

# 2025-26 UNIVERSITY OF MONTANA ACADEMIC CATALOG

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What's made at the University of Montana is remaking the world.

Founded in 1893, the University continues to reinvent the world as we know it through the courageous creativity of those who call it home.

Today, Montana is proud to have over 11,000 Grizzlies across a variety of studies, including undergraduate and graduate programs and technical certifications, all of whom contribute their passion and practicality toward stewardship and sustainability for the world around us. A top-ranked research university, Montana's impact is felt locally and globally, with Grizzlies going on to find success abroad as Rhodes Scholars and at home as Truman, Goldwater, and Udall Scholars. Known for unbridled curiosity and creativity unmatched on either side of the Rockies, the University of Montana strives to be both accessible and accountable — respected worldwide and responsive at home.

## Disclaimer

The University of Montana and its colleges and schools reserve the right to change the rules, the calendar regulating admission and registration, the instruction in and the graduation from the University and any other regulations affecting the student. The University also reserves the right to withdraw or adjust courses and programs as they appear in the catalog at any time. Please direct questions about the catalog and the information contained within to the Office of the Registrar or to the appropriate academic department.

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# ACADEMIC POLICIES, UNDERGRADUATE ADMISSIONS, AND ADVISING

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## Undergraduate Admission General Information

Undergraduate students are students who have graduated high school but have not yet been awarded a bachelor's degree. In addition, students who have already received a bachelor's degree and are returning to school for another undergraduate certificate, two-year, or four-year degree are also considered undergraduate students.

Applications for admission to undergraduate programs are managed by the Office of Undergraduate Admissions. The specific requirements for admission are outlined in the sections below. Applications are accepted from Montana residents, non-residents, and international students. Eligible undergraduate students may enroll either full-time or part-time. The University of Montana reserves the right to establish admission requirements that promote academic success.

### When to Apply: Dates and Deadlines

- University of Montana processes applications year-round.
- Applicants are encouraged to submit their applications 6-8 months prior to the start of the term of admission to ensure adequate time to arrange housing and financial aid, secure academic credentials, register for courses and attend orientation.
- **Recommended Application Deadlines:**
  - Autumn Semester: November 1
  - Spring Semester: October 1
  - Summer Semester: April 15
- **Final Application Deadline:**
  - One week before the start of the term. See the Undergraduate Admissions website (<https://umontana.edu/how-to-apply/dates-and-deadlines.php>) for specific dates.
- See International Student Admission for international application deadlines

### Admission Deferral Policy

- All applications are kept on file for one full academic year from the original application term (e.g., an application for Autumn 2024 may be updated to Autumn 2025).
- Applicants may defer their term or update their application during this one-year period without reapplying.
- After one year, a new application, application fee, and all required academic documents must be resubmitted.
- Scholarship offers are not deferred beyond the current academic year. Incoming student scholarships are evaluated annually.

- Applicants must inform the Office of Undergraduate Admissions of any changes to their original application. Most changes can be submitted via the online Admitted Student Portal.

### Accessing the Application

- The online application can be accessed via the Office of Undergraduate Admissions (<https://umontana.edu/apply.php>) website. Applicants should look for the application specific for their applicant type:
  - Freshmen, Transfer and Post-baccalaureate, and International: Apply Montana (<https://applymontana.mus.edu/>) or CommonApp (<https://www.commonapp.org/explore/university-montana/>).
  - Non-degree and Readmission: See "Other Applicants (<https://umontana.edu/how-to-apply/process/other-applicants.php>)."
- Application Fee: \$30
- The application fee is waived for Montana residents, active military personnel, and Veterans.
- NACAC and SAT fee waiver forms are accepted with appropriate documentation.

## Applicant and New Student Services

The following resources can be helpful to prospective and new students:

### Visitor Services

- Campus visits (<https://umontana.edu/visit.php>)

### Financial Aid/Cost of Attendance

- Scholarships (<https://umontana.edu/how-to-apply/scholarships.php>)
- Financial Aid (<https://www.umt.edu/finaid/>)
- Western Undergraduate Exchange (WUE) (<https://www.umt.edu/finaid/scholarships/non-resident-scholarships-for-entering-students/>)
- Residency Classification for Tuition Purposes (<https://www.umt.edu/admissions/residency.php>)

### Accessibility and Inclusion

- Office of Disability Equity (ODE) (<https://www.umt.edu/disability/>)
- UM Diversity Initiatives (<https://www.umt.edu/diversity/>)
- Military and Veterans Services Office (MVS) (<https://www.umt.edu/veterans/default.php>)

### Immunizations and Housing

- UM Housing (<https://www.umt.edu/housing/>)
- Immunization Requirements (<https://www.umt.edu/curry-health-center/new-students/default.php>)

### New Student Course Registration and Orientation

- Freshmen Core Course Registration ([https://www.umt.edu/office-student-success/for-students/freshmen\\_course\\_registration.php](https://www.umt.edu/office-student-success/for-students/freshmen_course_registration.php))
- Course Placement Exams:
  - Math Placement (<https://www.umt.edu/office-student-success/for-students/mathplacement/default.php>)
  - Writing Placement (<https://www.umt.edu/office-student-success/for-students/writplacement/default.php>)
  - Foreign Language Placement (<https://www.umt.edu/world-languages-culture/student-resources/language-placement.php>)



- Chemistry Placement (<https://www.umt.edu/office-student-success/for-faculty-staff/placement.php>)
- New Student Orientation (<https://www.umt.edu/orientation/>)

## Dual Enrollment

Dual enrollment is designed to provide Montana high school students with the opportunity to earn college credit through Missoula College.

UM Missoula College and local high schools work together to provide these opportunities to their students. Check with your high school counselor to see if your school offers dual enrollment with Missoula College.

For more information see Missoula College Dual Enrollment Program (<https://www.umt.edu/missoula-college-dual-enrollment/>)

## Contact Information

University of Montana

Office of Undergraduate Admissions

Gilkey Center, 950 Arthur Avenue, Missoula, MT 59812

Main line: 406-243-6266

Toll-free: (800) 462-8636

Email: [beagriz@umontana.edu](mailto:beagriz@umontana.edu)

## Standardized Tests

SAT or ACT scores are not required for general admission if a student can show high school completion or the equivalent. However, students who have taken these tests are encouraged to submit their scores for course placement purposes. Individual programs or scholarships, such as the Davidson Honors College scholarships, may require SAT or ACT scores. Students are advised to consult program websites for more information.

## Conditional Admission

UM Mountain Campus applicants who do not meet academic eligibility requirements may be considered for conditional admission. Students must show evidence of potential for success at UM to be considered for conditional admission.

Students considered for conditional admission will be asked to supply an up-to-date unofficial academic transcript. Students may also submit for consideration other supporting documentation not available in the initial application, such as:

- academic improvement plans
- letters of recommendation
- personal statement
- evidence of supplemental coursework
- standardized test scores
- documentation from healthcare provider

Students admitted to UM conditionally will be granted full admission after completing 24 credits with a grade point average of at least 2.0. Students are expected to complete the 24 credits within two semesters, but must complete them within three semesters. In cases where academic preparation falls well below the general preparation or GPA standards for the admission type, applicants will be directed to

the Missoula College where courses can be taken to strengthen their preparation for success at the University of Montana.

International undergraduate applicants who meet academic eligibility requirements but who do not meet the English language proficiency requirements for undergraduate admission will be considered for international conditional admission. See International Conditional Admission (Pathway Program)

## Special Enrollment Processes and Limitations

### Intra-Campus Transfer

- Students transferring from Missoula College or Bitterroot College to the UM Mountain Campus must meet the academic eligibility requirements of UM Mountain Campus.
- Transfers between UM campuses may affect scholarship, financial aid eligibility, tuition assessment, and registration.
- Students enrolled full-time at one campus can take a maximum of six credits at another campus without changing campus enrollment.

### Procedure for Intra-Campus Transfer

- For students never previously enrolled at the transfer-to campus:
  - Complete an Admission Change Form from the Admitted Student Portal (<https://www.umt.edu/admissions/admitted-student-checklist/default.php>) (new students).
  - Complete the Intra-Campus Transfer Form (<https://www.umt.edu/registrar/forms/default.php>) and submit to the Office of Undergraduate Admissions (continuing students).
- For students previously enrolled at the transfer-to campus:
  - Complete the Intra-Campus Transfer Form (<https://www.umt.edu/registrar/forms/default.php>) and submit to the Office of the Registrar.

## Programs Leading to Professional Licensure

As required by federal regulations (34 CFR §668.43) and in compliance with the State Authorization Reciprocity Agreements (SARA) Manual, the University of Montana indicates for each state whether the curriculum of a program meets or does not meet the educational requirements for licensure or certification in that state or indicates that no determination has been made.

The University of Montana cannot guarantee any state licensure or certification authority will approve or deny an application for licensure. Furthermore, disclosures provided by UM may not account for changes in state requirements. Current and prospective students are encouraged to contact their state's licensure authority or review the University of Montana Professional Licensure page (<https://www.umt.edu/provost/students/professional-licensure/default.php>) for all licensure and certification requirements pertaining to their state.

## Risk Assessment

The University of Montana-Missoula reserves the right to deny or condition admission, readmission, or continuing enrollment if an individual is deemed to present an unreasonable risk to campus safety and welfare. Factors considered include:

- History of violence or destructive tendencies
- Behavioral issues on other college campuses
- Rehabilitative therapy completion.

## Admissions Review (Safety & Security)

- No applicant's admission may be barred automatically, solely by reason of a criminal conviction, if state supervision has terminated, or solely by reason of a youth court adjudication.
- The admissions officer reviews applicants for academic eligibility and may refer an application to the Office of the Vice President for Student Success and Enrollment Management if there are concerns about an applicant's potential risk to campus safety and welfare. The Office of Community Standards will then request any additional necessary documentation.
- Additional information may be requested in cases involving:
  - Felony convictions
  - Adjudications of being a danger to others or self
  - Suspensions or expulsions for disciplinary reasons from other educational institutions
  - Other factors suggesting the applicant may present an unreasonable risk to the campus

## Direct Admission to Departmental Programs

Departments reserve the right to set additional admission standards for direct entry to their programs. Students are advised to check the respective academic department websites for more information on program-specific admission requirements.

Applicants seeking direct entry to selective programs will be reviewed for general admission to the university through the Office of Undergraduate Admissions. The Office of Undergraduate Admissions will admit the student to the appropriate pre-major program or pre-professional advising track. Application for direct entry to the degree program is an additional, separate process administered by the academic department. The student should consult the department website and work with their assigned academic advisor to understand program-specific application procedures.

## Distance Education

Distance status is designed for students who are registering for completely online courses only.

Students seeking to study fully online must meet the same admission requirements as students studying on campus.

Fully online students are not required to meet immunization requirements. Students who change their status to include some or all on-campus classes will be required to submit immunization records.

## Application Completion

Admission to University of Montana is based on self-reported educational accomplishments provided at the time of application. All admission offers are conditional upon verifying the accuracy of self-reported information through official documentation.

The Office of Undergraduate Admissions retains the right to rescind an offer of admission or change a student's campus if final official transcript(s) show that a student is no longer eligible for admission or that the student misreported academic accomplishments at the time of application.

## Completing an Application File

To complete an application file, an admitted student must submit final official copies of all transcripts.

- "Final" means that all coursework is complete and all final grades have been assigned and posted on the transcript. High school transcripts must show the graduation date, which must be prior to the transcript print date.
- "Official" means that the transcript has been issued directly to the Office of Undergraduate Admissions by the previous institution and has not been in the student's possession, except in cases where a transcript is issued to a student in a sealed envelope and the envelope remains unopened. In such cases, the student must submit the transcript to the Office of Undergraduate Admissions in the original, sealed envelope.

Transcripts submitted by the student or student's parent, except in cases where the transcript remains in the original, sealed school envelope, are not considered official and will not be accepted to meet this application completion requirement.

Only electronic transcripts submitted via an approved transcript clearinghouse (i.e. Parchment, National Student Clearinghouse) will be accepted as official. Faxed transcripts are not accepted, except for MACRAO fax from MUS institutions.

Students should request that transcripts be sent to the following address:

Office of Undergraduate Admissions

University of Montana

Gilkey Building

950 Arthur Avenue.

Missoula, MT 59812

beagriz@umontana.edu

Application files still missing final transcripts by the 15<sup>th</sup> class day for the first term of enrollment will be considered incomplete. Students will be notified and course registration will be restricted for future terms until the required documents have been submitted.

## Freshman (First-Time Undergraduates) Admission

Freshman students are those who have completed high school or its equivalent and who have completed fewer than 12 college-level semester credits at another institutionally recognized (<https://mus.edu/borpol/bor300/301-5.pdf>) college or university after high school graduation. Students who have earned any college-level course credit or advanced credits before graduating from high school are also considered incoming freshmen.

## Academic Eligibility

The following admission standards are relevant for new, first-time freshmen.

## Admission to Missoula College & Bitterroot College Undergraduate Degree Programs (2-year) and Certificates

Freshmen meeting at least one of the following requirements are eligible for admission to Missoula College:

- High school graduation from a high school accredited by a state accrediting agency, or

- high school equivalency completion assessment (GED or HiSET) with a minimum passing overall score, or
- ACT composite score of 19, or
- SAT combined score of 1010

## Admission to UM Undergraduate Degree Programs (4-year) and Certificates

### General Preparation

Freshmen students seeking first-time full-time general entry to UM's four-year degree and certificate programs must have received or be on track to receive a high school diploma or high school equivalency certificate and meet at least one of the following requirements:

- a minimum 2.50 cumulative high school grade point average, or
- a class rank in the upper half of their high school graduating class, or
- a minimum HiSET combined score of 50, or
- a GED combined score of 580 (minimum passing overall score).

Alternatively, freshmen students who have not completed a high school diploma or high school equivalency may demonstrate academic eligibility with one of the following:

- a minimum ACT composite score of 22, or
- a minimum SAT combined score of 1120

AND

Successful completion of the following college preparatory program:

- Four years of English.
- Three years of math, including Algebra I, Geometry and Algebra II (or the sequential content equivalent of these courses). Students are encouraged to take a math course in their senior year.
- Three years of social studies, including global studies (i.e. world history or world geography); American history; and government, economics, American Indian history or other third year courses.
- Two years of laboratory science. One year must be earth science, biology, chemistry, or physics; the other year can be one of those sciences or another approved college prep laboratory science.
- Two years chosen from the following:
  - foreign language (preferably two years), or
  - computer science, or
  - visual and performing arts, or
  - vocational education units.

Students must also meet minimum proficiency scores in Math and English.

Students must demonstrate a minimum math proficiency score of:

- 22 on the ACT Math section, or
- 27.5 on the SAT Math test, or
- 3 or above on the AP Calculus AB or BC subject examination, or
- 4 on the International Baccalaureate (IB) calculus exam, or
- 50 or above on the CLEP subject examinations in selected topics [college algebra, college algebra-trigonometry, pre-calculus, calculus, or trigonometry]

In lieu of the above score requirement, students can complete a rigorous high school core including four years of mathematics in high school (Algebra I, Algebra II, Geometry & a course beyond Algebra II) and three years of laboratory science; or three years of mathematics including a

course beyond Algebra II and four years of laboratory science with grades of C or higher.

Students must meet a minimum Writing Proficiency score of:

- 18 on the Combined English/Writing section of the Optional Writing Test of the ACT, or
- 7 on the Writing Subscore of the ACT, or
- 25 on the Writing and Language test of the SAT, or
- 3 on the AP English Language or English Literature Examination, or
- 4 on the International Baccalaureate (IB) Language A1 Exam, or
- 50 on the CLEP Subject Exam in Composition, or
- 3.5 on the Montana University System Writing Assessment.

In lieu of the above score requirement, students can demonstrate a cumulative high school GPA of 3.0 or higher or a cumulative high school GPA of 2.5 or higher AND a course grade of C or better in the 11<sup>th</sup> grade English course.

Freshmen who meet general preparation requirements but who have not demonstrated Math and English language proficiency levels at the time of admission will be provisionally admitted. They will be required to sit for placement testing prior to first-term registration. Students who do not meet Mathematics and Writing proficiency requirements after testing will be advised to enroll immediately in Math and Writing coursework and will be encouraged to complete that coursework in their first 30 credits.

### Eligibility Exemptions & Special Circumstances

- Non-traditional Freshmen (students who do not enter college for a period of at least three years from the date of high school graduation or from the date when they would have graduated from high school) are exempt from the general preparation and Math and English language proficiency requirements for bachelor's degree programs listed above.
- Freshmen with non-traditional or exceptional academic backgrounds and who do not meet one or more general preparation requirements may be eligible for conditional admission to UM and may be encouraged to submit materials beyond what is required to provide a holistic and accurate picture of their academic preparedness. See Conditional Admission. Home school students and students in unaccredited high schools are strongly encouraged to submit SAT or ACT or high school equivalency test results in addition to other required materials.
- Students younger than 17 at the time of application will be reviewed for both academic and social-emotional preparedness for full-time study. They may be asked to supply additional materials to demonstrate their preparedness for college attendance.

## How to Apply

A complete application to the University of Montana consists of the following items. It is the responsibility of the applicant to ensure that all documents are submitted properly and on time. Applicants must initiate requests to have final credentials sent to the University of Montana. *Credentials that have been opened, faxed or emailed by the student or parent or submitted in an unsealed envelope are considered unofficial copies and will not be accepted to meet official documentation requirements.*

### Required Documents:

#### 1. Admission Application:

- The online application is available via the Office of Undergraduate Admissions website (<https://www.umontana.edu/apply/>).

- Applicants unable to access the online application should contact the Office of Undergraduate Admissions.
- Ensure the application is fully completed and signed before submission.

## 2. Application Fee:

- A non-refundable fee of \$30 is required with your application.
- This fee is payable once at the undergraduate level if followed by enrollment.
- Payment records are kept on file for one year for those who do not enroll immediately.
- The application will not be processed until the fee is paid.
- Application Fees are waived for Montana residents, Veterans and active military personnel.

## 3. Final High School Transcript:

- A final transcript must be sent directly from the high school to the Office of Undergraduate Admissions after graduation.
- The transcript must include the graduation date and final GPA.
- Transcripts are essential for verifying eligibility for admission and scholarships.

## 4. Immunization Records:

- All students, with the exception of students who are registered as fully online, must submit immunization records prior to the start of the first term of enrollment.
- It is crucial that the immunization record is complete, accurate, and validated by a health official.

## Additional Documents (if applicable):

### 5. ACT/SAT Scores:

- While optional in most cases, ACT/SAT scores can be submitted to assist with admission decisions and academic placement.
- To qualify a student for admission using ACT or SAT scores, an official copy of the score report should be sent directly from the testing agency or included on an official high school transcript.
- Score reports submitted directly by students or parents are acceptable only for use in course placement and are not sufficient for admission purposes.

### 6. College/University Transcripts:

- Applicants with prior college or university attendance (including dual enrollment or early college credit) must send official transcripts from each institution directly to the Office of Undergraduate Admissions after all final grades are posted.
- For electronic transcript submissions, institutions should use a secure transmission service (i.e. Parchment or National Student Clearinghouse).

### 7. Advanced Credit

- Applicants should request that official scores for advanced exams (e.g. AP exams or IB exams) be sent directly to the Office of Undergraduate Admissions.
- See the Office of Undergraduate Admissions website ([https://www.umt.edu/admissions/admission-requirements/advanced-](https://www.umt.edu/admissions/admission-requirements/advanced-credits/default.php)

[credits/default.php](https://www.umt.edu/admissions/admission-requirements/advanced-credits/default.php)) for more information on credit award for advanced credit exams like IB and AP.

## Important Notes:

- Ensure all documents are submitted by the stated deadlines.
- Incomplete applications may result in delays or non-consideration for admission.
- Contact the Office of Undergraduate Admissions for any questions or clarification needed during the application process.
- **Home School Students:** Students graduating from a home school or unaccredited high school should follow the application procedures for Home School Admission (<https://www.umt.edu/admissions/admission-requirements/other-applicants.php>) on the Admissions website.
- **High School Equivalency:** Students completing a High School Equivalency assessment (HiSET or GED) should follow the application procedures for Traditional Freshmen with GED/HiSET (<https://www.umt.edu/admissions/admission-requirements/freshman-requirements.php>) on the Admissions website.
- **Dual Enrollment Credit:** Dual enrollment/Early College credits are not used in the determination of applicant status (MUS DE Guidelines, Section 6), but they are used in the determination of a student's Satisfactory Academic Progress (<https://www.umt.edu/finaid/maintaining-eligibility/SAP/>) at UM.
- **UM Dual Enrollment Students:** Admission to the UM-Missoula College Dual Enrollment program does not imply admission to UM, Missoula or Bitterroot College undergraduate programs. Current or former UM-Missoula College Dual Enrollment students must complete application procedures for Freshmen to be considered for undergraduate admission. Dual enrollment credit awarded from UM-Missoula College is included in the student's UM academic record and submission of the UM transcript is not required.

## Transfer Admission Academic Eligibility

Transfer applicants must meet the following criteria to be eligible for admission to the University of Montana (UM) Mountain campus:

- **GPA Requirement:** A minimum cumulative GPA of 2.0 (on a 4.0 scale) for all college-level coursework completed after high school.
- **Credit Requirements:** Twelve or more university-level (non-remedial) semester credits earned after high school at institutions whose accreditation is recognized by the Montana University System (MUS) (Policy 301.5 (<https://mus.edu/borpol/bor300/301-5.pdf>)).
- Transfer applicants who have completed less than twelve university semester credits will automatically be reviewed based on freshmen requirements.

## How to Apply

To apply for transfer admission, students must submit the following documents:

### Required Documents:

#### 1. Admission Application:

- Complete and submit the online application available on the Admissions website (<https://umontana.edu/how-to-apply/process/undergraduate.php>). Applicants unable to access the online application should contact the Office of Undergraduate Admissions.



- Ensure the application is fully completed and signed before submission.

## 2. Application Fee:

- A non-refundable fee of \$30 is required with your application.
- This fee is payable once at the undergraduate level if followed by enrollment.
- Payment records are kept on file for one year for those who do not enroll immediately.
- The application will not be processed until the fee is paid.
- Application Fees are waived for Montana residents, veterans, and active military personnel.

## 3. College/University Transcripts:

- Applicants must send an official transcript from each institution attended after high school directly to the Office of Undergraduate Admissions.
- For electronic transcript submissions, institutions should use a secure transmission service.
- A student transferring from a Montana University System institution can request a Single Admissions File (<https://www.mus.edu/transfer/SingleAdmFile.html>) ("Transmittal") to meet the transcript requirement. The transmittal will include copies of all official transcripts, as well as immunization records and test scores previously submitted.

## 4. Immunization Records:

- All students, except those registered as fully online, must submit immunization records prior to the start of the first term of enrollment.
- The immunization record must be complete, accurate, and validated by a health official.

## Additional Documentation (if applicable)

### 5. Dual Enrollment Transcripts:

- While not required at the time of application, official dual enrollment or early college transcripts must be sent from each institution directly to the Office of Undergraduate Admissions prior to enrollment.
- For electronic transcript submissions, institutions should use a secure transmission service.

### 6. Advanced Credit:

- Upon admission, applicants should request that official scores for advanced exams (e.g., AP, IB, CLEP, DSST) be sent directly to the Office of Undergraduate Admissions.
- More information on credit awards for advanced options and credit for prior learning is available on the Admissions website.

## Important Notes:

- Deadlines and document submission requirements are outlined in the General Admissions requirements section of the catalog.
- Dual enrollment/Early College credits are not used in the determination of applicant status, but they are used in the determination of a student's Satisfactory Academic Progress (<https://www.umt.edu/finaid/maintaining-eligibility/SAP/>) at UM.

# Transfer Credit Evaluation

At the University of Montana the Office of Undergraduate Admissions is responsible for transfer credit evaluation for undergraduate students in cooperation with academic departments. Below are details on how transfer credits are evaluated, the types of credits accepted, and the steps for requesting a review or re-evaluation of your transfer credits.

## Definitions

- **Transfer Course Evaluation:** The process by which the University of Montana reviews and assesses courses completed at other institutions to determine their equivalency to UM courses. This evaluation includes verifying the academic level, content, and credit value of the courses to establish how they will be credited towards the student's degree requirements at UM.
- **Credit Articulation:** The formal recognition and recording of transfer credits by the University of Montana. This process involves converting evaluated transfer courses into UM equivalent courses or General Education credits and recording them in the student's academic record.
- **Transfer Rules:** The set of guidelines and equivalency standards used by the University of Montana to determine how courses completed at other institutions translate to UM courses. These rules are established through the Transfer Course Evaluation process and are periodically reviewed for accuracy and relevance.
- **Course Equivalent:** A course equivalent refers to a course completed at another institution that is recognized as having substantially similar content, level, and learning outcomes to a course offered at the University of Montana. This recognition allows the transfer course to fulfill the same academic requirements as the UM course.
- **Credit for Prior Learning (CPL):** Credit for Prior Learning, previously known as Prior Learning Assessment (PLA), refers to the recognition and awarding of academic credit for college-level knowledge and skills gained outside the traditional academic environment. This can include learning acquired through work experience, military service, professional certifications, independent study, and other non-collegiate educational experiences. The credit is granted based on an assessment that the prior learning meets the standards and requirements of University of Montana's academic programs.
- **Course Substitution:** Course substitution is the process by which a student is allowed to replace a required course in their degree program with a different course that has similar content and rigor. Unlike course equivalents, which are established by the Office of Undergraduate Admissions to apply broadly to all students and involve the establishment of Transfer Rules, course substitutions are approved on a case-by-case basis by the relevant academic department. This process is specific to individual students and does not involve the Office of Undergraduate Admissions or result in changes to Transfer Rules.

## Transfer Course Evaluation and Credit Articulation Policies

### Transfer Course Evaluation

- The Office of Undergraduate Admissions determines whether courses are college-level, appropriate grading and credit conversion, and applicability towards UM's General Education requirements.
- College-level courses are courses that are applicable toward an Associate's or Baccalaureate Degree at UM or Missoula College. College-level credits from institutions accredited by one of the accrediting agencies listed in the Montana Board of Regents Policy

301.5 (<https://mus.edu/borpol/bor300/301-5.pdf>) are deemed to be transferable.

- Credits from institutions that are candidates for accreditation by one of the listed agencies are accepted after the student completes 20 semester credits with a 2.0 GPA at UM.
- Credits from remedial or developmental courses, or from non-accredited schools, are not applicable toward a degree and will not be accepted. See the Appeal of Admission Decisions section for more information.
- Credits from institutions outside the U.S. may be transferrable if the institution and academic program are recognized by the country's Ministry of Education. Students with international credentials must submit them for independent credential evaluation before UM can determine eligibility for credit transfer. See the International section for information on submitting non-U.S. transcripts for international credit evaluation.
- The Office of Undergraduate Admissions reviews all transfer courses at the time of admission for newly admitted students and when requested through Transferology for current and prospective students. Priority for review of evaluation requests made through Transferology will be given in the following order: current students within one semester of graduation, current students not within a semester of graduation, prospective students.

### Grading and Equivalency

- Transfer courses graded C- or above may count towards General Education, Major, Minor, Concentration, or Certificate requirements.
- Freshman/sophomore courses (100/200 level) generally are not equivalent to junior/senior courses (300/400 level) and vice versa.
- UM accepts Associate of Arts (AA) and Associate of Science (AS) degrees from institutions with approved accreditation, satisfying lower-division General Education requirements. Associate of Applied Science (AAS) degrees focus on technical skills and do not necessarily satisfy all lower-division General Education requirements at UM.
- Transfer course grades are calculated separately as Transfer GPA and are not included in the UM institutional GPA.
- Transfer courses taken for quarter credit will be converted to semester credits upon evaluation (quarter units divided by 1.5 = semester units).
- The Office of Undergraduate Admissions works in collaboration with academic departments to review transfer courses for UM equivalents. Transfer courses are reviewed for UM course equivalents under the following conditions:
  - Transfer course shares the same or highly similar title to an active UM course in the same academic area
  - Transfer course and UM course have substantial overlap in content (i.e. 80% or more shared content)
  - Transfer course and UM course are offered at the same level (i.e. both lower-division or both upper-division).
- A transfer course that does not substantively match an existing UM course in content and level will be evaluated for elective credit and General Education credit only.

### Transfer Rules

- The Office of Undergraduate Admissions uses the Transfer Course Evaluation process to establish Transfer Rules for courses that have no prior record of evaluation.
- Transfer Rules will be posted to our transfer equivalency database, Transferology (<https://www.umt.edu/admissions/transferology.php>),

for public view and housed in Banner to be applied at the time of Credit Articulation. Transfer Rules do not have fixed expiration, but may be reviewed periodically for updates. If a transfer course or a UM course has been inactivated, the Transfer Rule will become inactive.

- Individual academic programs may set their own limits on the validity of a Transfer Rule to meet program requirements. This is often to ensure that their course work is relevant for state or national licensing requirements. Students should check with individual academic programs about the validity of their transfer credit to meet program requirements.

### Credit Articulation

- Only admitted and enrolled UM or Missoula/Bitterroot College students are eligible for Credit Articulation.
- Transcripts must be sent directly from previous institutions. Unofficial copies, such as those emailed by students or submitted in unsealed envelopes, will not be accepted.
- Students must request that official transcripts from U.S. institutions be sent to [beagriz@umontana.edu](mailto:beagriz@umontana.edu).
- UM will complete the Credit Articulation of all recognized transfer courses at the point of admission. Transfer courses completed subsequent to UM or Missoula College admission will be articulated upon receipt of the final official transfer transcript.

### Intra-Campus Transfer

- Missoula College and Bitterroot College are embedded colleges within University of Montana. Course credit earned while enrolled in an undergraduate program at any UM campus (Missoula, Bitterroot, Mountain) is considered institutional credit, not transfer credit, and is not evaluated by the Office of Undergraduate Admissions. For more information about transfer pathways between Missoula and Bitterroot Colleges and UM-Mountain campus, please contact the relevant Academic Advising office. See also Internal Campus Transfer.

### Articulation Agreements

UM maintains articulation agreements with various institutions to facilitate the transfer of credits. These agreements outline specific Course Equivalencies and ensure a smooth transition for students transferring to UM. Program transfer pathways can also be found using the Transferology (<https://www.umt.edu/admissions/transferology.php>) tool.

For a complete list of these agreements, please visit Articulation Agreements (<https://www.umt.edu/provost/faculty/articulation-agreements/>) on the Office of the Provost's website.

### Transfer Credit Re-evaluation

UM provides a structured process for re-evaluating transfer credits from recognized post-secondary institutions:

#### Re-Evaluation Process

- Students can request reconsideration of Transfer Course Evaluations by completing the Transfer Course Re-evaluation Form ([https://www.umt.edu/admissions/admission-requirements/transfer/transfer\\_course\\_re\\_evaluation\\_request.php](https://www.umt.edu/admissions/admission-requirements/transfer/transfer_course_re_evaluation_request.php)) available on the Office of Undergraduate Admissions website.
- The Office of Undergraduate Admissions will reconsider the Transfer Rule for previously evaluated courses, provided that additional detailed information about the course, such as a detailed course syllabus or outline is provided. The Office of Undergraduate

Admissions will work with individual academic departments when necessary to accurately re-evaluate a transfer course.

- The Office of Undergraduate Admissions does not guarantee that a change to the Transfer Rule will be approved.
- Transfer courses that have been approved for credit transfer but not equated to a UM course can be submitted to the student's Major, Minor, or Certificate department for consideration as a Course Substitution to meet graduation requirements.

## Documentation and Communication

- All Credit Articulations and Transfer Rules are documented in Banner. Credit Articulations are accessible to students and academic advisors through Degree Works, UM's degree audit software.
- Students will be advised via email when their Credit Articulation is complete and viewable in Degree Works.
- Students wishing to appeal the results of a Transfer Course Evaluation can consult the Appeal of Admission Decisions section.

## Evaluation Process for Credit for Prior Learning (CPL)

UM recognizes and awards credit for various forms of prior learning, such as learning demonstrated through advanced placement exams, workforce training, and other prior learning assessments according to the UM Credit for Prior Learning Guidelines (<https://www.umt.edu/faculty-senate/procedures/asrc-procedures-201/prior-learning-assessment-pla-guidelines-203.30.pdf>).

## Advanced Exam Credit

- UM awards credit for Advanced Placement (AP), International Baccalaureate (IB), College Level Examination Program (CLEP), and Project Lead The Way (PLTW) courses based on successful completion and assessment scores according to UM policies. Specific questions regarding Advanced Credits should be directed to the Office of Undergraduate Admissions.
- To have advanced exam credit evaluated, students should request official scores be sent to Office of Undergraduate Admissions for AP, IB, CLEP, and/or PLTW exams.
- UM will evaluate the scores based on existing policies and award appropriate credit. Applied credits will be reflected in Degree Works (Banner) and on the transcript as CPL credit.
- Specific advanced credit exam policies and approved articulations related to these exams are available on the Admissions website: Advanced Credit Options (<https://www.umt.edu/admissions/admission-requirements/advanced-credits/default.php>).

## Military Credit

- Military courses are reviewed for transfer credit based on the Joint Services Transcript (JST) and ACE Military Guide recommendations.
- It is recommended that students with military credit first connect with the Military and Veterans Services Office (MVSO) for help identifying and prioritizing military credits for transfer. Since transferring in a large volume of military credits can prompt a premature max credit review, the MVSO can help recommend the correct timing for the application of credit to meet student needs.
- To have military credit evaluated for transfer, students should request an official Joint Services Transcript (<https://jst.doded.mil/jst/>) be sent to the Office of Undergraduate Admissions.

- UM will evaluate the JST and grant the recommended elective credit based on the ACE Military Guide evaluation and MVSO recommendations.

## Other Credit for Prior Learning

- If prior learning is listed in the American Council on Education (<https://www.acenet.edu/Programs-Services/Pages/Credit-Transcripts/Students.aspx>) (ACE) National Guide (<https://www.acenet.edu/Programs-Services/Pages/Credit-Transcripts/Students.aspx>) students should order a working transcript from ACE with the course or exam listed and have it sent to the Office of Undergraduate Admissions. The Office of Undergraduate Admissions will grant credit based on the recommendation on the ACE working transcript.
- If the prior learning is not listed in the ACE guides, students should contact the academic department chair for the program overseeing the subject matter at UM. Students will be responsible for providing sufficient information about the course or experience to complete an evaluation. Once the department has evaluated the course or experience and approved the credit for transfer, the chair should notify the Office of Undergraduate Admissions for credit articulation.
- If a student wants the prior learning to reflect a specific UM course equivalent on the transcript, the Office of Undergraduate Admissions must receive written notification approving the specific UM course equivalent from the UM Department Chair for the academic subject matter.
- The Office of Undergraduate Admissions does not review prior learning for General Education credit. If a student wants prior learning to meet General Education requirements, the student can petition for course exemption through the General Education Committee per the General Education Transfer Appeal Guidelines 202.40.5 (<https://www.umt.edu/faculty-senate/procedures/202.40.5-genedtransferappealguidelines-3-23.pdf>).
- Only prior learning that is listed in the ACE guides or governed by existing policy (such as IB, AP, and Advanced Credit policies) will be viewable in the Transferology database. Most non-standard prior learning will require evaluation on an individual student basis.

## Post-Baccalaureate (Second Bachelor's Degree) Admission

Students who have earned an undergraduate bachelor's degree and would like to pursue another undergraduate bachelor's degree may apply with post-baccalaureate status.

Post-baccalaureate is an undergraduate degree-seeking status at UM. Students who have earned an undergraduate bachelor's degree and who are not intending to pursue a degree should apply either as:

- degree-seeking with an "undeclared" major through UM Undergraduate Admissions to take undergraduate classes at UM Mountain Campus or Missoula College, or
- as non-degree through the Graduate School (<http://www.montana.edu/gradschool/>) to take graduate-level classes or to take a combination of graduate and undergraduate classes.

Students not intending to pursue a degree must choose the level that best meets their needs as a student.

Students who previously attended University of Montana and who are returning after a break in attendance of fewer than 24 months are considered continuing students and can access registration without



reapplication. For previous UM students who are returning after a break in attendance of 24 months or more, see Former UM Students (Readmission).

## How to Apply

- To qualify for post-baccalaureate status, students must have been awarded or be on track to earn a four-year bachelor's degree from an institution whose accreditation is recognized by the Montana University System (MUS) (Policy 301.5 (<https://mus.edu/borpol/bor300/301-5.pdf>)).
- While there are no special degree-related or course requirements for general admission to the university as a post-baccalaureate student, individual academic programs may have prerequisites for entry into upper-division courses in the program area. Students should consult department websites and resources for additional requirements specific to the academic programs of interest.
- Post-baccalaureate applicants who have completed fewer than 90 semester credits at the time of application will be ineligible for post-baccalaureate status and will be reviewed for transfer admission. If the applicant can provide official proof of bachelor's degree award prior to the start of the initial term of enrollment, the student will automatically be reconsidered for post-baccalaureate status.
- Unofficial transcripts can be used to make a conditional decision on post-baccalaureate status pending receipt of official documents. Unofficial transcripts cannot be used to review for credit transfer.

### Required Documents:

#### 1. Admission Application:

- Complete and submit the application online available from the Office of Undergraduate Admissions (<https://umontana.edu/apply.php#undergraduate>) website. Students who have previously attended UM in a degree program should view the instructions in Former UM Students (Readmission).

#### 2. Application Fee:

- A non-refundable fee of \$30 is required with your application.
- This fee is payable once at the undergraduate level if followed by enrollment.
- Payment records are kept on file for one year for those who do not enroll immediately.
- The application will not be processed until the fee is paid. Application Fees are waived for Montana residents, Veterans, and active military personnel.

#### 3. Official College/University Transcript(s):

- Submit an official transcript from each institutionally recognized (<https://mus.edu/borpol/bor300/301-5.pdf>) accredited college and university attended to be awarded transfer credit and to have a previously awarded degree recognized. A final official transcript must be received in the Office of Undergraduate Admissions by the 15<sup>th</sup> class day of the first term of attendance. Academic eligibility will be reviewed again upon receipt of the final transcript.
- For electronic transcript submissions, institutions should use a secure transmission service and send the transcript to [beagriz@umontana.edu](mailto:beagriz@umontana.edu).

#### 4. Immunization Records:

- All students, except those registered as fully online, must submit immunization records prior to the start of the first term of enrollment.
- The immunization record must be complete, accurate, and validated by a health official.

### Important Notes:

- Deadlines and document submission requirements are outlined in the Undergraduate Admission - General Information section.
- A course-by-course evaluation will not be done for students who have previously earned a U.S. baccalaureate degree. General Education requirements are considered complete for these students. Academic advisors will be able to consult the official undergraduate transcript submitted with your application and apply Course Substitutions for degree requirements met through the first bachelor's degree. Please see Transfer Credit Evaluation (<https://www.umd.edu/admissions/apply/transfer/transfer-credits.php>) for more information.

## Former UM Students (Readmission)

Students who have previously enrolled in a credit-bearing degree or certificate program at University of Montana or Missoula College are considered returning students.

### Academic Eligibility

- Former students who have been absent from the University of Montana for 24 months or more must apply for Readmission before they can register for courses. Students who have been absent from UM for less than 24 months do not need to reapply and can work directly with their academic advisor to register for the next semester.
- This policy applies to both Missoula College and University of Montana-Missoula campuses.
- Students must be in good standing to be eligible for Readmission.
- Students who previously only attended UM with non-degree status, dual enrollment status, or through continuing education programs are not eligible for Readmission status and must apply using a new applicant status (Freshman, Transfer, Post-baccalaureate)

### Readmission to Academic Programs:

- Some academic programs at Missoula College require students who do not enroll for a semester or more (excluding summer) to apply for Readmission into that specific program. Check with your program for additional requirements.

## How to Apply

### Required Documents:

#### 1. Application Submission:

- All students who qualify for Readmission can use the simplified application for Readmission via the Admissions website (Other Applicants (<https://www.umd.edu/admissions/admission-requirements/other-applicants.php>)).
- Current or former UM non-degree, dual enrollment, or continuing education students who are now seeking degree status are not eligible to use the Readmission application and must apply using the undergraduate application (<https://umontana.edu/how-to-apply/process/undergraduate.php>).

#### 2. Application Fee:

- Former UM students who qualify for Readmission are not required to pay the undergraduate Application Fee unless they are changing from graduate to undergraduate status, or vice versa. The Application Fee

is only paid once at the undergraduate level for students who have subsequently enrolled.

### 3. Transcripts:

- Former UM students who have attended another college or university since their last attendance at the University of Montana-Missoula must submit official college transcripts from those institutions.

### 4. Immunization:

- Applicants for Readmission must comply with the immunization requirements as listed on the Curry Health Center (<https://www.umt.edu/curry-health-center/new-students/default.php>) website.

### Important Notes:

- Deadlines and document submission requirements are outlined in the Undergraduate Admission – General Information section of the catalog.
- UM students who have been absent less than 24 months and who have attended another institution in the interim do not need to reapply, but they must submit official transcript(s) from any post-secondary institution(s) they attended since the last term they enrolled at UM.

## International Admission

International applicants are non-U.S. citizens who do not hold U.S. permanent resident status ("green card") or a U.S. immigrant visa (<https://travel.state.gov/content/travel/en/us-visas/visa-information-resources/all-visa-categories.html>). International applicants must meet the following criteria to be eligible for admission to the University of Montana or Missoula College. U.S. applicants with education outside the U.S. must also meet the academic credential and evaluation report requirements for their international education.

### Application Deadlines:

Application deadlines for international applicants are set earlier than for U.S. applicants to provide sufficient time to complete the F1 visa application process.

### Priority Deadline:

The Office of Undergraduate Admissions will guarantee consideration of applications submitted by the priority application deadline.

- Autumn Semester: May 15
- Spring Semester: October 15

### Final Deadline:

Students who have been admitted have until the final international application deadline to submit all documentation required for I-20 consideration:

- Autumn Semester: June 15
- Spring Semester: November 15

## Academic Eligibility

International applicants will be considered for admission on the basis of their academic record and their English language proficiency. International applicants should identify their respective admission type (Freshman, Transfer, Post-Baccalaureate) and see the relevant section in

the Catalog for an explanation of the academic standards and admission requirements.

## International Credential Evaluation

- Any applicants who have completed education internationally through a non-U.S. institution must submit official transcripts for review and evaluation by an active member of the National Association of Credential Evaluation Services (NACES). (<https://www.naces.org/members/>)
- International credential evaluation includes verification of institutional accreditation and degree status, calculation of all grades on a standard U.S. scale, and conversion of all university-level credits to U.S. semester credits. The credential evaluation service will prepare a summary report which it will forward to the Office of Undergraduate Admissions on the applicant's behalf.
- Verified copies of educational credentials included in the credential evaluation summary report will meet official documentation requirements.
- The Office of Undergraduate Admissions will articulate credits recommended for transfer based on the international credential evaluation report. In most cases, credit approved for transfer will be articulated as elective credit. See the Transfer Credit Evaluation section for information on Transfer Course Evaluation, Re-evaluation and Credit Articulation.

## English Language Proficiency Requirements

University of Montana requires that all international students whose first language is not English establish English language proficiency before admission. Proficiency in English for study at the undergraduate level must be demonstrated through an approved exam or through specific exemption. English language test scores that are older than two years may not be accepted.

| Proficiency Examination                                                                    | Full Admission                                     | Conditional Admission |
|--------------------------------------------------------------------------------------------|----------------------------------------------------|-----------------------|
| TOEFL iBT and At-Home Edition (Including MyBest™ scores. University of Montana code: 4489) | 70                                                 | 52                    |
| TOEFL PBT                                                                                  | 525                                                | 470                   |
| IELTS Academic                                                                             | 6.0                                                | 5.0                   |
| Duolingo English Test                                                                      | 105                                                | 85                    |
| Cambridge English                                                                          | 180                                                | 165                   |
| iTEP                                                                                       | 3.8                                                | 3.4                   |
| PTE Academic                                                                               | 48                                                 | 41                    |
| TOEFL ITP                                                                                  | -                                                  | 470                   |
| EIKEN                                                                                      | Grade Pre-1                                        | -                     |
| UM English Language Institute                                                              | 525 TOEFL ITP or a recommendation from UM ELI      | -                     |
| ELS Language Center                                                                        | Successful completion of Program Level 112         | -                     |
| Kaplan International                                                                       | Successful completion of Higher Intermediate Level | -                     |
| English Language Centres                                                                   | Successful completion of Level 11                  | -                     |

|                      |                                    |
|----------------------|------------------------------------|
| Education First (EF) | Successful completion -<br>of C1-1 |
|----------------------|------------------------------------|

## Exemptions

Applicants who are citizens of the following countries need not submit proof of English language proficiency unless English is not the applicant's native language:

- Australia,
- Canada (except Québec),
- Ireland,
- New Zealand,
- The United Kingdom,
- Commonwealth Caribbean,
- and South Africa.

Exemptions to the English language proficiency testing requirement may be considered for applicants who can demonstrate any one of the following:

- Native language is English
- Two or more years of attendance at an institution of higher education where English is the primary language of instruction
- Completed an English composition course with a grade of "C-" or better from a U.S. college or university (online courses are not accepted)
- Completed 3+ years of secondary school with full English-medium instruction and have achieved a C or higher on the IGCSE English exam OR on the A-level English language exam
- Achieved a score of 4 or higher on the IB HL Language A: English Language and Literature or IB Language A: English Literature exam
- Achieved a score of 3 or higher on the AP English Language and Composition exam
- Achieved a 25 or higher on the SAT (Writing & Language section)
- Achieved a 07 or higher on the ACT (Writing section)
- Achieved an 18 or higher on the ACT (English Language Assessment)
- Completed 3+ years of secondary school with English-medium instruction in the following countries AND who have achieved a B3 or higher on the West African Senior Secondary Certificate Examination or a B or higher on the national GCE examination:
  - Botswana
  - The Gambia
  - Ghana
  - Kenya
  - Liberia
  - Nigeria
  - Sierra Leone
  - Uganda
  - Zambia
  - Zimbabwe
- Students requesting one of the above exemptions must provide an official credential evaluation report, and where applicable, an official standardized exam score. The Office of Undergraduate Admissions reserves the right to request students submit additional proof of English language proficiency, even if they are eligible for an exemption.

## Emerging Proficiency

The score thresholds listed above represent the minimum proficiency needed to fully participate in undergraduate study at University of Montana. If a student's score only meets or minimally exceeds the threshold, the student is still considered to have emerging proficiency and is encouraged to seek additional academic support to ensure timely passage toward a program of study leading to degree.

## International Conditional Admission (Pathway Program)

- International applicants who meet general academic eligibility requirements but who do not yet meet the English language proficiency requirements for full admission will be considered for international conditional admission.
- Students who receive an international conditional admission decision can request an update to full admission without re-applying under the following conditions:
  - The student submits an English language proficiency test score that meets full admission requirements prior to the start of their first term or enrollment, or
  - the student enrolls at the UM English Language Institute and remains continuously enrolled until either:
    - the student qualifies for the UM ELI English language proficiency exemption, or
    - the student submits an updated English language proficiency test score that meets the requirement for Full Admission.
- Proof of English language proficiency must be submitted to the Office of Undergraduate Admissions at least one week before the start of the semester the update is requested.

## I-20 Certificate of Non-Immigrant Student Status

- The Office of Undergraduate Admissions manages issuance of the I-20 Certificate for new degree-seeking international undergraduates and pre-approved international non-degree students. The I-20 Certificate is necessary to obtain an entry visa to the U.S. for full-time undergraduate study.
- Financial documentation needed for the I-20 process is not required for admission but will be required once an admissions decision has been made. See Financial Documentation for the I-20 (<https://www.umt.edu/admissions/admission-requirements/international/financial-docs-i20.php>). In certain situations, an international applicant may already possess a non-immigrant visa that permits some level of U.S. degree study; in these cases, an applicant should contact the Office of Undergraduate Admissions for individual advice regarding admission procedures.

## How to Apply

### Required Documents:

#### 1. Admission Application:

- Complete and submit the online application (<https://umontana.edu/how-to-apply/process/undergraduate.php>) via the Office of Undergraduate Admissions website or from the Common App. Applicants unable to access the online application should contact the Office of Undergraduate Admissions.
- Ensure the application is fully completed, that you have selected the University of Montana in the application, and signed the application.

#### 2. Application Fee:

- A non-refundable fee of \$30 is required with your application.
- This fee is payable once at the undergraduate level if followed by enrollment.
- Payment records are kept on file for one year for those who do not enroll immediately.
- The application will not be processed until the fee is paid.

### 3. English Language Proficiency Score Report

- Applicants must provide an official English language proficiency score report that meets or exceeds the posted score requirement to qualify for full undergraduate admission.
- Applicants petitioning for an exemption to the English language proficiency test score requirement must submit required documentation prior to an admission decision.
- Test scores must be ordered directly from the testing center and sent to:

Office of Undergraduate Admissions

University of Montana

Gilkey Building, 950 Arthur Avenue  
Missoula, MT 59812 USA

### 4. Academic Records:

- **U.S. education records:** Applicants who have attended U.S. institutions must send an official transcript from each U.S. secondary- or tertiary-level institution attended directly to the Office of Undergraduate Admissions. Applicants who have completed university-level study in the U.S. after completing secondary school must submit official transcript(s) to receive an admission decision.
- **International education records:** Applicants who have attended non-U.S. secondary or tertiary institutions must request an international credential evaluation that includes review of each institution attended. Applicants may select any member of NACES to complete the evaluation. University of Montana has relationships with the following NACES-recognized credential evaluation services:
  - SpanTran (<https://spanside.my.salesforce-sites.com/SpantranApplication/?Id=6e84fd68-0048-4b8b-b0b0-5e3ff82e7f44>)
  - Educational Credential Evaluators (ECE) (<https://accounts.ece.org/TPO/UM/>)
  - World Education Services (WES) (<https://www.wes.org/credential-evaluations/>)
- See the Academic Records and Eligibility (<https://www.umt.edu/admissions/admission-requirements/international/academic-records.php>) section on the Admissions website for additional guidance on ordering an international credential evaluation report.

### 5. Immunization Records:

- All students except those registered as fully online must submit immunization records prior to the start of the first term of enrollment.
- The immunization record must be complete, accurate and validated by a health official.

### 6. Additional Documentation (if applicable):

- **Advanced Credit:** Upon admission, applicants should request that official scores for advanced exams (e.g. AP, IB, GAC, A-levels) be sent directly to the Office of Undergraduate Admissions. More information

on credit awards for advanced options and credit for prior learning is available on the Office of Undergraduate Admissions website.

## Financial Documentation for I-20

Citizenship identification and financial documentation is not required for admission but will be required once an admissions decision has been made. To obtain the Certificate of Eligibility for Non-Immigrant Student Status (I-20), international students must submit:

- I-20 Application (available from the admission portal after admission)
- Certificate of Financial Responsibility, indicating student's understanding of financial responsibilities
- Proof of available funds to cover costs of attendance
- Copy of student's passport

See Estimated Expenses for the I-20 ([https://www.umt.edu/admissions/admission-requirements/international/expenses\\_scholarships.php](https://www.umt.edu/admissions/admission-requirements/international/expenses_scholarships.php)) for more information.

## Non-Degree (Visiting Students) Admission

An applicant who wishes to pursue studies for professional interest or personal growth and does not wish to work toward a formal degree at the University of Montana-Missoula may apply as a non-degree student.

### Academic Eligibility

- Each applicant must certify on the application for admission that they have graduated from a high school that is fully accredited by its State department of education or has passed the HiSET or General Educational Development (GED) test.
- Students 21 and under with fewer than 12 completed university credits will only be eligible for non-degree status at Missoula College.
- This category is not open to students currently on academic suspension from the University of Montana.
- Applicants admitted as undergraduate non-degree students are not eligible for financial aid or for transfer course evaluation.

### Former Students:

Former students of UM should use the Readmission application process instead of applying as non-degree. The online readmission application is available from the UM Admissions website (<https://umontana.edu/how-to-apply/process/other-applicants.php>).

### International Students:

International students seeking a study abroad experience (one semester or one year) who are sponsored by a UM-recognized study abroad organization can apply for undergraduate non-degree status. For information on approved study abroad organizations, please contact the Global Engagement Office (<https://www.umt.edu/global-engagement/about/default.php>). Other international students should see the International Admission section for relevant information on admission.

## Change to Degree-Seeking Status

If a person is admitted as an undergraduate non-degree student and later wishes to change to a degree program, they will be required to submit a new undergraduate degree-seeking application, furnish the required supporting credentials, and meet the regular admissions standards for the intended program.

## How to Apply

### Required Documents:

#### 1. Admission Application:

- Complete and submit the online application. The application for non-degree admission can be accessed through the “Other Applicants” section on the UM Admissions website (<https://catalog.umt.edu/academics/undergraduate-admission/file:///C:/Users/troy.morgan/Downloads/UM%20Admissions%20website/>).

#### 2. Application Fee

- The fee is \$30.00. This non-refundable fee is payable by non-Montana residents once at the undergraduate level, provided payment is followed by enrollment.
- Record of payment will remain on file for one year for students who do not enroll. An application cannot be considered prior to payment of this fee.
- The Application Fee is waived for applicants who paid the application fee once and are continuing enrollment at UM.

#### 3. Immunization Form:

- All applicants are required to submit a completed Medical Requirement Form to the Curry Health Center two weeks prior to matriculation. The form must be complete, accurate, and validated by a health official.

#### 4. Unofficial College Transcript (Students 21 and under only)

- Students 21 and under who are seeking non-degree admission should submit an unofficial college transcript showing completion of a minimum of 12 semester-level credits

### Important Notes:

- Application deadlines are outlined in the Undergraduate Admission – General Information section.
- Non-degree students should contact the Undergraduate Advising Center upon admission to obtain a registration PIN.

## Admission Decision Notification

Applicants to the University of Montana can expect timely updates regarding their application status. Below are the key details on the decision timeline, methods of notification, and types of admissions outcomes.

### Timing of Decisions:

- Decisions are made as soon as an application and all required documentation has been received.
- Most decisions are reached within 10 business days of application and document submission. Decisions may be delayed if application information or documentation is incomplete.

### Method of Notification:

- All applicants will receive an electronic notification via the email address provided in their application.
- Additionally, applicants can check the status of their application by logging into the online Admission Status Portal.

## Types of Decisions:

- **Admitted to University of Montana:** UM applicants offered admission will receive an acceptance letter outlining the next steps, including information on housing, orientation, and registration.
- **Admitted to Missoula College:** Missoula College applicants offered admission will receive an acceptance letter outlining the next steps, including information on housing, orientation, and registration.
- **Admitted Conditionally to UM.** UM applicants who do not meet academic eligibility requirements but who have been identified as having the potential for initial success on the UM-Mountain campus may be admitted conditionally. They will receive an acceptance letter stating the conditions of their admission.
- **International Conditional Admission.** *For international students only.* International applicants who do not meet the minimum English language proficiency requirements for full-time undergraduate study but are otherwise academically eligible may be considered for international conditional admission. Students receiving international conditional admission will receive an acceptance letter for the English Language Institute (ELI)’s programs, including next steps.
- **Denied for UM, Admitted to Missoula College:** UM applicants who do not meet academic eligibility requirements for UM-Mountain campus and who have the potential to benefit from academic supports available at Missoula College will be offered admission at Missoula College. They will receive a letter outlining next steps, including information about the pathway to university.
- **Ineligible:** Applicants who do not meet the general admission requirements will receive a letter explaining their ineligibility. While this decision is final for the current application cycle, ineligible applicants are encouraged to reapply in the future once they meet general admission requirements.

## Appeal of Admission Decisions

Applicants who disagree with an admission decision or related evaluations, such as transfer credit acceptance or residency classification, have the opportunity to request a reconsideration or submit an appeal through the appropriate University channels. Below is an outline of the appeal processes available for various admission-related decisions.

Initial questions regarding admission decisions, transfer credit evaluations, and initial residency classification should be directed to the Office of Undergraduate Admissions. If an appeal is appropriate, information about the appeal process can be obtained from the Office of Undergraduate Admissions.

## Admissions Reconsideration and Appeal (University of Montana)

Admission decisions to University of Montana – Mountain Campus are automatically reconsidered upon submission of final official transcripts. If a student had been denied UM admission based on a self-reported GPA, but a final transcript or updated official score report provides evidence that the student has met admission requirements, the student will be offered admission to UM. Conversely, if the final transcript provides evidence that the student has not met admission requirements for UM, the student’s offer of admission to UM will be rescinded. They may be invited to start their educational journey at Missoula College.

The University’s admission policies comply with Montana State regulations and faculty-authorized requirements. It is the responsibility



of the Office of Undergraduate Admissions to apply these standards consistently and fairly. The faculty recognizes that exceptions should be granted occasionally for students in unusual situations. Students denied admission to University of Montana-Mountain Campus may appeal the decision. Appeals should be directed to the Office of Undergraduate Admissions and should contain significant and compelling new information, which may include extenuating circumstances, not contained in the original application. Since applications are already carefully reviewed, very few decisions are overturned upon appeal. Students who were denied admission to UM are encouraged to explore their educational options, including enrollment at Missoula College.

Any request for appeal must be submitted by the application deadline for the initial term of enrollment.

## Credit Transfer Reconsideration and Appeal

- Office of Undergraduate Admissions decisions regarding credit transfer from institutions with recognized accreditation (<https://mus.edu/borpol/bor300/301-5.pdf>) are final. Students wishing to seek exception for non-college level credits, credits earned at unaccredited institutions, or credits earned at institutions with accreditation that is not recognized by MUS Board of Regents can request review by the Provost, Registrar, and Director of Admissions (MUS BoR Policy 301.5, Section F.1 (<https://www.mus.edu/borpol/bor300/301-5.pdf>))
- Admissions decisions about the application of credits can be re-evaluated. Students wanting to update a transfer rule or to petition for General Education credit for transfer courses from institutions with MUS-recognized accreditation should start the re-evaluation process with the Office of Undergraduate Admissions. See Transfer Credit Evaluation.
- Course re-evaluation decisions for general Education credit are final with the exception of writing courses. Students wishing to appeal an admissions decision for an introductory or intermediate writing course can submit a course exemption petition through the faculty Writing Committee following the Transfer Credit Appeal Guidelines for Introductory and Intermediate Writing Courses. (202.50.5 (<https://www.umt.edu/faculty-senate/procedures/asrc-procedures-201/writing-exemption-appeal-202.50-11-3-21.pdf>))
- Students with approved Credit for Prior Learning (CPL) who wish to petition for General Education credit should follow the procedure listed in the General Education Transfer Appeal Guidelines (202.40.5 (<https://www.umt.edu/faculty-senate/procedures/202.40.5-genedtransferappealguidelines-3-23.pdf>))

## Residency Review and Appeal

Requests from students seeking reconsideration of Montana residency status for fee purposes are evaluated based upon the Montana Board of Regents Policy ([https://www.mus.edu/Prepare/College/Montana\\_Residency\\_Requirements.asp](https://www.mus.edu/Prepare/College/Montana_Residency_Requirements.asp)). All new and newly returning students should contact the Office of Undergraduate Admissions regarding the reconsideration process and submission of required documentation. Continuing students who wish to request reconsideration of residency classification should read the Student Guide to Montana's Residency Policy ([https://www.mus.edu/Prepare/College/Student\\_Guide\\_to\\_Residency\\_Pol.pdf](https://www.mus.edu/Prepare/College/Student_Guide_to_Residency_Pol.pdf)) and contact the Office of the Registrar with additional questions.

## Residency Review

The Office of Undergraduate Admissions will conduct a review of initial residency classification for any new or newly returning student classified as out-of-state at the point of admission. Students must initiate this process by contacting the Office of Undergraduate Admissions. Students requesting review will be asked to submit supporting documentation per MUS BoR Policy on Residency (940.1 (<https://www.mus.edu/borpol/bor900/940-1.pdf>)). The residency review decision is final for the Office of Undergraduate Admissions.

Students must go through the Residency Review process before they will be allowed to appeal to the campus Residency Classification Committee.

### Residency Review Deadline:

Requests for review of initial residency classification must be submitted to the Office of Undergraduate Admissions by the deadlines below to guarantee review and access to the appeal process. Requests for review submitted after these deadlines and before the 5<sup>th</sup> instructional day may be reviewed on a case-by-case basis.

- Autumn: One week before the start of classes
- Spring: One week before the start of classes
- Summer: One week before the start of the second 5-week summer session.

## Residency Appeal

- Students who are classified as out-of-state after Residency Review can submit an appeal to be heard by the campus Residency Classification Committee. New students and newly readmitted students must initiate this process with the Office of Undergraduate Admissions.
- The final deadline for submitting documentation for a Residency Appeal is the 5<sup>th</sup> instructional day of the semester for which a student is seeking an in-state residency classification.
- Newly enrolled students who do not meet the Residency Review or Appeal deadlines for the first term of enrollment have the opportunity to petition for re-classification in a future term through the Office of the Registrar.

# Academic Policies and Procedures

## Registration and Course Information

### Academic Calendar

The academic calendar for the current academic year, as well as past and future years, may be found on the Office of the Provost's academic calendar webpage (<https://www.umt.edu/provost/academiccalendar/>).

### Registration for Courses

Students who have no prior attendance at the University of Montana must apply for admission and be admitted before being eligible to register for courses. For additional information on admission to the University, see the following webpages:

- Undergraduate admissions catalog page (p. 12)
- Undergraduate admissions website (<https://www.umt.edu/admissions/>)
- Graduate policies catalog page (p. 440)



- Graduate admissions webpage (<https://www.umt.edu/grad/apply/default.php>)

Detailed instructions regarding registration and course offerings are available on the Office of the Registrar webpages for registration information (<https://www.umt.edu/registrar/registration/default.php>).

Course offerings may be found using UM's Course Search tool (<https://www.umt.edu/registrar/registration/browse.php>).

Students must complete course registration during the scheduled registration period or be subject to payment of a late registration fee if allowed to register. Registration is not complete nor is any academic credit awarded until all course tuition and fees for the semester have been paid.

## **Adding, Dropping, and Other Course Changes**

All guidelines and timelines that follow refer to the traditional autumn and spring semesters, which are generally 74-75 days in length. The timelines that apply to shorter sessions, including all summer sessions, are adjusted in proportion to the length of the session. Specific dates are listed on the Registrar's Office calendar web page (<http://www.umt.edu/registrar/calendar.php>). Please see the S (<http://www.umt.edu/business-services/Students/default.php>) Student Account Services website (<https://www.umt.edu/business-services/students/default.php>) for information regarding how fees are impacted by dropping/adding courses as well as the refund schedule for a complete withdrawal from the University of Montana.

### **Adding, Dropping, or Other Course Changes – First Through Fifth (1 – 5) Instructional Day of the Semester**

During this timeframe, students may use GrizPortal to add courses, drop courses, change grading options, and/or change variable credits. Access to GrizPortal for adding courses or changing sections ends after the fifth day of classes.

### **Adding, Dropping, or Other Course Changes – Sixth Through Fifteenth (6 – 15) Instructional Day of the Semester**

During this timeframe, with consent of the course instructor, students may add courses or change sections with an instructor-approved electronic override via GrizPortal. Fees are reassessed each night during this time period. Added courses and credits may result in additional fees.

Students may drop courses, change grading option (including audit), and/or change variable credits via GrizPortal through the fifteenth day.

### **Adding, Dropping, or Other Course Changes – Sixteenth Through Forty-fifth (16 – 45) Instructional Day of the Semester**

During this time frame, students must use the Course Add/Change/Drop link to collect permissions from both the course instructor and student's advisor to:

1. drop/add a course
2. perform changes to section, grading option, or variable credit loads

The ability to change to or from audit is no longer available at this time.

A \$20.00 processing fee is charged for each drop or add. Added courses and credits may result in additional fees. There are no refunds or reductions of fees for courses dropped after the 15th day (or equivalent).

Approved course drop requests must be received by the Registrar's Office no later than close of business on the forty-fifth instructional day of a semester. A grade of W (withdrawn) is recorded for each dropped course.

## **Adding, Dropping, or Other Course Changes – Forty-sixth Instructional Day of the Semester Through One Week Before the Last Regular Class Day Adds & Changes**

During this time frame, students must use the Course Add/Change/Drop link to collect permissions from both the course instructor and student's advisor to add a course, change the grade option, or change variable credits.

Changing to or from audit is not permitted during this time.

Not all requests for adds, changing grade options, or changing variable credits are approved. Advisors have the right to indicate they do not recommend approval of the request. However, it is the course instructor's decision to approve or deny the request to add/change a course.

Approved course add and course change requests must be received by the Registrar's Office no later than one week before the last day of regular classes. A \$20.00 processing fee is charged for each course add. Added courses and credits may result in additional fees.

## **Drops**

During this time frame, students may drop courses only by petition. Students must use the Course Add/Change/Drop link to collect permissions from the course instructor, student's advisor, and Dean of the student's major.

Note that not all petitions are approved and that documented justification is required. Some examples of documented circumstances that may merit approval are: accident or illness, family emergency, or other circumstances beyond the student's control. Instructors and advisors have the right to indicate they do not recommend the drop. However, it is the decision of the Dean of the student's major to approve or deny the request to drop courses.

Approved course drop requests must be received by the Registrar's Office no later than one week before the last day of regular classes. A \$20.00 processing fee is charged for each drop. There are no refunds or reductions of fees for courses dropped, and the instructor assigns a grade of WP (withdrawn/passing) if a student's course work has been passing or WF (withdrawn/failing) if failing. These grades do not affect grade averages but they are recorded on a student's transcript.

The opportunity to drop a course for the current term ends one week before the last day of instruction before scheduled final exams. Dropping a course taken in a previous term or altering grading option or audit status for such a course is not allowed. The only exceptions are for students who have received a grade of NF (never attended/fail).

Law School students - see the School of Law website (<https://www.umt.edu/law/>) add and drop deadlines for law courses.

## **Cancellation of Courses**

The University reserves the right to cancel any course.

## **Common Course Numbering - Montana University System**

All universities, 4-year and 2-year colleges that are part of the Montana University System are required to use the same course numbering for undergraduate courses. With common course numbering, transfer

students can be reassured that they will receive credit for undergraduate courses taken at another Montana institution as long as the admitting institution offers that same course. This transparency will make it easier for students to continue their higher education at any state-supported campus.

Effective Autumn Semester 2009, all units of the Montana University System (MUS) began to offer classes using new subject abbreviations and new numbers that are common across all MUS units. Subject areas and numbers continue to be renumbered as of the publication of this catalog. Information regarding Common Course Numbering at the University of Montana is available at the Common Course Numbering web page (<https://ccn.mus.edu/search/>).

## Withdrawal from the University

Students who withdraw from the University (withdrawing from all classes) while a semester is in progress must complete the Semester Withdrawal Form (<https://www.umt.edu/withdrawal/default.php>). Drop/add forms cannot be used to withdraw, and students are not allowed to drop all their courses via GrizPortal. International students must first contact a coordinator in the Global Engagement Office before withdrawing as visa status will be affected.

See the withdrawal website (<https://www.umt.edu/withdrawal/how-to.php>) for more information.

If a student receiving financial aid withdraws, they may have to repay aid received in the current semester, and it may affect eligibility in future semesters. If a student stops attending classes without formally withdrawing, they too may have to repay aid received in the current semester and may be ineligible for aid in future terms.

Students who reside in a University residence hall, University Villages, or Lewis & Clark Villages must notify the proper officials in the UM Housing Office (<http://www.umt.edu/housing/>) of the withdrawal.

Students who purchase health insurance (<https://www.umt.edu/curry-health-center/insurance/default.php>) with registration will receive a refund and lose coverage if withdrawn during the first fifteen instructional days unless a student is granted a withdrawal for medical reasons. Withdrawal after the fifteenth day will not result in a refund but coverage will continue through the remainder of the semester.

Students must electronically submit a Semester Withdrawal Form (<https://www.umt.edu/withdrawal/default.php>) to the Office of the Registrar by the final instructional day of the semester. No record of registration will appear on the transcript if a student withdraws within the first 15 instructional days (or the equivalent for irregular sessions). From instructional day 16 through the last regular class day, W's will be recorded for all registered courses. After the final instructional day of the semester, students may not withdraw from the University.

Upon semester withdrawal approval, eligible students may file a Mitigating Circumstances Appeal with the Dean of Students to be considered for a partial tuition refund. Mitigating circumstances are catastrophic, unanticipated, and life-altering events that are beyond a student's control. These circumstances prohibit the student from continuing to be enrolled and require the student to withdraw on or before the published withdrawal deadline. Mitigating Circumstances Appeals must be submitted **no later than 30 days following the final instructional day of the semester** during which the mitigating circumstances occurred. Such an appeal will only be granted to an individual student one time.

This appeal has no bearing on a student's financial aid appeal and is not the appropriate venue to resolve or appeal academic matters.

Further criteria for eligibility:

- The mitigating circumstances prevented the student from remaining enrolled in the semester, and the student has already submitted a semester withdrawal form.
- The mitigating circumstances took place after the 15<sup>th</sup> instructional day of the semester and before the final day of the semester.
- The student has not been granted a Mitigating Circumstances Appeal for any past semester.
- For all medical and health-related appeals, the student has supplied documentation on the medical provider's letterhead certifying that the student could not complete the semester and confirming the health-related mitigating circumstances with the dates that verify the onset and/or worsening of the condition(s).
- A Mitigating Circumstances Appeal has no bearing on a student's financial aid appeal. If applicable, a financial aid appeal must be filed separately with the Financial Aid Office.

Examples of eligible mitigating circumstances include, but are not limited to:

- A debilitating illness or injury, new or unanticipated, afflicting the student during the enrollment period;
- The death of a close family member;
- Unanticipated active-duty military service, including training.

## Prerequisites and Corequisites

"Prerequisite" indicates that the course(s) or requirement(s) described must have been satisfactorily completed with a grade of C- or better, unless otherwise specified in the course description in the catalog, before the student may take the course that requires the listed prerequisite.

Failure to complete the prerequisite with the requisite grade will result in the student being dropped from the course that requires the prerequisite. If credit for a prerequisite was earned via the Advanced Placement (AP) Examination Program, the AP score is recorded on a student's academic record with a grade of "CR\*" (prior to Autumn Semester 2012), or a score of AP3, AP4, or AP5 (Autumn Semester 2012 and thereafter).

"Corequisite" indicates a course (or courses) must be taken concurrently – in the same academic term – with the course described. In some cases a corequisite may be completed prior to the semester in which the course that requires the co-requisite is taken.

## Course Numbering System

- 001-099 Courses below college level. Credit not allowed toward a degree.
- 100-199 Primarily for freshmen.
- 200-299 Primarily for sophomores.
- 300-399 Primarily for juniors.
- 400-499 Primarily for seniors.
- 500-699 Primarily for graduate students.
- Senior (5th year) courses in Pharmacy are numbered 500 to 599.

## Undergraduates in Graduate Courses

Post-baccalaureate students and seniors holding a 3.0 or greater grade point average may, with consent of instructor, enroll in 500-level courses

for undergraduate credit. Variance from these requirements cannot be petitioned.

## Equivalent Courses

In certain cases, a course description indicates credit is not allowed for a particular course and for another course offered by a different department. These courses are very similar in content, although offered separately, and credit is not allowed toward a degree for both courses.

## Full-Time Student Defined

In most baccalaureate programs a student must earn at least 15 credits per semester to graduate in a four year period. One- and two-year programs usually require enrollment in between 15 and 19 credits per semester.

### Undergraduate Students

- Full Time: 12 or more enrolled credits
- 1/2 Time: 6 -11 enrolled credits
- <1/2 Time: 5 or fewer enrolled credits
- Not Enrolled: 0 enrolled credits (withdrawn/graduated, etc.)

### Graduate Students

- Full Time<sup>1</sup>: 9 or more enrolled credits
- 1/2 Time: 6 – 8 enrolled credits
- <1/2 Time: 5 or fewer enrolled credits.
- Not enrolled: 0 enrolled credits (withdrawn/graduated, etc.)

<sup>1</sup> One credit of PSYX 638 per semester is equivalent to full-time enrollment for students in the Clinical Psychology Ph.D. Program. One credit of PSYX 588 (equivalent to PSYX 638) per semester is equivalent to full-time enrollment for students in the School Psychology PhD Program.

## Maximum Credit Load

Generally, an undergraduate student should register for no more than 21 credits during a semester. The credit load would include physical education activity courses and also remedial courses (those numbered below 100), credits from which do not count toward a certificate or degree.

Permission to enroll for more than the maximum credit load may be approved by the student's academic advisor.

## Final Examinations

Final examinations for the semester are scheduled in two-hour segments, one for each course. The segments should be considered as class meetings to be treated by the instructor as they think is educationally appropriate. The time scheduled for final examinations is the only time period during which final examinations are to be given. If an instructor elects not to give a final examination during the designated week, under no circumstances are final examinations to be given during the week preceding the scheduled final examination days.

Students may seek relief from writing more than two examinations during the same day. Students who are scheduled for more than two examinations may contact the appropriate faculty to arrange an alternate testing time during the scheduled final examination period. If satisfactory arrangements cannot be made, the student should seek the assistance of the Dean of their major college.

## University Employee Registration

University employees who have applied and have been accepted for admission to the University may register with the approval of the employee's supervisor. Waivers of some tuition may be granted to qualifying faculty and staff members who are at least three-quarter-time salaried employees on the date of registration. Additional information and the necessary forms are available in the Office of Human Resource Services (<http://www.umn.edu/hrs/>).

## Grading and Academic Standing Information

### Grading System

The University uses two types of grading: traditional letter grades and credit/ no credit grades. At the option of the instructor, some courses are offered only on the traditional letter grade basis or only on the credit/ no credit basis. Other courses are open to either type of grading, at the option of the student. Courses offered on the A - F basis only or CR/NCR only will be indicated in the Course Search under Class Details.

The instructor has the first fifteen (15) class days of the semester to change the grading option for their course. If a change does occur from the original published grading option, the students in the class and the Registrar's office must be notified of the change not later than the fifteenth (15) class day.

### Traditional Letter Grading (A-F)

Traditional Letter Grades represent an assessment of the overall quality of work performed in a given course.

- A =Excellent;
- B = Good;
- C = Satisfactory;
- D = Poor;
- F = Failure

When assigning traditional letter grades, instructors may, at their discretion, utilize the symbols + or -. Use of the + or - will be limited to A-, B+, B-, C+, C-, D+, and D-.

Grades preceded by an R indicate remedial courses. Remedial courses do not count in credits earned, nor in grade point averages, nor do they count toward graduation.

Grades preceded by an E indicate academic forgiveness was granted.

Other grade symbols used are:

- I = Incomplete;
- N = work on the course may be continued in later semesters. When work is completed, the final grade assigned applies to all semesters of the course;
- NF = no record of academic performance/failing;
- W = withdrawal from a course or course dropped after the fifteenth instructional day;
- WP = course dropped after the forty-fifth instructional day with passing work;
- WF = course dropped after the forty-fifth instructional day with failing work;
- AUD = auditor registration.

### Course Audit

A grade of AUD is recorded for all students who register in courses as auditors, intending to listen to the courses without earning credit or being graded. Audited courses do not impact a student's grade point average. The same fees are assessed as when registering for credit.

Any attendance or participation expectations are established by the instructor of the course. If attendance expectations are not met, the instructor may request a notation be placed on the student's academic record indicating attendance was not satisfactory.

### Credit/No Credit Grading (CR/NCR)

Student Option: To encourage students to venture into courses where they might otherwise hesitate because of uncertainty regarding their aptitude or preparation, they may enroll in some courses on a credit/no credit basis. Freshmen and sophomores are discouraged from taking more than one course a semester on a credit/no credit basis.

No more than 18 CR credits may be counted toward graduation requirements at the baccalaureate level. Courses taken to satisfy General Education Requirements must be taken for traditional letter grade. Courses required for the student's major or minor must be taken for traditional letter grade.

A grade of CR is assigned for work deserving credit (A through D-) and a grade of NCR is assigned for work of failing quality (F). CR and NCR grades do not affect grade point averages. The grades of CR and NCR are not defined in terms of their relationship to traditional grades for graduate course work.

Election of the credit/no credit option must be indicated upon registration or within the first 15 class days in GrizPortal. Between the 16th day and the last day of instruction before finals week, a student may request a change from credit/no credit enrollment to an enrollment under the A-F grade system, or the reverse, by means of a Course Add/Change/Drop request. Please note that not all such requests are approved. See instructions above.

The University cautions students that many graduate and professional schools and some employers do not recognize non-traditional grades (i.e., those other than A through F) or may discriminate against students who use the credit/no credit option for many courses. Moreover, students are cautioned that some degree programs may have different requirements regarding CR/NCR credits, as stipulated in the catalog.

### No Credit Grading in Composition (NC)

Students enrolled in WRIT 095 and WRIT 101 are graded by the traditional letter grades of A through F or are given NC for no credit. The NC grade is awarded when exceptional progress has occurred but the student needs to repeat the course. The NC grade does not affect grade point average.

### Incomplete Grade Policy

It is assumed that students have the responsibility for completing the requirements of the courses in which they are enrolled within the time framework of the semester.

A grade of Incomplete (I) may be given when, in the opinion of the instructor, there is a reasonable probability that students can complete the course without retaking it. If an Incomplete is granted, the student should not re-register for the course as that is considered a course repeat.

The incomplete is not an option to be exercised at the discretion of a student. In all cases it is given at the discretion of the instructor within the following guidelines:

1. A mark of incomplete may be assigned students when:
  - The student has regularly attended and completed passing work for most of the semester, and
  - For reasons beyond the student's control and which are acceptable to the instructor, the student has been unable to complete the requirements of the course on time. Negligence and indifference are not acceptable reasons.
2. The instructor sets the conditions (including the deadline; maximum/default is one calendar year) for the completion of the course work.
3. When a student has met the conditions for making up the incomplete, the instructor will assign a grade based upon an evaluation of the total work done by the student in the course.
4. An incomplete which is not made up within one calendar year automatically will revert to the alternate grade which was assigned by the instructor at the time the incomplete was submitted.
5. Faculty are required to report both the alternate grade and the deadline for all incomplete work submission; this information is collected at the point of grade submission.
6. An incomplete remains on the permanent record and is accompanied by the final grade, for example, IA, IB, IC, etc.

### Faculty Options for Grading Mode

- A faculty member may elect to grade an entire class using the traditional letter grading option (A-F).
- A faculty member may elect to grade an entire class using the credit/no credit option (CR/NCR). This method of grading is used in courses where more precise grading is inappropriate.
- A faculty member may elect to grade an entire class with the open grade mode option which allows students to choose between traditional letter grading and credit/no credit grading. When a course is offered with the open grade mode option, then the default grading at the time of registration defaults to traditional letter grading. It is the student's responsibility to make the change to credit/no credit grading if this is their preference.
- Faculty members must choose the grade mode option for their courses at the time when courses are being proposed for a particular semester or within the first 15 instructional days of the semester.
- For the Spring semester of 2021 only, a faculty member may elect to add the open grading mode up until the 45th instructional day.
- Courses graded credit/no credit only and courses graded A-F only will be identified in the Course Search under Class Details.

### Credit Definition

Credit is defined in terms of semester hours. Credits for all coursework completed at the University of Montana is awarded in accordance with the Department of Education's regulations as set forth in 34 C.F.R. § 600.2 (<https://www.ecfr.gov/current/title-34/subtitle-B/chapter-VI/part-600/subpart-A/section-600.2/>) and defined in University of Montana Faculty Senate Procedure 201.35 (<https://www.umt.edu/faculty-senate/procedures/asrc-procedures-201/credit-hour-definitions-201.pdf>).



In general, in determining semester hour recommendations, the following guidelines are used:

1. One semester credit hour for each 15 hours of classroom contact plus 30 hours of outside preparation or the equivalent per semester; or
2. One semester credit hour for each 30 hours of laboratory work, practica, studio work, and similar activities, plus necessary outside preparation or its equivalent per semester, normally expected to be 15 hours; or
3. One semester credit hour for not less than 45 hours of internship work or shop instruction or the equivalent per semester.

## Class Standing

The undergraduate student is classified as a freshman, sophomore, junior, or senior based on the number of credits earned.

- Freshman = 0–29 credits
- Sophomore = 30–59 credits
- Junior = 60–89 credits
- Senior = 90 credits or more

Class standing for priority registration includes credits that are in progress for the current semester, but does not include credits for future semesters (e.g. summer credits when calculating for the following autumn.)

## Computation of Cumulative Grade Point Average

Quality points are assigned as follows:

- 4 quality points for each credit of A;
- 3.7 quality points for each credit of A-;
- 3.3 quality points for each credit of B+;
- 3 quality points for each credit of B;
- 2.7 quality points for each credit of B-;
- 2.3 quality points for each credit of C+;
- 2 quality points for each credit of C;
- 1.7 quality points for each credit of C-;
- 1.3 quality points for each credit of D+;
- 1 quality point for each credit of D;
- 0.7 quality points for each credit of D-.

The cumulative grade average is computed by dividing the total quality points earned by the total number of credits attempted, excluding courses assigned W, WF, WP, CR, NC, NCR, I, AUD, or N grades and courses numbered under 100 (grade is preceded by an R).

For repeated courses, excluding courses assigned W, WF, WP, NC, NCR, I, AUD, or N grades, only the last grade earned will count toward the cumulative grade average.

Grades for courses transferred from other colleges and universities are not included in the calculation of the grade point average.

## Repeating a Course

The repeat fee is covered when a student pays the \$25.00 student support fee as part of their semester registration bill.

Initial grades will be marked as repeated and remain on the transcript, but they will not be used in the GPA calculation. Grades of AUD, I, N, NC, NCR, NP, NF, W, WP, or WF may not be used to replace grades. An F grade will be used to replace grades. If the last grade received is an F, no credit is given for previous passing grades. All courses repeated remain on the permanent record but only the last grade received is used to determine credits earned. Only the last grade received is used in calculating the grade point average.

If students receiving federal financial aid repeat a course previously passed they can only receive financial aid to do so a second time. On a third attempt the course will not be counted in the enrollment status for determining aid eligibility.

If enrollment in a course is closed, a student who is repeating or auditing the course may be required by the instructor to drop the course. This rule grants enrollment preference to those students attempting to register for the course for the first time for credit. It is the responsibility of the student who is not allowed to remain in the course to formally drop the course to avoid a failing grade for that course.

Repeating a course in the School of Law is governed by a different policy. Law School students - see the School of Law website (<https://www.umd.edu/law/>) for course repeat information.

## Credit By Examination

Under certain circumstances, a currently registered student may receive credit by examination for a course in which he or she has not been regularly enrolled. The student must have a minimum cumulative grade average of 2.00 and an entering freshman must present a high school scholastic record equivalent to a 2.00 grade average to be eligible to earn credit by examination in any course.

Each school or department may determine those courses, if any, for which credit may be earned by examination. The Dean of the school or the Chair of the department must approve any arrangements prior to testing for such credit. On the successful completion of an examination, credits earned will be entered into the "Transfer Credit" portion of the student's transcript and will not count toward the credit load for the current semester. There are no fees for this type of credit by examination and grading may be credit/no credit or traditional letter grade.

## Undergraduate Academic Performance

The cumulative grade average is calculated by dividing the total quality points earned by the total number of credits attempted, excluding courses assigned W, WF, WP, CR, NC, NCR, I, AUD, or N grades and courses numbered under 100 (grade is preceded by an R). Grades for courses transferred from other colleges and universities are not included in the calculation of the grade point average.

## Dean's List

To qualify for the Dean's List, students must be undergraduates, must earn a semester grade average of 3.50 or higher, and receive grades of A or B in at least 9 credits. No grades of C+, C, C-, D+, D, D-, F, NC or NCR are allowed

## 4.0 President's List

To qualify for the 4.0 President's List, students must be undergraduates, must earn a semester grade average of 4.0, and receive a grade of A in at least 9 credits. No grades of NC or NCR are allowed



## Undergraduate Academic Warning

An undergraduate student will be placed on academic warning if at the end of any fall or spring semester their cumulative University of Montana grade average drops below 2.00. No student will be placed on academic warning following any summer semester enrollment. The effect of the academic warning is to serve notice to the student that the quality of their work is below an acceptable level and that continuation of unsatisfactory work during their next semester of enrollment will result in academic suspension. The academic warning status is recorded on the student's academic transcript and semester grades. Students placed on warning should contact their academic advisor immediately to seek assistance and direction.

## Undergraduate Academic Suspension

An undergraduate student will be placed on academic suspension at the end of any fall or spring semester if the student was on academic warning during their prior semester of attendance and the student's cumulative grade average remains below 2.00. No student will be placed on academic suspension following any summer semester enrollment.

Exceptions are made if the student earns at least a 2.00 grade average for the current semester without raising their cumulative grade average to the required minimum. In such cases, students remain on academic warning.

A student placed on academic suspension may not re-enroll at the University unless they have been reinstated. Reinstatement will require, at minimum, one full semester of non-enrollment at any campus of the Montana university system. Academic suspensions are noted on final grades and academic transcripts. Additional information can be found on the Office for Student Success Academic Standing web page ([http://www.umt.edu/oss/for\\_faculty\\_staff/acadstand.php](http://www.umt.edu/oss/for_faculty_staff/acadstand.php)).

## Reinstatement from Academic Suspension

As noted above, an undergraduate student will be academically suspended at the end of a semester if placed on academic warning during the previous semester of attendance and the student's cumulative University of Montana graduate point average (CGPA) remains below the 2.00 CGPA required for good academic standing.

Students who have been suspended for academic reasons and seek reinstatement must complete an Academic Reinstatement Plan with the reinstatement contact for the college or school in which they intend to enroll. Upon completion of the Academic Reinstatement Plan, the student must then receive the approval of the academic dean or the dean's designee. Academic reinstatement contacts on the Mountain Campus and at Missoula College can be found on the Office of the Registrar Academic Suspension and Reinstatement (<https://www.umt.edu/registrar/academic-standing/reinstatement.php>) website. It is strongly recommended that students complete the Academic Reinstatement Plan at least three business days prior to the start of the semester for which they intend to enroll.

Typically, retroactive grade changes, dropped courses, or withdrawals do not reverse the academic suspension status that is recorded on the transcript unless there was an error or grading mistake.

Academic reinstatement is not automatic. On the Academic Reinstatement Plan, the student must provide the reasons for previous poor academic performance along with a carefully prepared plan for improvement that is completed with the help of an academic advisor who serves as the reinstatement contact for their college or school. A student denied reinstatement may appeal the denial in writing to the President

of the University within ten days of receiving the notice of denial. The decision to deny reinstatement normally will not be reversed unless there is evidence the decision was made arbitrarily.

If a suspended and reinstated student has not attended UM for more than two years, the student must also complete an Application for Readmission through the Undergraduate Admissions Office. The readmission form re-activates the student's record and, along with the Academic Reinstatement Plan form, allows the student to register for courses.

## Appeal of Academic Suspension

Students may appeal a suspension in cases where there are compelling and documented circumstances. If the appeal is approved by the dean of the student's college, the student may return to the university without sitting out a semester. Appeals are considered where the student has otherwise demonstrated an ability to succeed at the university and the compelling circumstances that led to the poor performance have been resolved.

An appeal of academic suspension will only be granted one time, on the approval of the appropriate dean. See the Appeal of Suspension Form (<http://www.umt.edu/registrar/PDF/AppealofSuspension.pdf>), which details eligibility criteria and appropriate procedures.

## Academic Forgiveness

- A University of Montana-Missoula or Missoula College undergraduate, seeking their first undergraduate degree, who returns to the university after a minimum absence of three years and completes 30 credits of academic study with a minimum cumulative University of Montana GPA of 2.5 is eligible for Academic Forgiveness.
- Academic Forgiveness allows a student who has met the requirements above to select a prior semester or semesters they wish to have excluded from calculation in the cumulative University of Montana GPA. The semester(s) chosen must have occurred prior to the student's return to the university.
- Receiving Academic Forgiveness for a semester or semesters results in all credits and grades earned in the semester to be excluded from the student's GPA calculation. A student will not be allowed to select specific grades and credits to retain while excluding others earned within the same semester. The excluded courses and grades will remain on the transcript; however, they may not be used to fulfill any university requirements.
- Only University of Montana-Missoula or Missoula College grades and credits will be excluded.
- All excluded courses are still counted as attempted courses in determining if a student is meeting the pace standard of the financial aid satisfactory academic progress (SAP) policy. If the terms being forgiven include courses a student previously passed the result could be that the student would now be out of compliance with the SAP policy and would have to do a financial aid appeal to have aid eligibility reinstated.
- A student will be granted Academic Forgiveness only one time.
- Students who receive Academic Forgiveness will be bound by the University Catalog in effect at the time of their return to The University or any subsequent catalog in accordance with University policy.
- Students wishing to apply for Academic Forgiveness will contact the Registrar's Office for the appropriate form. The Registrar's Office will be responsible for verifying eligibility and notifying the student of approval.

- Other options exist for students who have not left the university, such as course repeat, withdrawals, and other mechanisms listed under academic policies in this catalog.

Students wishing to apply for Academic Forgiveness may obtain the form on the Registrar's website at: Academic Forgiveness web page (<https://www.umt.edu/registrar/students/academicforgivenesspolicy.php>).

## Transcript of Academic Record

An official transcript of a student's academic record may be obtained via secure online ordering through the National Student Clearinghouse or from the Registrar's Office in the sixth floor of Aber Hall Center upon the written and signed request of the student. In compliance with federal and state laws designed to protect student privacy, transcripts are not released without the student's authorizing signature. Copies ordered via National Student Clearinghouse can be delivered electronically, hard copy or direct electronic data exchange.

Transcripts are usually available within two to five working days after receipt of the signed request. There is a charge for each official transcript. Payment must be received before transcripts are released. Special handling requests require extra fees.

Additional information regarding ordering options and fees may be viewed via the Registrar's Website (<https://www.umt.edu/registrar/students/Transcripts%20and%20Verifications.php>).

Any student who enrolled after summer semester 1991 may view their academic record in the GrizPortal.

## Student Rights and Responsibilities

### Privacy and Release of Student Education Records (FERPA)

#### What is FERPA?

FERPA (Family Educational Rights and Privacy Act) was enacted in 1974. It is a set of regulations that applies to those institutions, such as the University of Montana, that receive funding from the Department of Education.

FERPA was written specifically for students and guarantees them the right to inspect and review their education records, the right to seek to amend education records, and the right to have some control over the disclosure of information from those education records.

#### Education Records

Under FERPA, education records are defined as records that are directly related to a student and are maintained by an education agency or institution or by a party acting for the agency or institution. Education records can exist in any medium, including: typed, computer generated, videotape, audiotape, film, microfilm, microfiche and email, among others.

#### Education records DO NOT INCLUDE such things as:

- Sole possession records such as records or notes in sole possession of the maker, used only as a personal memory aid and not revealed or accessible to any other person except a temporary substitute for the maker of the record. (This might include notes an instructor makes while providing career or professional guidance to a student.)
- Medical treatment records that include but are not limited to records maintained by physicians, psychiatrists and psychologists.
- Employment records when employment is not contingent on being a student, provided the record is used only in relation to the individual's employment.

- Records created and maintained by a law enforcement unit used only for only that purpose and revealed only to law enforcement agencies of the same jurisdiction, as long as the enforcement unit does not have access to education records.
- Post-attendance records such as information about a person obtained when the person was no longer a student (e.g., alumni records) and does not relate to the person as a student.

## Resources for Students

### Notification Regarding Release of Student Directory Information

The Family Educational Rights and Privacy Act (FERPA) of 1974 (20 U.S.C. § 1232g; 34 CFR Part 99) is a federal law that protects the privacy of student education records. "Education records" are "those records, files, documents, and other materials which 1) contain information directly related to a student; and 2) are maintained by an educational institution. (20 U.S.C. § 1232g(a)(4)(A); 34 CFR § 99.3). FERPA applies to all schools that receive funds under an applicable program of the U.S. Department of Education.

Generally speaking, FERPA allows the University to disclose education records or personally identifiable information from education records in the following circumstances: with the written consent of the student, if the disclosure meets one of the regulatory exemptions, or if the disclosure is directory information and the student has not placed a hold on release of directory information.

The University defines the following information as directory information:

- Student's name
- Address (mailing, permanent and email)
- Telephone number
- Dates of attendance
- Degrees and honors received
- Major and minor field(s) of studies
- Class
- Participation in officially recognized activities and sports
- Most recent previous educational agency or institution attended by the student
- Weight and height, if student is a member of an intercollegiate athletic team

FERPA allows the University to release a student's directory information to anyone unless the student formally requests confidentiality by completing a form from the University Office of the Registrar.

### NO to Release of Directory Information

If you do not wish to authorize the release of directory information and do not want your directory information to appear in the University Student Directory, you must inform the Office of the Registrar of this by completing a *Request to Restrict Directory Information form* which can be obtained from the Registrar's Office Website (<http://umt.edu/registrar/>). You should allow at least three business days for processing.

### You should be aware ...

You should be aware that restricting the release of your directory information has other consequences. For instance, a FERPA restriction makes it difficult or impossible for potential employers to verify your enrollment, or to verify the fact that you have earned a degree from the University. The University cannot notify your home town paper about awards and honors you receive (e.g., Dean's list). For this reason alone, many students choose to remove their FERPA restriction.

## Change from NO to YES

At any time after restricting the release of your directory information, you may change your mind and choose to authorize the University to release directory information and for it to appear in the University Student Directory. You can grant such authorization at any time by going to the Registrar's Office in Aber Hall, Floor 6 with a valid photo identification or by completing a *Request to Rescind Restriction Directory Information form* which can be obtained from the Registrar's Office Website (<http://www.umt.edu/registrar/>).

## Notification of Students' Rights Under FERPA

FERPA also affords students certain rights with respect to their education records. These rights include:

1. The right to inspect and review the student's education records within 45 days of the day the University receives a request for access.

To inspect and review their education records, a student should submit to the registrar, dean, head of the academic department, or other appropriate University official or office having custody of the particular record(s), a written request that identifies the record(s) the student wishes to inspect. The school official will make arrangements for access and notify the student of the time and place where the records may be inspected. If the records are not maintained by the school official to whom the request was submitted, that official shall advise the student of the correct official to whom the request should be addressed.

2. The right to request the amendment of the student's education records that the student believes are inaccurate, misleading, or otherwise in violation of the student's privacy rights under FERPA. (*This process cannot be used to challenge a grade.*)

A student who wishes to ask the University to amend a record should write the appropriate University dean or director responsible for custody of the record, clearly identify the part of the record the student wants changed and specify why it should be changed. If the University decides not to amend the record as requested, the University will notify the student in writing of the decision and the student's right to a hearing regarding the request for amendment. Additional information regarding the hearing procedures will be provided to the student when notified of the right to a hearing.

3. The right to provide written consent before the University discloses personally identifiable information from the student's education records, except that the University may disclose the following information without a student's consent:
  - a. Disclosure to school officials with legitimate educational interests. A school official is a person employed by the University in an administrative, supervisory, academic, research, or support staff position (including, but not limited to University Police Department personnel, and Curry Health staff). A school official has a legitimate educational interest if the official needs to review an education record in order to fulfill their professional responsibilities for the University.
  - b. A contractor, consultant, or other outside service provider retained to provide various institutional services and functions under contract or by statute instead of using University employees or officials (including, but not limited to an attorney, auditor, collection agent, information systems specialist, teaching affiliate, and clinical mentor);
  - c. The University's affiliated Foundation;

- d. A person serving on the Board of Regents, staff in the Office of the Commissioner of Higher Education, the Institutional Review Board, and any other University board, committee or council; or a student serving on an official committee, such as a disciplinary or grievance committee, or assisting another school official in performing their tasks.
- e. Compliance with a lawfully issued subpoena or judicial order.
- f. Requests in connection with a student's application for financial aid.
- g. Information submitted to accrediting organizations.
- h. To other agencies or institutions that have requested the records and in which the student seeks or intends to enroll or is already enrolled so long as the disclosure is for purposes related to the student's enrollment or transfer.
- i. Requests by federal and state authorities and authorized third parties designated by federal and state authorities to evaluate a federal or state supported education program; to researchers performing certain types of studies; in connection with statewide longitudinal data systems studies and tracking.
- j. In the case of emergencies, the University may release information to appropriate persons in connection with an emergency, if the knowledge of such information is necessary to protect the health or safety of a student or other persons.
- k. To the extent otherwise permitted by law, the results of a disciplinary proceeding or investigation conducted by the University to an alleged victim of a crime.

4. The right to file a complaint with the U.S. Department of Education concerning alleged failures by the University to comply with the requirements of FERPA. The name and address of the Office that administers FERPA is:

Family Policy Compliance Office  
U.S. Department of Education  
400 Maryland Avenue, SW  
Washington, DC 20202-5901

## Additional Resources

For more information on FERPA, please see the following links:

1. Family Policy Compliance Office (<http://www.ed.gov/policy/gen/guid/fpco/ferpa/>)
2. FERPA 20 USC 1232(g) ([http://frwebgate.access.gpo.gov/cgi-bin/getdoc.cgi?dbname=browse\\_usc&docid=Cite:+20USC1232g](http://frwebgate.access.gpo.gov/cgi-bin/getdoc.cgi?dbname=browse_usc&docid=Cite:+20USC1232g))
3. 34 CFR Part 99 (<https://www.gpo.gov/fdsys/pkg/CFR-2007-title34-vol1/content-detail.html>)
4. Montana Code Annotated ([http://leg.mt.gov/bills/mca\\_toc/20\\_25\\_5.htm](http://leg.mt.gov/bills/mca_toc/20_25_5.htm))

## Student Rights

### Public Safety Report and Alcohol and Drug Guidelines

The health and safety of students, faculty, staff, and visitors are of paramount concern to The University of Montana. Each year the University publishes an annual report outlining on-campus security and safety information and crime statistics. The report provides important information for security awareness and crime prevention programs, emergency procedures and reporting crimes, plus law enforcement and safety services on campus.

Additionally, the booklet contains the University's policy on sexual assault and information about support services for victims of sexual assault.

The booklet also includes information about the University's drug and alcohol policy, programs and support services for substance abuse, and risk management guidelines for University-related events.

The booklet is available by writing or calling the Office of Public Safety (406) 342-6131 or the Office of the Vice President for Student Affairs (406) 243-5225, The University of Montana, Missoula, MT 59812. The information can also be accessed on the University of Montana Student Affairs website (<http://www.umt.edu/vpesa/>) and the University of Montana Public Safety website (<http://www.umt.edu/police/>).

### Student Concerns and Complaint Procedures

Students with concerns about academic policies at UM should contact their college Dean's Office (<https://www.umt.edu/provost/about/academic-officers-and-office-staff/academic-officers/default.php>).

If the nature of the concern is something that affects academic performance:

- First, attempt to resolve the issue directly with the instructor of record.
- If resolution is not possible or the instructor of record is unresponsive to requests within a week please contact the Chair of the Department.
- If the Chair is unable to resolve the matter or is unresponsive to requests within a few days please contact the Dean of the College or School.
- If the Dean is unable to resolve the matter or is unresponsive to request please contact the Office of the Provost at (406) 243-4689.

If the instructor of record, the Chair, the Dean, and the Provost's Office have not addressed the matter to satisfaction, then please contact the ASUM Student Resolution Officer (<https://www.umt.edu/asum/agencies/legal/resolution/default.php>) at (406) 243-6213 or message them at [asumlegal@mso.umt.edu](mailto:asumlegal@mso.umt.edu).

The student grievance procedure requires that such grievances be brought to the Student Resolution Officer within 30 days of the act or omission that caused the grievance or after the date that the student knew or should have known of such an act or omission (see CBA (<https://www.umt.edu/provost/faculty/CBAs/default.php>) Section 21.500). It is very helpful to chronologically organize all documentation of interactions between the student and the faculty, staff, and administrators contacted. In addition, we recommend students write a chronological summary of their experiences in trying to resolve the academic issue.

### Resources

- Formal Grievance Procedure (<https://www.umt.edu/provost/faculty/CBAs/default.php>)— Student complaints against faculty—except in the School of Law (<https://www.umt.edu/law/students/default.php>)—follow the procedures in accordance with CBA, Section 21.000. Complaints against an instructor who is not a member of the bargaining units or held to the procedures described in either CBA follow the same procedure per Policy 350. (<https://www.umt.edu/legal-counsel/policies-procedures/350-nontnr-appts.php>)
- Student Conduct Code (<http://www.umt.edu/vpesa/Dean%20of%20Students/default.php>)—Covers expectations and campus procedures for general conduct and academic conduct.
- Click to view the Non-Discrimination Statement. ([https://www.umt.edu/provost/students/concerns/non-discrimination-statement\\_website.docx.pdf](https://www.umt.edu/provost/students/concerns/non-discrimination-statement_website.docx.pdf))

### Notification of Montana University System Complaint Process

In October 2010, the United States Department of Education released new regulations known as the "Program Integrity" rules, which are intended to address concerns relating to the integrity of academic programs offered by postsecondary educational institutions and authorized under Title IV of the Higher Education Act (HEA), as amended.

As part of those new rules, each state must have in place a process for receiving, reviewing, and responding to complaints concerning post-secondary educational institutions delivering educational services in that state, and each institution must inform students how to initiate complaints in the state where the student receives instruction. This notification provides information on the complaint process available to students of the Montana University System.

Pursuant to Mont. Code Ann. § 20-25-201 and Title 20, Chapter 15 Mont. Code Ann., the designated units of the Montana University System, and the duly organized community college districts in the State of Montana are legally authorized to provide postsecondary education in the State of Montana. Together, these fourteen entities form the group of public postsecondary educational institutions in the State of Montana, all of which are under the authority and control of the Board of Regents of the Montana University System. Those institutions are as follows:

- Montana State University – Bozeman
- Montana State University – Billings
- Montana State University – Northern
- Montana State University – Great Falls College
- University of Montana – Missoula
- University of Montana – Missoula College
- University of Montana – Helena College
- Montana Tech of the University of Montana
- The University of Montana – Western
- Dawson Community College
- Flathead Valley Community College
- Miles Community College

These institutions are accredited by the Northwest Commission on Colleges and Universities (<https://www.nwccu.org/>), 8060 165th Avenue NE, Suite 100, Redmond, Washington 98052, (425) 558-4224.

- View Evidence of each institution's accreditation (<https://www.nwccu.org/member-institutions/directory/>).

### How To File A Complaint:

Students and prospective students of the Montana University System are encouraged to initially address complaints through the applicable institution's complaint or review procedures. At the University of Montana, please refer to the following.

- For concerns about academic performance, contact the Office of the Provost ([officeoftheprovoat@umontana.edu](mailto:officeoftheprovoat@umontana.edu)) at (406) 243-4689.
- For safety concerns, contact the UM Police (<http://www.umt.edu/publicsafety/>) at (406) 243-6131.
- For concerns about campus life, contact the Office of Student Affairs (<http://www.umt.edu/student-affairs/>) at (406) 243-5225.
- For concerns about student conduct and general assistance, contact John Nugent ([john.nugent@umontana.edu](mailto:john.nugent@umontana.edu)) at (406) 243-2611.
- For concerns about discrimination or protected-class harassment, contact the Title IX Coordinator/Office of Conflict, Resolution,







course through the GrizPortal to avoid receiving a failing grade. Students who know they will be absent should contact the instructor in advance.

Students are expected to attend all class meetings and complete all assignments for courses in which they are enrolled. Instructors are encouraged to notify advisors or the appropriate administrators regarding students with excessive unexcused absences. Instructors may excuse brief and occasional absences for reasons of illness, injury, family emergency, religious observance, cultural or ceremonial events, or participation in a University sponsored activity. (University sponsored activities include for example, field trips, ASUM service, music or drama performances, and intercollegiate athletics.) Instructors shall excuse absences for reasons of military service or mandatory public service.

Cultural or ceremonial leave allows excused absences for cultural, religious, and ceremonial purposes to meet the student's customs and traditions or to participate in related activities. To receive an authorized absence for a cultural, religious or ceremonial event the student or their advisor (proxy) must submit a formal written request to the instructor. This must include a brief description (with inclusive dates) of the cultural event or ceremony and the importance of the student's attendance or participation. Authorization for the absence is subject to approval by the instructor. Appeals may be made to the Chair, Dean or Provost. The excused absence or leave may not exceed five academic calendar days (not including weekends or holidays). Students remain responsible for completion or make-up of assignments as defined in the syllabus, at the discretion of the instructor.

Instructors may establish absence policies to conform to the educational goals and requirements of their courses with due consideration of the class's diversity. Such policies should be set out in the course syllabus and should include the procedures for giving timely notice of absences, explain how work missed because of an excused absence may be made up, and stipulate any penalty to be assessed for excessive or unexcused absences.

The UM Faculty Senate encourages the faculty to accommodate students incurring an excused absence by allowing them to make up missed work when this can be done in a manner consistent with the educational goals of their courses. Students expecting to incur excused absences should consult with their instructors early in the term to be sure that they understand the absence policies for each of their courses.

## Declaring a Major, Minor, or Certificate and Changing a Major, Minor, or Certificate

Students indicate on the application for admission the major or majors in which they are interested. Students undecided as to a field of interest may elect to be Undeclared while making program and career decisions. Students must declare a major in a degree granting program prior to completion of 45 credits or after three semesters, whichever occurs first.

Students must complete a major in order to earn a degree or certificate.

Students may change their majors or minors and declare certificates by contacting the academic advisor of the respective major, minor, or certificate program they wish to declare and requesting that they communicate this change to the Office of the Registrar. It is strongly advised that students meet with an advisor before changing their major or minor or declaring a certificate.

Students who wish to transfer between Missoula College and the University of Montana-Missoula programs must instead submit an Intra-Campus File Transfer form (<https://www.umt.edu/registrar/PDF/intra%20Campus%20transfer%20form.pdf>). Students transferring from Missoula College to University of Montana-Missoula must be evaluated by Undergraduate Admissions to ensure minimum admission requirements are met.

Forms and information are available on the Registrar's Office forms page (<https://www.umt.edu/registrar/Forms.php>).

## Graduate School Policies

Academic policies specific to the Graduate School can be found in the Graduate School Policies (p. 440) section of this catalog.

## Degree and Certificate Requirements for Graduation

### Catalog Governing Graduation

- Students may graduate fulfilling University and departmental major requirements in any single University of Montana-Missoula catalog under which the student has been enrolled during the six years prior to graduation. For example, the 2019-20 catalog can be used to graduate through summer 2026.
- The student must meet major requirements under the same catalog under which the student is meeting University requirements (general education requirements, credit requirements, and credit-residency requirements).
- Minor requirements may be satisfied under a different catalog within the six-year period.
- University or departmental requirements may change to comply with accreditation requirements, professional certification, and licensing requirements, etc.
- Students transferring to the University of Montana-Missoula may choose to graduate fulfilling requirements under the UM catalog in effect when they were enrolled at their original institution, provided the chosen catalog is not more than six years old at the time of graduation. Eligible students who choose an earlier catalog must notify the Admissions Office at the time of admission so their transfer work can be evaluated accordingly.

## Applying for Certificate and Degree Candidacy

To become a candidate for an undergraduate degree or certificate, the student must file a formal application with the Office of the Registrar at the beginning of the semester preceding the semester in which the student expects to graduate. Deadline dates are specified on the Registrar's Office website (<https://www.umt.edu/registrar/graduation/default.php>).

## Credit Requirements and Limitations Certificates

See individual college or school catalog sections for certificate course and credit requirements. Course and credit requirements vary by program, but most certificates require the completion of at least 12 credits.

## Associates of Applied Science

To receive an Associate of Applied Science (A.A.S.) degree, a student must fulfill the following criteria:

- Complete a minimum of 60 credits, of which 51% must be from the University of Montana. Please note that courses numbered below 100 do not count toward the 60 credit requirement, but do fulfill financial aid credit load requirements.
- Possess a minimum grade average of 2.00 in all work attempted at the University of Montana-Missoula and a minimum grade of C- in all classes that count toward program requirements.
- Complete the specialized program degree requirements including the following related subject area of core collegiate-level courses:
  - **Communication:** the ability to formulate and adapt messages to a variety of audiences through written, verbal, and nonverbal processes.
  - **Computation:** the ability to complete basic algebraic manipulations and achieve mathematical literacy.
  - **Human Relations:** the ability to analyze social problems and structure, ethical norms of professions and society, human behavior, or human values systems.
  - **Computer Literacy:** the ability to utilize a modern computing system including web applications and an office productivity suite to research, develop and produce information in a 21st century society.
  - **Professional Competency:** To ensure all graduates the opportunity to apply specialized skills in a professional environment, it is recommended student complete a program-related internship, field experience, clinical experience, capstone project, or professional certification activity.

## Associates of Arts and Associates of Science

A total of 60 credits is required for graduation with the Associate of Arts (A.A.) or Associate of Science (A.S.) degrees. The minimum grade average for graduation is 2.00 in courses taken on the traditional letter grade (A-F) basis. To receive the Associate of Arts or Associate of Science degrees, the student must successfully complete all of the lower-division general education requirements for a baccalaureate degree with the exception of the language requirement.

## Baccalaureate Degrees

A minimum of 120 credits is required for graduation with a baccalaureate degree in most academic programs offered at the University of Montana. A greater number is required in some specific programs; students should consult the appropriate catalog section for their program of interest and discuss their plans with an academic advisor.

Students may elect to earn more than one degree or major at the baccalaureate level. Available options include a double major or a dual degree:

- A **double major** is awarded as one degree with one diploma that may list two or more majors. The graduating student with multiple majors must fulfill the curricular requirements for two or more majors as well as all other requirements for graduation. The two majors must be within a single classification of baccalaureate degree (e.g. Bachelor of Science, Bachelor of Arts, Bachelor of Fine Arts, etc.). Students may also fulfill requirements for two majors across degree classes. In such cases the student must declare a primary major that determines the type of degree awarded that will be printed on the student's diploma and transcript. The secondary major shall be annotated on

the student transcript as completed; however, a second degree is not awarded.

- **Dual degrees** (or multiple degrees) are awarded as separate degrees with two (or multiple) diplomas (e.g. Bachelor Science and a Bachelor of Arts). The student must fulfill all of the program requirements for each of the separate baccalaureate degrees and must comply with the credit residency requirements for degrees and certificates (p. 38) for each degree. Multiple degrees may be earned concurrently or at different times, but all dual degree graduates must complete a minimum of 150 credits by completing an additional 30 credits for each subsequent baccalaureate degree. However, note that academic residency requirements apply differently for University of Montana graduates versus non-graduates seeking dual or subsequent degrees, so the requirements may differ.

General education requirements need only be met once for either a double major or dual degree.

All majors, minors, degrees, and certificates earned from the University of Montana-Missoula shall be clearly and specifically listed on official transcripts under a single degree or as separate dual/multiple degrees, as appropriate.

### Credits Required for a Major

Students in a bachelor degree program must complete a minimum of 30 credits in their major. Most majors require more.

Students may elect to earn a single degree with more than one major. Students may complete a double major (two majors) or any number of majors. All requirements for the majors must be completed even though students will receive a single degree such as a Bachelor of Arts with majors in Psychology and Sociology. It is only necessary to complete the total credit requirement for a single bachelor degree.

Courses completed to satisfy the requirements of a major also may be applied toward the General Education Requirements if they appear on the list of approved courses at the time they are taken.

### Credit Limitations in a Major

A maximum of 60 credits in the student's major may be counted toward the baccalaureate degree, except some options in Integrative Physiology and Education, majors in Computer Science, Journalism, Law and majors in the College of Business, College of the Arts and Media, College of Health Professions and Biomedical Sciences, and the College of Forestry and Conservation are allowed more. Students with combined majors, as opposed to two majors, are allowed to apply 75 credits in the major.

### Major Concentrations

Groups of courses have been identified which lead to a specialization within one major or between two or more majors. These specializations are called concentrations. The names of approved concentrations will be recorded on the permanent records of those students who have satisfactorily completed the requirements as given in the catalog governing their graduation. A student desiring a particular concentration must satisfy the requirements of the major offering it. If one concentration is offered within two or more majors, the student must satisfy the requirements of only one.

Only courses listed within the supporting major count toward the 60 credit limitation in the major. Courses in other fields do not count toward the maximum of 60 credits in the major even though they may be required or elected for the concentration.

If one major has two or more concentrations, a student may satisfy the requirements for more than one concentration so long as the maximum credit limitations are observed.

### Minor Requirements

Baccalaureate students may elect to complete one or more minors in fields outside their majors. Minors may be in fields unrelated to students' majors or they may be complementary or supportive of majors. A student may not take a minor in the same field of study as their major.

A student will not be required to satisfy the requirements of a minor in order to graduate unless that minor is required by the student's major department or school.

Courses completed to satisfy the requirements of a minor also may be applied toward the General Education Requirement if they appear on the list of approved courses at the time they are taken.

### Credits Required for a Minor

To complete a minor, students must earn at least 18 credits in an approved minor listed in this catalog and complete a baccalaureate degree.

Students possessing a baccalaureate degree from an accredited college or university may earn a minor if they have been accepted by the University as an undergraduate degree-seeking student and are earning an additional baccalaureate degree at the University of Montana-Missoula. In addition to meeting minor requirements, students must earn from the University of Montana-Missoula a minimum of 9 credits in the minor field and 15 credits overall.

### Upper-Division Credit Requirement

All students must complete a minimum of 39 credits in courses numbered 300 and above to meet graduation requirements for the first baccalaureate degree. At most, 19 of these 39 upper-division credits can be upper-division credits transferred from other four-year institutions.

Lower-division transfer courses accepted as substitutions for upper-division courses required for a particular major do not count toward the 39 upper-division credit requirement.

### Credit Residency Requirements for Degrees and Certificates

University of Montana credit is defined as credit earned in any course that has been approved to be listed in the University of Montana-Missoula catalog and has been approved for offering by the Department Chair and Dean of the school or college in which the course is taught. University of Montana-Missoula credit may be offered at any University of Montana campus location.

### Credit Residency Requirements for Certificates, Associates of Applied Science, and Associate of Science in Nursing Degrees

A minimum of 51% of the required number of credits must be earned from the University of Montana-Missoula.

### Credit Residency Requirements for the Associate of Arts and Associate of Science Degrees

A minimum of 30 credits of the required 60 credits must be earned from the University of Montana-Missoula.

### Credit Residency Requirements for the First Baccalaureate Degree

A first baccalaureate degree is defined as any baccalaureate degree earned by a student who has not previously earned a baccalaureate degree from the University of Montana-Missoula. The

requirements listed below also apply to any student who previously earned a baccalaureate degree at another institution and now is seeking a baccalaureate degree from the University of Montana-Missoula.

- A minimum of 30 credits of the required 120 (or more) credits must be earned from the University of Montana-Missoula.
- A minimum of 20 upper-division credits of the required 39 upper-division credits must be earned from the University of Montana-Missoula. Students attending elsewhere on a university-approved exchange may be exempt from this requirement with the prior written approval of their major department Chair or Dean.

### Credit Residency Requirements for Second and Subsequent Baccalaureate Degrees

In regard to residency requirements, a second baccalaureate degree is defined as any baccalaureate degree earned by a student who had previously earned a baccalaureate degree from the University of Montana-Missoula; they have met first degree residency requirements and need only do so once. Students seeking a second baccalaureate degree or dual degree from the University of Montana must complete all academic requirements for each degree (first and subsequent) and earn a minimum of 150 credits by completing an additional 30 credits for each subsequent baccalaureate degree. For students who have met first degree residency requirements, a minimum of 20 credits of the required additional 30 credits must be earned from the University of Montana-Missoula.

Students attending the University of Montana who are not University of Montana graduates, but already have a baccalaureate degree from another institution must meet University of Montana residency Requirements for the first baccalaureate degree (see above) for the subsequent degree that they are now seeking.

### Exception Regarding Experiential-Based Learning Credits

A maximum of 1/3 of the credits used to satisfy credit residency requirements for degrees and certificates can be earned through experiential-based learning credits. No experiential-based learning credits may be applied to upper-division credit residency requirements for the first baccalaureate degree. See Faculty Senate Procedure 203.30 (Credit for Prior Learning (CPL) Guidelines) for definitions and additional details.

### Credit Maximums

The amount of credit which may be counted toward the minimum credit requirements for the baccalaureate (B.A., B.S., B.F.A., etc.), Associate of Science (A.S.), and Associate of Arts (A.A.) degrees is limited in certain areas as follows:

| Category                                                                                                                                                                | For Bachelor Degree | For AA or AS Degree |
|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------|---------------------|---------------------|
| Career skills                                                                                                                                                           | 0                   | 0                   |
| Study skills courses<br>(e.g. AASC 101, C&I 160)                                                                                                                        | 2                   | 2                   |
| Activity/skills courses<br>(including physical education and esports,<br>e.g. DANC 325,<br>ACT 101-ACT 287,<br>ACTV, MSL 106 and<br>MSL 203, MART 100,<br>and MART 189) | 4                   | 4                   |

|                                                                                              |    |    |
|----------------------------------------------------------------------------------------------|----|----|
| Military Science Leadership Courses (contracted students may present 24 credits)             | 12 | 12 |
| Music performance (MUSI 102A, MUSI 123A, MUSI 135A, MUSI 136A, MUSI 235, MUSI 236, MUSI 218) | 6  | 6  |
| Ensemble music (MUSI 112A, MUSI 114A, MUSI 110A, MUSI 131A and MUSI 122A)                    | 8  | 8  |
| Credit/No Credit courses                                                                     | 18 | 18 |
| Internship credits in courses numbered 198/298/398/498                                       | 6  | 6  |

Credits attempted in these areas which are beyond the maximum applicable will remain on the student's permanent record, but cannot be used toward graduation.

## Minimum Grade Requirement

Courses taken to satisfy general education requirements, the requirements of a major or a minor, or the requirements for a certificate must be taken in the traditional (A-F) grade mode when available and completed with a grade of C- or better (or CR in cases where credit/no credit is the only available grade mode). Some programs may require higher grades for some or all required courses. Specific information regarding individual program requirements can be found in individual program entries (p. 563).

## Grade Point Average Requirement

A minimum grade point average of 2.00 in all work attempted at the University of Montana-Missoula is required for graduation.

## Graduation with Honors

Graduates may be awarded honors with their certificates, associates, and baccalaureate degrees based on their cumulative University of Montana-Missoula (UM) institutional grade point average (GPA).

Consistent with Board of Regents policy, the UM institutional GPA shall be computed by dividing the sum of grade points earned by the total credits carried, except that neither the credits nor the grade points shall be counted for:

- Non-credit, remedial, developmental, or other sub college-level courses as represented below the 100-level;
- Courses taken on a credit/no credit basis (pass/fail, etc.), or
- Transferred coursework.

To be eligible for graduation with honors, at least 50% of the credits required for the certificate or degree must be credits eligible to count towards the student's UM GPA.

### Graduation cum laude ( *with honors*), magna cum laude ( *high honors*) or summa cum laude ( *highest honors*):

Each semester the registrar shall distribute a list of graduation candidates with a UM GPA that meets or exceeds 3.40. Faculty Senate shall award honors as:

1. Cum laude (*Honors*): All undergraduate students shall graduate *cum laude (with honors)* when their cumulative UM GPA meets or exceeds 3.40.
2. Magna cum laude (*High Honors*): Departments and programs may stipulate additional requirements and then recommend students for graduation magna cum laude (*high honors*) when the cumulative UM GPA meets or exceeds 3.70.
3. Summa cum laude (*Highest Honors*): Departments and programs may stipulate additional requirements and then recommend students for graduation summa cum laude (*with highest honors*) when their UM GPA meets or exceeds 3.90.

## General Education Requirements

### Preamble

The University of Montana-Missoula's General Education Program provides a broad academic base that supports both undergraduate learning at the University of Montana-Missoula and continued learning following graduation. While the General Education Program offers students considerable flexibility in selecting courses, it has a set of common educational objectives for all students.

In accordance with the mission of the University of Montana-Missoula, these objectives are to develop competent and humane individuals who are informed, ethical, literate, and engaged citizens of local and global communities. Students should become acquainted with issues facing contemporary society, participate in the creative arts, develop an understanding of science and technology, cultivate an appreciation of the humanities, and examine the history of different American and global cultures. Upon completion of the general education requirements students should be able to articulate ideas orally and in writing, understand and critically evaluate tangible and abstract concepts, and employ mathematical and other related skills appropriate to a technologically focused society.

In summary, the General Education Program is designed to provide a high quality intellectual foundation that accommodates all UM students whether in liberal arts or professional programs. This foundation will be reinforced, expanded, and refined as students continue through their course of study. Students are encouraged to prepare for productive roles in their chosen fields by cultivating civic awareness vital to the greater community and a democratic society. The acquired skills will allow students to examine critically the human experience and achieve genuine confidence in their knowledge and abilities. For the General Education Program to accomplish its goals, students must assume primary responsibility for their growth and education.

### Overview

To earn a baccalaureate degree, all students must complete successfully, in addition to any other requirements, the following General Education Requirements (GERs).

All General Education courses must be at least 3 credits, must be introductory and foundational, and have no more than one pre-requisite. The General Education Committee may allow exceptions for upper-



division courses, courses fewer than three credits, and for courses with more than one prerequisite if the proposing unit can justify such an exception.

Some courses may satisfy both the Writing Across the Curriculum requirement (1.2) and one of the Groups IV through XI. Some courses may satisfy both Group IX and one of the Groups IV through VIII. Some courses may satisfy both Group X and one of the Groups IV through VIII.

Many of the general education courses listed below require prerequisites be met before registration. Prerequisites are listed in individual course descriptions (p. 575).

**NOTE: All courses taken to satisfy General Education Requirements must be taken for a traditional letter grade and must be passed with a grade of C- or better.**

Students are cautioned that approved courses may change from year to year. To be used for General Education credit, a course must be listed as approved in the academic catalog for the academic year during which the course was taken.

| Group Letter and Description                                                                  | Credits |
|-----------------------------------------------------------------------------------------------|---------|
| Group I: English Writing Skills                                                               |         |
| 1. Introductory Writing (WRIT 101 3 or 201)                                                   |         |
| 2. Writing Across the Curriculum                                                              | 3       |
| 3. Writing in the Disciplines (as specified by major department)                              | 3       |
| Group II: Mathematics                                                                         | 3       |
| Group III: Modern and Classical Languages                                                     | 0-11    |
| Group IV: Expressive Arts                                                                     | 3       |
| Group V: Literary and Artistic Studies                                                        | 3       |
| Group VI: Historical Studies                                                                  | 3       |
| Group VII: Social Sciences                                                                    | 3       |
| Group VIII: Ethics and Human Values                                                           | 3       |
| Group IX: Democracy and Citizenship                                                           | 3       |
| Group X: Cultural & International Diversity                                                   | 3       |
| Group XI: Natural Sciences - One Natural Science course must include a laboratory experience. | 6       |

<sup>1</sup> Some courses satisfy more than one group. See the list in the next section.

## Courses that Satisfy More than One Group

The following courses satisfy more than one general education group.

| Title                                       | General Education Groups                             |
|---------------------------------------------|------------------------------------------------------|
| AAST 141H Black: From Africa to Hip-Hop     | Historical Studies, Cultural International Diversity |
| ANTY 101H Anthropology the Human Experience | Historical Studies, Cultural International Diversity |

|                                                   |                                                                 |
|---------------------------------------------------|-----------------------------------------------------------------|
| ANTY 102H Intro to South S. East Asia             | Historical Studies, Cultural International Diversity            |
| ANTY 103H Intro Latin American Studies            | Historical Studies, Cultural International Diversity            |
| ANTY 122S Race and Minorities                     | Social Sciences, Democracy and Citizenship                      |
| ANTY 141H The Silk Road                           | Historical Studies, Cultural International Diversity            |
| ANTY 213N Biological Anthropology Lab             | Natural Science Lab Course, Natural Science                     |
| ANTY 220S Culture Society                         | Social Sciences, Cultural International Diversity               |
| ANTY 241H Central Asian Culture and Civilization  | Historical Studies, Cultural International Diversity            |
| ANTY 254X Archaeological Wonders of the World     | Writing Across the Curriculum, Cultural International Diversity |
| ANTY 351H Archaeology of North America            | Historical Studies, Cultural International Diversity            |
| ARTH 150H Introduction to Art History             | Historical Studies, Cultural International Diversity            |
| ARTH 250L Introduction to Art Criticism           | Literary Artistic Studies, Writing Across the Curriculum        |
| ASTR 134N Planetary Astronomy Lab                 | Natural Science Lab Course, Natural Science                     |
| ASTR 135N Stars, Galaxies, and the Universe Lab   | Natural Science Lab Course, Natural Science                     |
| ASTR 142N The Evolving Universe                   | Natural Science Lab Course, Natural Science                     |
| BIOB 101N Discover Biology                        | Natural Science Lab Course, Natural Science                     |
| BIOB 109N Montana Ecosystems                      | Natural Science Lab Course, Natural Science                     |
| BIOB 161N Principles of Living Systems Lab        | Natural Science Lab Course, Natural Science                     |
| BIOB 171N Principles of Biological Diversity Lab  | Natural Science Lab Course, Natural Science                     |
| BIOB 210N Communicating Biology                   | Natural Science, Writing Across the Curriculum                  |
| BIOB 226N General Science: Chemical Life Sciences | Natural Science Lab Course, Natural Science                     |
| BIOH 105N Basic Human Biology Laboratory          | Natural Science Lab Course, Natural Science                     |
| BIOH 201N Human Anatomy Physiology I              | Natural Science Lab Course, Natural Science                     |
| BIOH 202N Human Anatomy and Physiology I Lab      | Natural Science Lab Course, Natural Science                     |
| BIOH 211N Human Anatomy and Physiology II         | Natural Science Lab Course, Natural Science                     |
| BIOH 212N Human Anatomy and Physiology II Lab     | Natural Science Lab Course, Natural Science                     |
| BIOO 105N Introduction to Botany                  | Natural Science Lab Course, Natural Science                     |
| CHMY 142N College Chemistry I Lab                 | Natural Science Lab Course, Natural Science                     |
| CHMY 144N College Chemistry II Lab                | Natural Science Lab Course, Natural Science                     |



|                                                                                          |                                                             |                                                           |                                                                                            |
|------------------------------------------------------------------------------------------|-------------------------------------------------------------|-----------------------------------------------------------|--------------------------------------------------------------------------------------------|
| CLAS 180H Environment Nature in Classical World                                          | Historical Studies, Writing Across the Curriculum           | HSTR 101H Western Civilization I                          | Historical Studies, Democracy and Citizenship                                              |
| CLAS 251L The Epic                                                                       | Literary Artistic Studies, Writing Across the Curriculum    | HSTR 102H Western Civilization II                         | Historical Studies, Democracy and Citizenship                                              |
| CLAS 252L Greek Drama: Politics on Stage                                                 | Literary Artistic Studies, Writing Across the Curriculum    | HSTR 103H Honors Western Civilization I                   | Historical Studies, Democracy and Citizenship                                              |
| COMX 140L Introduction to Visual Rhetoric                                                | Literary Artistic Studies, Democracy and Citizenship        | HSTR 104H Honors Western Civilization II                  | Historical Studies, Democracy and Citizenship                                              |
| CSCI 215E Social Ethical Issues in CS                                                    | Ethical Human Values, Writing Across the Curriculum         | HSTR 210E History of the Bible                            | Ethical Human Values, Literary Artistic Studies                                            |
| CSCI 315E Computers, Ethics, and Society                                                 | Ethical Human Values, Writing in the Disciplines            | HSTR 211L Early Christianity                              | Ethical Human Values, Literary Artistic Studies                                            |
| DANC 360L World Dance                                                                    | Literary Artistic Studies, Cultural International Diversity | HSTR 230H Colonial Latin America                          | Historical Studies, Cultural International Diversity                                       |
| ENST 225S Sustainable Communities                                                        | Social Sciences, Democracy and Citizenship                  | HSTR 231H Modern Latin America                            | Historical Studies, Cultural International Diversity                                       |
| ENST 231H Nature and Society                                                             | Historical Studies, Writing Across the Curriculum           | HSTR 240H East Asian Civilizations                        | Historical Studies, Cultural International Diversity                                       |
| ENST 335L Literature of the Earth                                                        | Literary Artistic Studies, Writing in the Disciplines       | JPNS 150H Japanese Culture Civilization                   | Historical Studies, Cultural International Diversity                                       |
| ERTH 103N Earth Systems Science Lab                                                      | Natural Science Lab Course, Natural Science                 | JPNS 312L Japanese Literature: Medieval to Modern         | Literary Artistic Studies, Writing in the Disciplines                                      |
| FORS 241N Dendrology                                                                     | Natural Science Lab Course, Natural Science                 | JRNL 100H Journalism and American Society                 | Historical Studies, Democracy and Citizenship                                              |
| GEO 102N Introduction to Physical Geology Lab                                            | Natural Science Lab Course, Natural Science                 | KIN 106 Foundations of Exercise Science Lab               | Natural Science Lab Course, Natural Science                                                |
| GEO 224N General Science: Physics Geoscience                                             | Natural Science Lab Course, Natural Science                 | LING 375X Linguistic Ecology and Language Endangerment    | Writing Across the Curriculum, Cultural International Diversity                            |
| GH 151L Introduction to Western Humanities: Antiquity                                    | Literary Artistic Studies, Writing Across the Curriculum    | LIT 110L Introduction to Literature                       | Literary Artistic Studies, Writing Across the Curriculum                                   |
| GPHY 112N Intro to Physical Geography Laboratory: Climate, Landforms, and Vegetation Lab | Natural Science Lab Course, Natural Science                 | LIT 120L Poetry                                           | Literary Artistic Studies, Writing Across the Curriculum                                   |
| GPHY 121S Human Geography                                                                | Social Sciences, Cultural International Diversity           | LIT 236L Literary Histories                               | Literary Artistic Studies, Writing Across the Curriculum                                   |
| GPHY 141S Geography of World Regions                                                     | Social Sciences, Cultural International Diversity           | LIT 246L Genres, Themes, Approaches                       | Literary Artistic Studies, Writing Across the Curriculum                                   |
| GRMN 351H German Culture: Beginnings to Romanticism                                      | Historical Studies, Writing in the Disciplines              | LIT 314L The American Novel                               | Literary Artistic Studies, Writing in the Disciplines                                      |
| GRMN 352H Germ Culture: Romanticism to the Present                                       | Historical Studies, Writing in the Disciplines              | LIT 327L Shakespeare                                      | Literary Artistic Studies, Writing in the Disciplines                                      |
| HONR 121L Ways of Knowing                                                                | Literary Artistic Studies, Writing Across the Curriculum    | LIT 353L Milton                                           | Literary Artistic Studies, Writing in the Disciplines                                      |
| HONR 122E Ways of Knowing II                                                             | Ethical Human Values, Democracy and Citizenship             | MUSI 132L History of Rock Roll                            | Historical Studies, Literary Artistic Studies                                              |
| HSTA 101H American History I                                                             | Historical Studies, Democracy and Citizenship               | MUSI 301H Music History I                                 | Historical Studies, Democracy and Citizenship                                              |
| HSTA 102H American History II                                                            | Historical Studies, Democracy and Citizenship               | MUSI 302H Music History II                                | Historical Studies, Writing Across the Curriculum, Democracy and Citizenship               |
| HSTA 103H Honors American History I                                                      | Historical Studies, Democracy and Citizenship               | NASX 105H Introduction to Native American Studies         | Historical Studies, Cultural International Diversity                                       |
| HSTA 104H Honors American History II                                                     | Historical Studies, Democracy and Citizenship               | NASX 235X Oral and Written Traditions of Native Americans | Literary Artistic Studies, Writing Across the Curriculum, Cultural International Diversity |
| HSTA 150H The Veteran's Experience                                                       | Historical Studies, Democracy and Citizenship               | NASX 304E Native American Beliefs and Philosophy          | Ethical Human Values, Cultural International Diversity                                     |
| HSTA 201E History of American Democracy                                                  | Ethical Human Values, Democracy and Citizenship             |                                                           |                                                                                            |

|                                                                     |                                                                                   |
|---------------------------------------------------------------------|-----------------------------------------------------------------------------------|
| NRSM 212N Ecology, Physics and Taxonomy of Soils                    | Natural Science Lab Course, Natural Science                                       |
| PHL 114E Intro to Political Ethics                                  | Ethical Human Values, Democracy and Citizenship                                   |
| PHL 210E Moral Philosophy                                           | Ethical Human Values, Writing Across the Curriculum                               |
| PHL 241N Hist Philosophy of Science                                 | Historical Studies, Natural Science                                               |
| PHL 317E Law and Morality                                           | Ethical Human Values, Democracy and Citizenship                                   |
| PHL 319E Law and Discrimination                                     | Ethical Human Values, Cultural International Diversity, Democracy and Citizenship |
| PHSX 206N College Physics I Laboratory                              | Natural Science Lab Course, Natural Science                                       |
| PHSX 208N College Physics II Laboratory                             | Natural Science Lab Course, Natural Science                                       |
| PHSX 216N Physics Laboratory I with Calculus                        | Natural Science Lab Course, Natural Science                                       |
| PHSX 218N Physics Laboratory II with Calculus                       | Natural Science Lab Course, Natural Science                                       |
| PSCI 210S Intro to American Government                              | Social Sciences, Democracy and Citizenship                                        |
| PSCI 220S Intro to Comparative Government                           | Social Sciences, Democracy and Citizenship                                        |
| PUBH 475E Public Health Ethics                                      | Ethical Human Values, Writing in the Disciplines                                  |
| RUSS 105Y Intro to Russian Culture                                  | Cultural International Diversity, Democracy and Citizenship                       |
| SOCI 220S Race, Gender Class                                        | Social Sciences, Democracy and Citizenship                                        |
| SSEA 202X Introduction to India                                     | Historical Studies, Cultural International Diversity                              |
| THTR 330H Theatre History I                                         | Historical Studies, Writing Across the Curriculum                                 |
| WGSS 263S Social and Political Perspectives on Gender and Sexuality | Social Sciences, Writing Across the Curriculum                                    |
| WRIT 201 College Writing II                                         | Writing Across the Curriculum, Introductory Writing                               |

## Group I: English Writing Skills

Students must satisfy the following three requirements:

1. Introductory College Writing
2. Writing Across the Curriculum
3. Writing in the Disciplines

### Introductory College Writing

Students must complete WRIT 101, WRIT 201, or an equivalent composition course with a grade of C- or better. Students with Language and Composition AP scores of 4 or better are exempted from this requirement.

Entering students who are placed into WRIT 095, based on their standardized test scores, must successfully complete WRIT 095 prior to enrolling in WRIT 101 or WRIT 201 or enroll in a section of WRIT 101 with co-requisite support. Students may challenge their placement

with specific scores from the University Writing Assessment. Entering students who place into WRIT 201 may choose to take WRIT 101 instead.

## Writing Across the Curriculum and Writing in the Disciplines

To fulfill the General Education requirements for college writing students must pass one Writing Across the Curriculum course with a grade of C- or better and also one Writing in the Disciplines course with a grade of C- or better (in this order, if possible).

Upon completing the Writing Across the Curriculum course, students should be able to demonstrate the following learning outcomes:

- Use writing to learn and synthesize new concepts.
- Formulate and express written opinions and ideas that are developed, logical, and organized.
- Compose written documents that are appropriate for a given audience, purpose, and context.
- Revise written work based on comments from the instructor.
- Find, evaluate, and use information effectively and ethically.

Students may not use the same writing course to meet both the Writing Across the Curriculum and the Writing in the Disciplines requirements. The courses satisfying the Writing in the Disciplines requirement differ according to the student's major.

Upon completing the Writing in the Disciplines requirement, students should be able to demonstrate the following learning outcomes:

- Identify and pursue sophisticated questions for academic inquiry.
- Find, evaluate, analyze, and synthesize information effectively from diverse sources.
- Manage multiple perspectives as appropriate.
- Recognize the purposes and needs of discipline-specific audiences and adopt the academic voice necessary for the chosen discipline.
- Use multiple drafts, revision, and editing in conducting inquiry and preparing written work.
- Follow the conventions of citation, documentation, and formal presentation that are appropriate to the discipline.
- Develop competence in information technology and digital literacy.

Students should examine the course catalog for the specific courses that fulfill the writing requirements and consult with their advisor. The courses satisfying either the Writing Across the Curriculum or the Writing in the Disciplines requirements are listed in separate tables below.

## Writing Across the Curriculum Courses

The following courses are designated as Writing Across the Curriculum courses for this catalog year. Students are cautioned that courses may change from year to year. To be used to fulfill the General Education Requirement, a course must be listed as a Writing Across the Curriculum course in the catalog and in the class schedule for the semester a student registers for it.

| Code      | Title                                   | Hours |
|-----------|-----------------------------------------|-------|
| ANTY 254X | Archaeological Wonders of the World     | 3     |
| ANTY 310  | Human Variation                         | 3     |
| ARTH 250L | Introduction to Art Criticism           | 3     |
| BIOB 210N | Communicating Biology                   | 3     |
| CLAS 180H | Environment & Nature in Classical World | 3     |

|           |                                                              |   |
|-----------|--------------------------------------------------------------|---|
| CLAS 251L | The Epic                                                     | 3 |
| CLAS 252L | Greek Drama: Politics on Stage                               | 3 |
| CSCI 215E | Social & Ethical Issues in CS                                | 3 |
| CSD 301   | Foundations of Scientific Writing                            | 3 |
| ENST 201  | Environmental Info Resources                                 | 3 |
| ENST 231H | Nature and Society                                           | 3 |
| FILM 320  | Shakespeare and Film                                         | 3 |
| GH 151L   | Introduction to Western Humanities: Antiquity                | 3 |
| GH 152    | Introduction to the Humanities Medieval to Modern            | 3 |
| HONR 121L | Ways of Knowing                                              | 3 |
| HSTA 315  | Early American Republic                                      | 3 |
| HSTA 326  | Digital Worlds of Early America                              | 3 |
| HSTA 347  | Voodoo, Muslim, Church: Black Religion                       | 3 |
| HSTA 373  | The History of American Thought to 1865                      | 3 |
| HSTA 385  | Families & Children in America                               | 3 |
| HSTR 300  | Writing For History                                          | 3 |
| HSTR 334  | Latin America: Reform & Revolution                           | 3 |
| HSTR 401  | The Great Historians                                         | 3 |
| IRSH 380  | Topics in Irish Studies                                      | 3 |
| IRSH 381  | Contemporary Irish Women's Writing                           | 3 |
| IRSH 382  | Rockin' Rebels: Popular Irish Music from Traditional to Punk | 3 |
| JRNL 270  | Reporting the News                                           | 3 |
| LING 375X | Linguistic Ecology and Language Endangerment                 | 3 |
| LIT 110L  | Introduction to Literature                                   | 3 |
| LIT 120L  | Poetry                                                       | 3 |
| LIT 236L  | Literary Histories                                           | 3 |
| LIT 246L  | Genres, Themes, Approaches                                   | 3 |
| MART 300  | Visions of Film                                              | 3 |
| MUSI 302H | Music History II                                             | 3 |
| NASX 235X | Oral and Written Traditions of Native Americans              | 3 |
| NASX 280  | Native American Studies Research Theories and Methods        | 3 |
| PHL 210E  | Moral Philosophy                                             | 3 |
| SOCI 306  | Sociology of Work                                            | 3 |
| THTR 330H | Theatre History I                                            | 3 |
| WGSS 263S | Social and Political Perspectives on Gender and Sexuality    | 3 |
| WRIT 121  | Introduction to Technical Writing                            | 3 |
| WRIT 201  | College Writing II                                           | 3 |
| WRIT 203  | Beyond the Bar: Rhetorics of Pub/Public Culture              | 3 |
| WRIT 206  | Mouse Rhetorics: Writing and Reading Disney                  | 3 |
| WRIT 325  | Science Writing                                              | 3 |

## Writing in the Disciplines Courses

The following courses are designated as Writing in the Disciplines courses for this catalog year. Students should consult with their advisor regarding the requirement specified by their major.

| Code      | Title                                                   | Hours |
|-----------|---------------------------------------------------------|-------|
| ANTY 430  | Social Anthropology                                     | 3     |
| ANTY 431  | Ethnographic Field Methods                              | 3     |
| ANTY 450  | Archaeological Theory                                   | 3     |
| ANTY 455  | Artifact Analysis                                       | 3     |
| ARTH 350  | Contemporary Art and Art Criticism                      | 3     |
| BGEN 499  | Strategic Management                                    | 3     |
| BIOH 462  | Principles of Medical Physiology                        | 3     |
| BIOM 420  | Host-Microbe Interactions                               | 3     |
| BMIS 474  | Cybersecurity Operation Center                          | 3     |
| CLAS 399  | Capstone                                                | 3     |
| COMX 347  | Rhetoric, Nature, and Environmentalism                  | 3     |
| COMX 414  | Communication in Personal Relationships                 | 3     |
| COMX 421  | Communication in Nonprofit Organizations                | 3     |
| COMX 422  | Communication and Technology                            | 3     |
| COMX 445  | Rhetorical Criticism and Theory                         | 3     |
| COMX 486  | Health and Family Communication                         | 3     |
| CSCI 315E | Computers, Ethics, and Society                          | 3     |
| CSCI 499  | Senior Thesis/Capstone                                  | 1-6   |
| CSD 430   | Senior Capstone                                         | 3     |
| DANC 494  | Professional Development Dance Seminar                  | 3     |
| ECNS 481  | Communicating Economics                                 | 3     |
| ECNS 499  | Senior Thesis/Capstone                                  | 2     |
| EDU 339   | Teaching Assessment in PK-8 Language Arts               | 3     |
| ENST 335L | Literature of the Earth                                 | 3     |
| ENST 367  | Environmental Politics & Policies                       | 3     |
| ENST 382  | Environmental Law                                       | 3     |
| ENST 487  | Globalization, Justice & Environment                    | 3     |
| ERTH 406  | Global Water Crises                                     | 3     |
| GEO 499   | Senior Thesis/Capstone                                  | 3-10  |
| GPHY 335  | Water and Sustainability                                | 3     |
| GPHY 433  | Community Resilience                                    | 3     |
| GPHY 499  | Senior Thesis                                           | 3     |
| GRMN 351H | German Culture: Beginnings to Romanticism               | 3     |
| GRMN 352H | Germ Culture: Romanticism to the Present                | 3     |
| HEE 301   | Methods of Secondary Health Education                   | 3     |
| HSTA 405  | Public Problems & United States Democracy               | 3     |
| HSTA 415  | The Black Radical Tradition                             | 3     |
| HSTA 417  | Prayer & Civil Rights                                   | 3     |
| HSTA 427  | Freedom, Slavery, Equality: Early American Perspectives | 3     |
| HSTA 461  | Research in Montana History                             | 3     |
| HSTA 463  | Research in 19th-20th Century Native American History   | 3     |
| HSTA 471  | Writing Women's Lives                                   | 3     |
| HSTR 400  | Historical Research Seminar                             | 3     |
| HSTR 437  | US-Latin America Relations                              | 3     |
| JPNS 312L | Japanese Literature: Medieval to Modern                 | 3     |
| JRNL 340  | Intermediate Audio                                      | 3     |

|           |                                                  |      |
|-----------|--------------------------------------------------|------|
| JRNL 352  | Intermediate Video Reporting and Producing       | 3    |
| JRNL 362  | Feature Writing                                  | 3    |
| JRNL 370  | Beat Reporting                                   | 3    |
| KIN 447   | Professional Writing in Integrative Physiology   | 3    |
| LING 473  | Language and Culture                             | 3    |
| LING 484  | North American Indigenous Language & Linguistics | 3    |
| LIT 300   | Literary Criticism                               | 3    |
| LIT 304   | U.S. Writers of Color                            | 3    |
| LIT 314L  | The American Novel                               | 3    |
| LIT 327L  | Shakespeare                                      | 3    |
| LIT 343   | African American Literature                      | 3    |
| LIT 353L  | Milton                                           | 3    |
| LIT 376   | Literature & Other Disciplines                   | 3    |
| LIT 494   | Seminar: Literature Capstone                     | 3    |
| M 429     | History of Mathematics                           | 3    |
| M 499     | Senior Thesis                                    | 1-12 |
| MART 450  | Topics in Film & Media Studies                   | 3    |
| MUSI 415  | Music 20th Century to Present                    | 3    |
| MUSI 416  | Topics in Music History                          | 3    |
| MUSI 417  | Cultural Studies in Music                        | 3    |
| NASX 494  | Seminar                                          | 3    |
| NEUR 458  | Neuroscience Research Techniques Lab             | 4    |
| NRSM 465  | Restoration Ecology                              | 3    |
| PHAR 350  | Introduction to Drug Information                 | 1    |
| PHAR 550  | Drug Literature Evaluation                       | 2    |
| PHL 400   | Advanced Writing in Philosophy                   | 1    |
| PHSX 330  | Communicating Physics                            | 3    |
| PSCI 400  | Advanced Writing in Political Science            | 1    |
| PSYX 320  | Advanced Psychological Research Methods          | 3    |
| PSYX 400  | History & System in Psychology                   | 3    |
| PTRM 451  | Tourism & Sustainability                         | 3    |
| PTRM 482  | Wilderness & Protected Area Management           | 3    |
| PUBH 475E | Public Health Ethics                             | 3    |
| RUSS 494  | Seminar in Russian Studies                       | 1-3  |
| S W 300   | Human Behavior & Social Environment              | 3    |
| SOCI 380  | Sociology of Health & Medicine                   | 3    |
| SOCI 425  | Victims and Society                              | 3    |
| SOCI 469  | Homicide                                         | 3    |
| SPNS 315  | Topics in Hispanic Culture                       | 3    |
| THTR 331  | Theatre History II                               | 3    |
| WGSS 363  | Feminist and Queer Theories and Methods          | 3    |

## Group II: Mathematics

Mathematical literacy implies an appreciation of the beauty of mathematics, an ability to apply mathematical reasoning, and an understanding of how mathematics and statistics are used in many arenas. Mathematical literacy may be attained through the study of the properties of numbers, mathematical modeling, geometry, data analysis

and probability, with the overarching goal of learning mathematical reasoning and problem solving.

Mathematical literacy cannot be achieved in a single course. However, for the purposes of general education, the mathematical literacy requirement can be met by any one of the following:

1. achieving a grade of C- or better in one of the following courses which address different aspects of mathematical literacy:

| Code     | Title                                                 | Hours |
|----------|-------------------------------------------------------|-------|
| M 104    |                                                       |       |
| M 105    | Contemporary Mathematics                              | 3     |
| M 115    | Probability and Linear Mathematics                    | 3     |
| M 118    | Mathematics for Music Enthusiasts                     | 3     |
| M 121    | College Algebra                                       | 3     |
| M 122    | College Trigonometry                                  | 3     |
| M 132    | Numbers and Operations for Elementary School Teachers | 3     |
| M 151    | Precalculus                                           | 4     |
| M 162    | Applied Calculus                                      | 4     |
| M 171    | Calculus I                                            | 4     |
| M 181    |                                                       | 4     |
| STAT 216 | Introduction to Statistics                            | 4     |

or a mathematics course of 3 or more credits for which one of these is a prerequisite.

2. Achieving a score of 50 or better on the CLEP College Algebra Test, the CLEP College Precalculus Test, or the CLEP College Mathematics Test.
3. Passing the Mathematical Literacy Examination administered by the Department of Mathematical Sciences. To qualify to take the Mathematical Literacy Examination, a student must have achieved a score of 630 or better on the SAT Math exam or a score of 28 or better on the ACT Math exam. A student may take the Mathematical Literacy Examination only once. Further details are available from the Department of Mathematical Sciences.

Students must complete the mathematical literacy requirement by the time they have earned 30 credits; if not, they must register for a mathematical sciences course every semester until they have completed the requirement. Because many other courses at the university assume some mathematical literacy, it is strongly recommended that all students complete their mathematical literacy requirement as soon as possible.

Upon completion of the mathematical literacy requirement, a student will be able to effectively apply mathematical or statistical reasoning to a variety of applied or theoretical problems.

## Group III: Modern and Classical Languages

The study of language is a core component of a liberal arts education. Students must complete the first-year sequence of a language or demonstrate comparable proficiency to fulfill the General Education language requirement (test-out provisions apply).

The language requirement can be met in any of the following ways:

1. by achieving a C- or better in a second-semester language course offered at the University of Montana (see list of courses below);
2. by achieving a grade of C- or better in a language course numbered 201 or above at the University of Montana (see list of courses below);
3. by presenting a transcript record of completion with a grade of C- or better of a second- semester (or more advanced) language course at an accredited college or university;
4. by achieving an appropriate score on a placement exam administered by the offering department;
5. by receiving verification of an appropriate level of proficiency in any other natural language in collaboration with the department of World Languages and Cultures. Note that the student's native language, if it is not English, can be used to fulfill this requirement.

Upon completion of the Modern and Classical Languages requirement, the student will have a basic functional knowledge of a second natural language sufficient to:

- read and write if the language is classical, such as Latin or classical Greek;
- speak and aurally comprehend, if the language does not have a written tradition, such as Salish;
- perform all four skills (speaking, aural comprehension, reading, and writing) if the language is modern and has a written tradition, such as Japanese or French;
- demonstrate both receptive (visual comprehension) and expressive (manual production) proficiency if the language is American Sign Language.

The courses listed below require prerequisites be met before registration. The prerequisites for the following courses are listed in the individual course descriptions.

| Code                           | Title                                        | Hours |
|--------------------------------|----------------------------------------------|-------|
| <b>ARABIC</b>                  |                                              |       |
| Complete one of the following: |                                              |       |
| ARAB 102                       | Elementary Modern Standard Arabic II         |       |
| ARAB 201                       | Intermediate Modern Standard Arabic I        |       |
| ARAB 202                       | Intermediate Modern Standard Arabic II       |       |
| ARAB 301                       | Advanced Modern Standard Arabic I            |       |
| ARAB 302                       | Advanced Modern Standard Arabic II           |       |
| <b>CHINESE</b>                 |                                              |       |
| Complete one of the following: |                                              |       |
| CHIN 102                       | Elementary Chinese II                        |       |
| CHIN 201                       | Intermediate Chinese I                       |       |
| CHIN 202                       | Intermediate Chinese II                      |       |
| CHIN 301                       | Advanced Chinese I                           |       |
| <b>FRENCH</b>                  |                                              |       |
| Complete one of the following: |                                              |       |
| FRCH 102                       | Elementary French II                         |       |
| FRCH 201                       | Intermediate French I                        |       |
| FRCH 202                       | Intermediate French II                       |       |
| FRCH 301                       | Advanced Grammar/Oral and Written Expression |       |
| <b>GERMAN</b>                  |                                              |       |

Complete one of the following:

|          |                                                   |
|----------|---------------------------------------------------|
| GRMN 102 | Elementary German II                              |
| GRMN 201 | Intermediate German I                             |
| GRMN 202 | Intermediate German II                            |
| GRMN 301 | Studies in German Language, Media, and Culture I  |
| GRMN 302 | Studies in German Language, Media, and Culture II |

#### GREEK

Complete one of the following:

|         |                       |
|---------|-----------------------|
| GRK 102 | Elementary Greek II   |
| GRK 201 | Intermediate Greek I  |
| GRK 202 | Intermediate Greek II |

#### IRISH

Complete one of the following:

|          |                       |
|----------|-----------------------|
| IRSH 102 | Elementary Irish II   |
| IRSH 201 | Intermediate Irish I  |
| IRSH 202 | Intermediate Irish II |

#### ITALIAN

Complete one of the following:

|          |                       |
|----------|-----------------------|
| ITLN 102 | Elementary Italian II |
|----------|-----------------------|

#### JAPANESE

Complete one of the following:

|          |                          |
|----------|--------------------------|
| JPNS 102 | Elementary Japanese II   |
| JPNS 201 | Intermediate Japanese I  |
| JPNS 202 | Intermediate Japanese II |
| JPNS 301 | Advanced Japanese        |
| JPNS 302 | Advanced Japanese        |

#### LATIN

Complete one of the following:

|          |                       |
|----------|-----------------------|
| LATN 102 | Elementary Latin II   |
| LATN 201 | Intermediate Latin I  |
| LATN 202 | Intermediate Latin II |

#### BLACKFOOT

|          |                         |
|----------|-------------------------|
| NASX 142 | Elementary Blackfoot II |
|----------|-------------------------|

#### RUSSIAN

Complete one of the following:

|          |                                         |
|----------|-----------------------------------------|
| RUSS 102 | Elementary Russian II                   |
| RUSS 201 | Intermediate Russian I                  |
| RUSS 202 | Intermediate Russian II                 |
| RUSS 301 | Russian: Oral & Written Expression I    |
| RUSS 302 | Russian: Oral and Written Expression II |

#### SPANISH

Complete one of the following:

|          |                                      |
|----------|--------------------------------------|
| SPNS 102 | Elementary Spanish II                |
| SPNS 201 | Intermediate Spanish I               |
| SPNS 202 | Intermediate Spanish II              |
| SPNS 301 | Spanish: Oral and Written Expression |

- Students may satisfy the requirement by demonstrating equivalent skill in any of these or other languages in testing administered by the Department of World Languages and Cultures.



- International students from non-English-speaking countries may satisfy this requirement by presenting a TOEFL score of 580 or greater.

## Exceptions to the Modern and Classical Language Requirement

The extended majors listed below have been granted exceptions to the Modern and Classical Language requirement. Students graduating in any one of these majors are not required to complete the Modern and Classical Language requirement. Students graduating with an Associate of Arts degree have also been granted an exception to the Group III requirements. Missoula College students who continue to Mountain Campus without graduating will need to complete Group III unless their declared four-year major has been granted an exception.

- Accounting
- Art (Bachelor of Fine Arts only; BA students must complete the language requirement)
- Bachelor of Applied Arts and Sciences
- Bachelor of Music in Composition
- Bachelor of Music in Performance
- Bachelor of Music Education
- Biochemistry
- Biology
- Business Management
- Chemistry
- Computer Science
- Computational Biochemistry
- Cybersecurity
- Early Childhood Education
- Elementary Education
- Environmental Science and Sustainability
- Finance
- Forestry
- Game Design and Interactive Media
- Geosciences
- Human Biology and Biomedical Sciences
- Integrative Physiology
- Management Information Systems
- Marketing
- Mathematics
- Mathematics/Computer Science and Computer Science/ Mathematics combined majors
- Media Arts (Bachelor of Fine Arts only; BA students must complete the language requirement),
- Medical Laboratory Science
- Microbiology, Immunology, and Infectious Disease
- Neuroscience
- Pharmaceutical Sciences
- Parks, Tourism and Recreation Management
- Physics
- Theatre (Bachelor of Fine Arts only; BA students must complete the language requirement)
- Wildlife Biology

## Group IV: Expressive Arts

Expressive Arts courses are activity-based and emphasize the value of learning by doing in an artistic context. Upon completion of an Expressive Arts course, students will be able to express themselves in the making of an original work or creative performance; understand the genres and/or forms that have shaped the medium; and critique the quality of their own work and that of others.

| Code      | Title                                                        | Hours |
|-----------|--------------------------------------------------------------|-------|
| ARTZ 105A | Visual Language - Drawing                                    | 3     |
| ARTZ 108A | Visual Language - 3-D Foundations                            | 3     |
| ARTZ 131A | Ceramics for Non-majors                                      | 3     |
| ARTZ 211A | Drawing I                                                    | 3     |
| ARTZ 221A | Painting I                                                   | 3     |
| ARTZ 231A | Ceramics I                                                   | 3     |
| ARTZ 251A | Sculpture I                                                  | 3     |
| ARTZ 271A | Printmaking I                                                | 3     |
| ARTZ 284A | Photography I: Technologies and Processes                    | 3     |
| ARTZ 302A | Teaching Early Childhood and Elementary Art                  | 2     |
| ARTZ 314A | Environmental Drawing                                        | 1-6   |
| COMX 111A | Introduction to Public Speaking                              | 3     |
| CRWR 210A | Introductory Fiction Workshop                                | 3     |
| CRWR 211A | Introductory Poetry Workshop                                 | 3     |
| CRWR 212A | Introductory Nonfiction Workshop                             | 3     |
| CRWR 240A | Introduction to Creative Writing Workshop                    | 3     |
| CRWR 312A | Intermediate Nonfiction Workshop                             | 3     |
| DANC 100A | Introduction to Modern Dance                                 | 3     |
| DANC 108A | Dance Forms                                                  | 1-8   |
| DANC 110A | Introduction to Ballet                                       | 3     |
| DANC 115A | Introduction to Jazz Dance                                   | 3     |
| DANC 129A | Dance Performance Lab I                                      | 1     |
| DANC 130A | Introduction to Dance                                        | 3     |
| DANC 160A | Dance Forms: Irish                                           | 2     |
| DANC 165A | Dance Forms: African                                         | 3     |
| DANC 200A | Contemporary Modern II                                       | 2     |
| DANC 210A | Ballet II                                                    | 2     |
| DANC 215A | Jazz Dance II                                                | 2     |
| DANC 229A | Dance Performance Lab II                                     | 1     |
| DDSN 113A | Technical Drafting                                           | 3     |
| ENST 373A | Writing the Earth: Workshop on Nature, Environment & Justice | 3     |
| GDSN 149A | Digital Imaging I                                            | 3     |
| JRNL 140A | Intro Radio/Audio Storytelling                               | 3     |
| JRNL 257A | Beginning Video and Photojournalism                          | 3     |
| MART 112A | Introduction to Film Editing                                 | 3     |
| MART 245  | Sound Production & Design Fundamentals                       | 3     |
| MUSI 102A | Performance Study                                            | 1-2   |
| MUSI 104A | Music Fundamentals                                           | 3     |
| MUSI 108A | Orchestra: UMSO                                              | 1     |
| MUSI 110A | Opera Theatre I                                              | 1     |
| MUSI 111A | Group Voice Class                                            | 2     |

|           |                                         |   |
|-----------|-----------------------------------------|---|
| MUSI 112A | Choir                                   | 1 |
| MUSI 114A | Band: UM Concert Band                   | 1 |
| MUSI 122A | Percussion Ensemble: UM                 | 1 |
| MUSI 123A | World Percussion Ensemble               | 1 |
| MUSI 131A | Jazz Ensemble I: UM Jazz Bands          | 1 |
| MUSI 135A | Keyboard Skills I                       | 1 |
| MUSI 136A | Keyboard Skills II                      | 1 |
| MUSI 155A | Grizzly Marching Band                   | 1 |
| MUSI 160A | Beginning Guitar                        | 2 |
| MUSI 162A | Chamber Ensembles I                     | 1 |
| MUSI 267A | Composer's Workshop                     | 1 |
| MUSI 304A | Sound in the Natural World              | 3 |
| THTR 102A | Introduction to Theatre Design          | 3 |
| THTR 107A | Theatre Production I: Construction Crew | 3 |
| THTR 113A | Introduction to Voice Acting            | 3 |
| THTR 120A | Introduction to Acting I                | 3 |
| THTR 239A | Creative Drama/Dance: K-8               | 2 |

## Group V: Literary and Artistic Studies

In these courses, students develop familiarity with significant works of artistic representation, including literature, music, visual art, and/or performing arts. Through this experience, students enhance their analytical skills and explore the historical, aesthetic, philosophical, and cultural features of these works.

Upon completion of a Literary and Artistic Studies course, students will be able to:

1. analyze works of art with respect to structure and significance within literary and artistic traditions, including emergent movements and forms; and
2. develop coherent arguments that critique these works from a variety of approaches, such as historical, aesthetic, cultural, psychological, political, and philosophical.

| Code      | Title                                                            | Hours |
|-----------|------------------------------------------------------------------|-------|
| ARTH 250L | Introduction to Art Criticism                                    | 3     |
| CHIN 313L | Chinese Poetry in Translation                                    | 3     |
| CLAS 160L | Classical Mythology                                              | 3     |
| CLAS 251L | The Epic                                                         | 3     |
| CLAS 252L | Greek Drama: Politics on Stage                                   | 3     |
| COMX 140L | Introduction to Visual Rhetoric                                  | 3     |
| CRWR 115L | Montana Writers Live                                             | 3     |
| DANC 234L | Dance in Popular Movies                                          | 3     |
| DANC 360L | World Dance                                                      | 3     |
| ENST 335L | Literature of the Earth                                          | 3     |
| FILM 103L | Introduction to Film                                             | 3     |
| FRCH 338  | The French Cinema                                                | 3     |
| GH 151L   | Introduction to Western Humanities: Antiquity                    | 3     |
| GRMN 317L | Introduction to Multicultural Literature in Contemporary Germany | 3     |
| GRMN 322L | Survey of German Cinema                                          | 3     |
| GRMN 340L | Nature and the Environment in German Literature and Film         | 3     |

|           |                                                              |   |
|-----------|--------------------------------------------------------------|---|
| HONR 121L | Ways of Knowing                                              | 3 |
| HSTR 210E | History of the Bible                                         | 3 |
| HSTR 211L | Early Christianity                                           | 3 |
| IRSH 345L | Literature in the Irish Lang                                 | 3 |
| JPNS 312L | Japanese Literature: Medieval to Modern                      | 3 |
| JRNL 383L | Hollywood and the War Correspondent                          | 3 |
| LIT 110L  | Introduction to Literature                                   | 3 |
| LIT 120L  | Poetry                                                       | 3 |
| LIT 236L  | Literary Histories                                           | 3 |
| LIT 246L  | Genres, Themes, Approaches                                   | 3 |
| LIT 280L  | Ecology of Literature                                        | 3 |
| LIT 314L  | The American Novel                                           | 3 |
| LIT 327L  | Shakespeare                                                  | 3 |
| LIT 337L  | Gender & Sexuality in English Fiction                        | 3 |
| LIT 350L  | Chaucer                                                      | 3 |
| LIT 353L  | Milton                                                       | 3 |
| MART 101L | Intro to Media Arts                                          | 3 |
| MUSI 101L | Enjoyment of Music                                           | 3 |
| MUSI 130L | History of Jazz                                              | 3 |
| MUSI 132L | History of Rock & Roll                                       | 3 |
| MUSI 202L | Intro to Music Literature                                    | 3 |
| NASX 235X | Oral and Written Traditions of Native Americans              | 3 |
| NASX 239L | Native North American History & Art                          | 3 |
| PHL 101L  | Introduction to Philosophy                                   | 3 |
| PHL 102L  | Introduction to Existentialism                               | 3 |
| PHL 327L  | Aesthetics and the Arts                                      | 3 |
| RUSS 306L | Evil and the Supernatural in Russian Literature              | 3 |
| RUSS 307L | Beauty, Power and Pride in Russian Literature                | 3 |
| THTR 101L | Introduction to Theatre                                      | 3 |
| THTR 235L | Dramatic Literature                                          | 3 |
| WGSS 163L | Historical and Literary Perspectives in Gender and Sexuality | 3 |

## Group VI: Historical Studies

The primary purpose of courses in this perspective is to explore the historical contexts and narratives of human behavior, ideas, institutions, and societies through an analysis of their patterns of development or differentiation in the past. These courses are wide-ranging in chronological, geographical, or topical focus. They introduce students to methods of inquiry that enable them to understand and evaluate the causes and significance of events, texts, or artifacts.

Upon completion of a course in this group, a student will be able to:

1. Critically analyze and evaluate primary sources – such as texts, pictorial evidence, oral histories, music, and artifacts- within their respective historical contexts.
2. Synthesize ideas and information in order to understand the problems, causes, and consequences of historical developments and events.

| Code      | Title                                                | Hours |
|-----------|------------------------------------------------------|-------|
| AAST 141H | Black: From Africa to Hip-Hop                        | 3     |
| AAST 208H | Africa: From Ancient Egypt to Apartheids Origin      | 3     |
| ANTY 101H | Anthropology & the Human Experience                  | 3     |
| ANTY 102H | Intro to South & S. East Asia                        | 3     |
| ANTY 103H | Intro Latin American Studies                         | 3     |
| ANTY 141H | The Silk Road                                        | 3     |
| ANTY 241H | Central Asian Culture and Civilization               | 3     |
| ANTY 351H | Archaeology of North America                         | 3     |
| ANTY 354H | Mesoamerican Prehistory                              | 3     |
| ARTH 150H | Introduction to Art History                          | 3     |
| ARTH 201H | Art of World Civilization: 1400 to Present           | 3     |
| ARTH 333H | Architectural History I                              | 3     |
| ARTH 334H | Architectural History II                             | 3     |
| CLAS 180H | Environment & Nature in Classical World              | 3     |
| CLAS 360H | Ancient Greek Civilization and Culture               | 3     |
| COMX 240H | Introduction to Rhetorical Theory                    | 3     |
| ENST 230H | Nature and Society                                   | 3     |
| ENST 231H | Nature and Society                                   | 3     |
| FILM 300  | History of Film                                      | 3     |
| GRMN 106H | Introduction to German Culture and Civilization      | 3     |
| GRMN 351H | German Culture: Beginnings to Romanticism            | 3     |
| GRMN 352H | Germ Culture: Romanticism to the Present             | 3     |
| HSTA 101H | American History I                                   | 4     |
| HSTA 102H | American History II                                  | 4     |
| HSTA 103H | Honors American History I                            | 4     |
| HSTA 104H | Honors American History II                           | 4     |
| HSTA 150H | The Veteran's Experience                             | 3     |
| HSTA 275  | Making History Public                                | 3     |
| HSTA 285H | Sex in America: Gender and Sexuality in U.S. History | 3     |
| HSTA 342H | African American History to 1865                     | 3     |
| HSTA 343H | African American History Since 1865                  | 3     |
| HSTA 370H | Women in America: Colonial Period to Civil War       | 3     |
| HSTA 371H | Women in America: From the Civil War to the Present  | 3     |
| HSTR 101H | Western Civilization I                               | 4     |
| HSTR 102H | Western Civilization II                              | 4     |
| HSTR 103H | Honors Western Civilization I                        | 4     |
| HSTR 104H | Honors Western Civilization II                       | 4     |
| HSTR 221H | God- Past, Puzzle, Present                           | 3     |
| HSTR 230H | Colonial Latin America                               | 3     |
| HSTR 231H | Modern Latin America                                 | 3     |
| HSTR 240H | East Asian Civilizations                             | 3     |
| HSTR 262H | Islamic Civilization: Classical Age                  | 3     |
| HSTR 264H | Islamic Civ: Modrn Era                               | 3     |
| HSTR 302H | Ancient Greece                                       | 3     |
| HSTR 304H | Ancient Rome                                         | 3     |
| JPNS 150H | Japanese Culture & Civilization                      | 3     |

|           |                                         |   |
|-----------|-----------------------------------------|---|
| JRNL 100H | Journalism and American Society         | 3 |
| MART 201H | History of Digital Arts & Culture       | 3 |
| MUSI 132L | History of Rock & Roll                  | 3 |
| MUSI 301H | Music History I                         | 3 |
| MUSI 302H | Music History II                        | 3 |
| NASX 105H | Introduction to Native American Studies | 3 |
| PHL 241N  | Hist & Philosophy of Science            | 3 |
| SSEA 202X | Introduction to India                   | 3 |
| THTR 330H | Theatre History I                       | 3 |

## Group VII: Social Sciences

Social science courses describe and analyze human social organization and interaction, employing social data at a broad scale with statistical relevance, experimental data on individuals or groups, or qualitative data based on observation and discourse.

Upon completion of a Social Sciences course, students will be able to:

1. Describe the nature, structure, and historical development of human behavior, organizations, social phenomena, and/or relationships;
2. Use theory in explaining these individual, group, or social phenomena; and/or
3. Understand, assess, and evaluate how conclusions and generalizations are justified based on data.

| Code      | Title                                        | Hours |
|-----------|----------------------------------------------|-------|
| ANTY 122S | Race and Minorities                          | 3     |
| ANTY 220S | Culture & Society                            | 3     |
| ANTY 250S | Intro to Archaeology                         | 3     |
| BFIN 205S | Personal Finance                             | 3     |
| BGEN 105S | Introduction to Business                     | 3     |
| BGEN 160S | Issues in Sustainability                     | 3     |
| BMGT 101S | Introduction to Entertainment Management     | 3     |
| COMX 115S | Introduction to Interpersonal Communication  | 3     |
| COMX 202S | Nonverbal Communication                      | 3     |
| COMX 219S | Survey of Children's Communication           | 3     |
| COMX 220S | Introduction to Organizational Communication | 3     |
| COUN 242S | Intimate Relationships                       | 3     |
| ECNS 101S | Economic Way of Thinking                     | 3     |
| ECNS 201S | Principles of Microeconomics                 | 3     |
| ECNS 202S | Principles of Macroeconomics                 | 3     |
| EDU 222   | Educational Psychology and Child Development | 3     |
| ENST 225S | Sustainable Communities                      | 3     |
| ENST 489S | Environmental Justice Issues & Solutions     | 3     |
| GPHY 121S | Human Geography                              | 3     |
| GPHY 141S | Geography of World Regions                   | 3     |
| GPHY 323S | Economic Geography of Rural Areas            | 3     |
| LING 270S | Intro to Linguistics                         | 3     |
| NRSM 121S | Environmental Science and Sustainability     | 3     |
| NRSM 370S | Wildland Conservation Policy/Governance      | 3     |
| PSCI 210S | Intro to American Government                 | 3     |
| PSCI 220S | Intro to Comparative Government              | 3     |

|           |                                                           |   |
|-----------|-----------------------------------------------------------|---|
| PSYX 100S | Intro to Psychology                                       | 3 |
| PTRM 210S | Nature Tourism & Commercial Recreation                    | 3 |
| PTRM 217S | Parks & Outdoor Recreation Management                     | 3 |
| PUBH 101S | Introduction to Public Health                             | 3 |
| S W 100S  | Introduction to Social Welfare                            | 3 |
| SOCI 101S | Introduction to Sociology                                 | 3 |
| SOCI 211S | Introduction to Criminology                               | 3 |
| SOCI 220S | Race, Gender & Class                                      | 3 |
| SOCI 275S | Gender and Society                                        | 3 |
| WGSS 263S | Social and Political Perspectives on Gender and Sexuality | 3 |

## Group VIII: Ethics and Human Values

Ethics and Human Values courses familiarize students with one or more traditions of ethical thought. These courses rigorously present the basic concepts and forms of reasoning that define and distinguish each tradition. The focus of these courses may be on one or more of these traditions, or on a concept such as justice or the good life as conceptualized within one or more of these traditions, or on a professional practice within a particular tradition.

Upon completion of an Ethics and Human Values course, students will be able to:

1. Correctly apply the basic concepts and forms of reasoning from the tradition or professional practice they studied to ethical issues that arise within those traditions or practices;
2. Analyze and critically evaluate the basic concepts and forms of reasoning from the tradition or professional practice they studied.

| Code      | Title                                                    | Hours |
|-----------|----------------------------------------------------------|-------|
| AHMS 270E | Medical Ethics                                           | 3     |
| ANTY 326E | Indigenous Peoples & the Ethics of Development           | 3     |
| BGEN 220E | Business Ethics and Social Responsibility                | 3     |
| BIOB 220  | Our Environment & Us                                     | 3     |
| CSCI 215E | Social & Ethical Issues in CS                            | 3     |
| CSCI 315E | Computers, Ethics, and Society                           | 3     |
| EDU 407E  | Ethics & Policy Issues                                   | 3     |
| ENST 320E | Earth Ethics                                             | 3     |
| HONR 122E | Ways of Knowing II                                       | 3     |
| HONR 320E | Art of Inquiry: Research and Capstone Seminar            | 3     |
| HSTA 201E | History of American Democracy                            | 4     |
| HSTA 336E | America at War, 1898-Present                             | 3     |
| HSTR 210E | History of the Bible                                     | 3     |
| HSTR 211L | Early Christianity                                       | 3     |
| HSTR 272E | Terrorism: Violence in the Modern World                  | 3     |
| HTH 475E  | Legal and Ethical Issues Health and Exercise Professions | 3     |
| LEG 184E  | Legal Ethics                                             | 3     |
| LIT 319E  | Talking to God: Bhagavad Gita                            | 3     |
| NASX 303E | Ecological Perspectives in Native American Traditions    | 3     |
| NASX 304E | Native American Beliefs and Philosophy                   | 3     |
| NRSM 349E | Climate Change Ethics and Policy                         | 3     |

|           |                                       |   |
|-----------|---------------------------------------|---|
| NRSM 389E | Ethics and Sustainability             | 3 |
| PHAR 514E | Case Studies in Pharmaceutical Ethics | 3 |
| PHL 110E  | Introduction to Ethics                | 3 |
| PHL 112E  | Intro Ethics and Environment          | 3 |
| PHL 114E  | Intro to Political Ethics             | 3 |
| PHL 210E  | Moral Philosophy                      | 3 |
| PHL 309E  | The Art of Living                     | 3 |
| PHL 317E  | Law and Morality                      | 3 |
| PHL 319E  | Law and Discrimination                | 3 |
| PHL 321E  | Philosophy & Biomedical Ethics        | 3 |
| PSCI 250E | Intro to Political Theory             | 3 |
| PUBH 475E | Public Health Ethics                  | 3 |
| S W 410E  | Social Work Ethics                    | 3 |
| SOCI 301E | Criminal Justice Ethics               | 3 |

## Group IX: Democracy and Citizenship

These courses ground students in the ideas, institutions, and practices of democratic societies and their historical antecedents. Knowledge gained through courses in the Democracy and Citizenship perspective prepares students to understand the rights and responsibilities of engaged citizenship and to assess the characteristics, contributions, and contradictions of democratic systems.

Upon completion of a Democracy and Citizenship course, students will be able to:

1. Demonstrate informed and reasoned understanding of democratic ideas, institutions and practices, from historical and/or contemporary perspectives;
2. Analyze and evaluate the significance and complexities of engaged citizenship; and
3. Articulate the causes and consequences of key historical and/or contemporary struggles within democratic systems or their antecedents, including but not limited to those pertaining to issues of diversity, equity, and justice.

| Code      | Title                                    | Hours |
|-----------|------------------------------------------|-------|
| ANTY 122S | Race and Minorities                      | 3     |
| COMX 140L | Introduction to Visual Rhetoric          | 3     |
| COMX 205Y | Deliberative Democracy                   | 3     |
| ENST 225S | Sustainable Communities                  | 3     |
| HONR 122E | Ways of Knowing II                       | 3     |
| HSTA 101H | American History I                       | 4     |
| HSTA 102H | American History II                      | 4     |
| HSTA 103H | Honors American History I                | 4     |
| HSTA 104H | Honors American History II               | 4     |
| HSTA 150H | The Veteran's Experience                 | 3     |
| HSTA 201E | History of American Democracy            | 4     |
| HSTA 307Y | The American Revolution and Founding Era | 3     |
| HSTR 101H | Western Civilization I                   | 4     |
| HSTR 102H | Western Civilization II                  | 4     |
| HSTR 103H | Honors Western Civilization I            | 4     |
| HSTR 104H | Honors Western Civilization II           | 4     |
| JRNL 100H | Journalism and American Society          | 3     |
| JRNL 102Y | Calling Bullshit                         | 3     |

|           |                                                |   |           |                                                   |   |
|-----------|------------------------------------------------|---|-----------|---------------------------------------------------|---|
| LSCI 210Y | Who Owns Culture? An Introduction to Copyright | 3 | ANTY 406X | Contemporary Issues of Indigenous Peoples         | 3 |
| MUSI 301H | Music History I                                | 3 | ARAB 305  | The Arab World                                    | 3 |
| MUSI 302H | Music History II                               | 3 | ARTH 150H | Introduction to Art History                       | 3 |
| NPAD 166Y | Introduction to Public Service                 | 3 | CAS 140X  | Addictions and Diversity                          | 3 |
| PHL 114E  | Intro to Political Ethics                      | 3 | CCS 103X  | Introduction to Climate Change: Science & Society | 3 |
| PHL 261Y  | History of Ancient Philosophy                  | 3 | COMX 204X | International and Development Communication       | 3 |
| PHL 262Y  | History of Modern Philosophy                   | 3 | COMX 212X | Introduction to Intercultural Communication       | 3 |
| PHL 306   | Science, Democracy, and Truth                  | 3 | DANC 360L | World Dance                                       | 3 |
| PHL 317E  | Law and Morality                               | 3 | GPHY 121S | Human Geography                                   | 3 |
| PHL 319E  | Law and Discrimination                         | 3 | GPHY 141S | Geography of World Regions                        | 3 |
| PSCI 210S | Intro to American Government                   | 3 | HSTR 230H | Colonial Latin America                            | 3 |
| PSCI 220S | Intro to Comparative Government                | 3 | HSTR 231H | Modern Latin America                              | 3 |
| PSCI 352Y | American Political Thought                     | 3 | HSTR 240H | East Asian Civilizations                          | 3 |
| PTRM 141Y | National Parks and American Culture            | 3 | JPNS 150H | Japanese Culture & Civilization                   | 3 |
| RUSS 105Y | Intro to Russian Culture                       | 3 | JRNL 105X | Global Current Events                             | 3 |
| SOCI 220S | Race, Gender & Class                           | 3 | JRNL 301X | Diversity in Media                                | 3 |
|           |                                                |   | LING 375X | Linguistic Ecology and Language Endangerment      | 3 |

## Group X: Cultural & International Diversity

These courses foster an appreciation for diverse cultures, their histories and values, and their struggles both to maintain their ways of life and to gain equal positions in world spheres of power and change. This includes knowledge of diverse cultures in comparative and thematic frameworks. Knowledge gained through courses in the Cultural & International Diversity perspective prepares students to cultivate ways of thinking that foster an understanding of the complexities of indigenous or international cultures and global issues, past and present.

Upon completion of a course in this group, students will be able to:

1. Demonstrate an understanding of the diverse ways humans structure their social, political, and cultural lives;
2. Interpret human activities, ideas, and institutions with reference to diverse cultural, historical and geo-political perspectives and physical environments; and
3. Recognize the complexities of inter-cultural and international communications and collaborative endeavors, and relate this to the complex challenges of the 21st century.

| Code      | Title                                                                                     | Hours |           |                                                |     |
|-----------|-------------------------------------------------------------------------------------------|-------|-----------|------------------------------------------------|-----|
| AAST 141H | Black: From Africa to Hip-Hop                                                             | 3     |           |                                                |     |
| ANTY 101H | Anthropology & the Human Experience                                                       | 3     |           |                                                |     |
| ANTY 102H | Intro to South & S. East Asia                                                             | 3     |           |                                                |     |
| ANTY 103H | Intro Latin American Studies                                                              | 3     |           |                                                |     |
| ANTY 133X | Food and Culture                                                                          | 3     |           |                                                |     |
| ANTY 141H | The Silk Road                                                                             | 3     |           |                                                |     |
| ANTY 150X | Archaeology of Yellowstone: 11,000 Years of Native Americans in Yellowstone National Park | 3     |           |                                                |     |
| ANTY 220S | Culture & Society                                                                         | 3     |           |                                                |     |
| ANTY 241H | Central Asian Culture and Civilization                                                    | 3     |           |                                                |     |
| ANTY 254X | Archaeological Wonders of the World                                                       | 3     |           |                                                |     |
| ANTY 323X | Native Peoples of Montana                                                                 | 3     |           |                                                |     |
| ANTY 330X | Peoples and Cultures of World                                                             | 3     |           |                                                |     |
| ANTY 351H | Archaeology of North America                                                              | 3     |           |                                                |     |
| ANTY 352X | Archaeology of Montana                                                                    | 3     |           |                                                |     |
|           |                                                                                           |       | PHL 319E  | Law and Discrimination                         | 3   |
|           |                                                                                           |       | PSCI 230X | Intro to International Relations               | 3   |
|           |                                                                                           |       | PTRM 345X | Sustaining Human Society & Natural Environment | 3-6 |
|           |                                                                                           |       | RUSS 105Y | Intro to Russian Culture                       | 3   |
|           |                                                                                           |       | S W 110   | Global Justice and Sustainable Development     | 3   |
|           |                                                                                           |       | SSEA 202X | Introduction to India                          | 3   |

## Group XI: Natural Sciences

These courses present scientific conclusions about the structure and function of the natural world, and demonstrate or exemplify scientific questioning and validation of findings.

Upon completion of a Natural Science course, a student will be able to:

1. understand the general principles associated with the discipline(s) studied;



2. understand the methodology and activities scientists use to gather, validate and interpret data related to natural processes;
3. detect patterns, draw conclusions, develop conjectures and hypotheses, and test them by appropriate means and experiments;
4. understand how scientific laws and theories are verified by quantitative measurement, scientific observation, and logical/critical reasoning;
5. and understand the means by which analytic uncertainty is quantified and expressed in the natural sciences.

To fulfill the Natural Sciences General Education Requirement, a student must complete at least one Natural Science designated course with a laboratory experience.

## All Natural Science Courses

| Code      | Title                                     | Hours |
|-----------|-------------------------------------------|-------|
| ANTY 210N | Introduction to Biological Anthropology   | 3     |
| ANTY 213N | Biological Anthropology Lab               | 1     |
| ASTR 131N | Planetary Astronomy                       | 3     |
| ASTR 132N | Stars, Galaxies, and the Universe         | 3     |
| ASTR 134N | Planetary Astronomy Lab                   | 1     |
| ASTR 135N | Stars, Galaxies, and the Universe Lab     | 1     |
| ASTR 142N | The Evolving Universe                     | 4     |
| BIOB 101N | Discover Biology                          | 3     |
| BIOB 109N | Montana Ecosystems                        | 3     |
| BIOB 161N | Principles of Living Systems Lab          | 1     |
| BIOB 170N | Principles of Biological Diversity        | 3     |
| BIOB 171N | Principles of Biological Diversity Lab    | 2     |
| BIOB 210N | Communicating Biology                     | 3     |
| BIOB 226N | General Science: Chemical & Life Sciences | 5     |
| BIOE 172N | Introductory Ecology                      | 3     |
| BIOH 104N | Basic Human Biology                       | 3     |
| BIOH 105N | Basic Human Biology Laboratory            | 1     |
| BIOH 201N | Human Anatomy & Physiology I              | 4     |
| BIOH 202N | Human Anatomy and Physiology I Lab        | 0     |
| BIOH 211N | Human Anatomy and Physiology II           | 4     |
| BIOH 212N | Human Anatomy and Physiology II Lab       | 0     |
| BIOM 250N | Microbiology for Health Sciences          | 3     |
| BIOO 105N | Introduction to Botany                    | 3     |
| CAS 231N  | Pharmacology and Addictions               | 3     |
| CHMY 121N | Introduction to General Chemistry         | 4     |
| CHMY 141N | College Chemistry I                       | 4     |
| CHMY 142N | College Chemistry I Lab                   | 1     |
| CHMY 143N | College Chemistry II                      | 4     |
| CHMY 144N | College Chemistry II Lab                  | 1     |
| CJUS 125N | Fundamentals of Forensic Science          | 3     |
| CSD 221N  | Fundamentals of Acoustics                 | 3     |
| CSD 222   | Introduction to Sound and Hearing         | 3     |
| ENSC 105N | Environmental Science                     | 3     |
| ERTH 101N | Earth Systems Science                     | 3     |
| ERTH 103N | Earth Systems Science Lab                 | 1     |
| ERTH 303N | Weather and Climate                       | 3     |
| FORS 241N | Dendrology                                | 3     |
| GEO 101N  | Introduction to Physical Geology          | 3     |

|           |                                                                                |   |
|-----------|--------------------------------------------------------------------------------|---|
| GEO 102N  | Introduction to Physical Geology Lab                                           | 1 |
| GEO 105N  | Oceanography                                                                   | 3 |
| GEO 107N  | Natural Disasters                                                              | 3 |
| GEO 224N  | General Science: Physics & Geoscience                                          | 5 |
| GPHY 111N | Intro to Physical Geography: Climate, Landforms, and Vegetation                | 3 |
| GPHY 112N | Intro to Physical Geography Laboratory: Climate, Landforms, and Vegetation Lab | 1 |
| GPHY 311N | Biogeography                                                                   | 3 |
| KIN 105   | Foundations of Exercise Science                                                | 2 |
| KIN 106   | Foundations of Exercise Science Lab                                            | 1 |
| NEUR 110N | Introduction to Brain Diseases                                                 | 3 |
| NRSM 211N | Soils and Water                                                                | 2 |
| NRSM 212N | Ecology, Physics and Taxonomy of Soils                                         | 1 |
| NRSM 271N | Conservation Ecology                                                           | 3 |
| NUTR 221N | Basic Human Nutrition                                                          | 3 |
| PHAR 110N | Use & Abuse of Drugs                                                           | 3 |
| PHL 241N  | Hist & Philosophy of Science                                                   | 3 |
| PHSX 105N | Fundamentals of Physical Science                                               | 3 |
| PHSX 141N | Einstein's Relativity                                                          | 3 |
| PHSX 205N | College Physics I                                                              | 4 |
| PHSX 206N | College Physics I Laboratory                                                   | 1 |
| PHSX 207N | College Physics II                                                             | 4 |
| PHSX 208N | College Physics II Laboratory                                                  | 1 |
| PHSX 215N | Fundamentals of Physics with Calculus I                                        | 4 |
| PHSX 216N | Physics Laboratory I with Calculus                                             | 1 |
| PHSX 217N | Fundamentals of Physics with Calculus II                                       | 4 |
| PHSX 218N | Physics Laboratory II with Calculus                                            | 1 |
| PSYX 250N | Fundamentals of Biological Psychology                                          | 3 |
| WILD 105N | Wildlife & People                                                              | 3 |

## Natural Science Courses with a Laboratory Experience

| Code      | Title                                     | Hours |
|-----------|-------------------------------------------|-------|
| ANTY 213N | Biological Anthropology Lab               | 1     |
| ASTR 134N | Planetary Astronomy Lab                   | 1     |
| ASTR 135N | Stars, Galaxies, and the Universe Lab     | 1     |
| ASTR 142N | The Evolving Universe                     | 4     |
| BIOB 101N | Discover Biology                          | 3     |
| BIOB 109N | Montana Ecosystems                        | 3     |
| BIOB 161N | Principles of Living Systems Lab          | 1     |
| BIOB 171N | Principles of Biological Diversity Lab    | 2     |
| BIOB 226N | General Science: Chemical & Life Sciences | 5     |
| BIOH 105N | Basic Human Biology Laboratory            | 1     |
| BIOH 201N | Human Anatomy & Physiology I              | 4     |
| BIOH 202N | Human Anatomy and Physiology I Lab        | 0     |
| BIOH 211N | Human Anatomy and Physiology II           | 4     |
| BIOH 212N | Human Anatomy and Physiology II Lab       | 0     |
| BIOO 105N | Introduction to Botany                    | 3     |
| CHMY 142N | College Chemistry I Lab                   | 1     |
| CHMY 144N | College Chemistry II Lab                  | 1     |
| ERTH 103N | Earth Systems Science Lab                 | 1     |
| FORS 241N | Dendrology                                | 3     |
| GEO 102N  | Introduction to Physical Geology Lab      | 1     |

|           |                                                                                |   |
|-----------|--------------------------------------------------------------------------------|---|
| GEO 224N  | General Science: Physics & Geoscience                                          | 5 |
| GPHY 112N | Intro to Physical Geography Laboratory: Climate, Landforms, and Vegetation Lab | 1 |
| KIN 106   | Foundations of Exercise Science Lab                                            | 1 |
| NRSM 212N | Ecology, Physics and Taxonomy of Soils                                         | 1 |
| PHSX 206N | College Physics I Laboratory                                                   | 1 |
| PHSX 208N | College Physics II Laboratory                                                  | 1 |
| PHSX 216N | Physics Laboratory I with Calculus                                             | 1 |
| PHSX 218N | Physics Laboratory II with Calculus                                            | 1 |

## Academic Advising & Academic Support Services

Academic advising is critical to student success at University of Montana (UM). All undergraduate students are required to meet with their advisor at least once each semester to review educational progress, discuss future plans, and secure schedule approval prior to registration. Students are encouraged to schedule additional meetings for information and guidance on dropping and/or adding courses, changing/declaring majors/other academic pursuits, exploring available resources, and ensuring that graduation requirements are met.

The UM catalog is the official source of information on the UM General Education Requirements (GERs), requirements of individual academic programs, and graduation-related policies. The Advising Manual is a comprehensive policy and procedural guide for faculty and staff advisors at UM.

## Advising Expectations

Academic Advising is a partnership between a student and their academic advisor. Advisors will work to empower students to take initiative in their educational experience and make education-related decisions. No two advising sessions are ever the same; however, there are expectations that apply to all interactions between an advisor and advisee.

### The student will...

- Build and maintain a collaborative relationship with advisor and faculty mentor (upon being assigned one).
- Maintain respectful and inclusive advising environment.
- Schedule regular appointments and/or make regular contacts with advisor during each semester.
- Understand and fulfill curriculum, graduation requirements, and University policies and procedures.
- Come prepared to each appointment with materials and questions for discussion.
- Take a proactive role in their education, document their academic record, and embrace responsibility for academic decisions.

### The advisor will...

- Build and maintain a collaborative relationship with student.
- Foster a respectful and inclusive environment for student.
- Encourage an open dialogue, maintain confidentiality, and follow FERPA (Family Educational Rights and Privacy Act) guidelines
- Remain up-to-date on professional development and advising trends.
- Reference a student's current academic records in preparation for and during an advising appointment.

- Follow development approaches in advising and support students in exploring personal and professional goals, skills, and abilities.
- Communicate major, minor, certificate, GER curriculum, graduation requirements, and University policies and procedures.
- Understand and train students to utilize University technologies, services, and resources.

## How to Prepare for an Appointment

Although academic advising is a partnership of shared responsibility between the advisor and the student, it is important for students to know that the ultimate responsibility for meeting all graduation requirements is their own. Students improve their academic planning and success by learning about the academic requirements of their academic program(s), UM policies on registration and graduation, and by using available advising services. To prepare for advising appointments, student should:

- Develop a plan of courses for the upcoming semester registration and be prepared to discuss long-term academic, personal, and professional goals.
- Login to the GrizPortal student profile to check for registration preventing holds. If holds are present, try to clear them before the advising appointment. You can also view holds on Navigate.
- Research beyond-the-classroom opportunities of interest to discuss during your advising appointment (internships, undergraduate research, volunteer opportunities, etc.)
- Be honest with your advisor about issues affecting your ability to be successful. Advisors can only help with issues or situations they are aware of. This requires open and effective communication with your advisor.

## Minimum Expectations for Advising Appointments

At minimum, the advisor and student will discuss the following points during an advising appointment:

- Checking in with the student on how the student is doing and how their semester is going. Are they enjoying their classes? Are they facing any challenges?
- Is the student's major a good fit? Are there additional majors, minors, or certificates that might help the student achieve their educational goal.
- Review of Degree Works and a comprehensive evaluation to inform the student of progress towards degree completion (major requirements, GERs, Upper-Division credits, and general electives to meet the 120-credit requirement).
- The student's plans following graduation and brainstorming opportunities for the student to reach their goals (internships, service learning, undergraduate research, education abroad, national student exchange, etc.)
- *If during priority advising*, checking to see if the student has any registration preventing and/or others holds and the priority registration timetable so the student knows when they can register for classes. Students will also receive their advising PIN so they can register for classes during priority registration. Advising PINs are unique 6-digit numbers that unlock a student's registration for the upcoming semester. Advising PINs change from semester-to-semester, which is why it is required that students meet with their advisor at least once per semester.
- Referral to any relevant resources based on the discussion (Financial Aid, Curry Health Center, Tutoring Services, TriO Student Support Services, Office of Disability Equity, etc.)

- At the end of the appointment, a summary of the main issues that surfaced and outlining next steps/tasks as relevant.
- The academic advisor will submit an appointment summary in Navigate to document the advising appointment.

## The Complementary Roles of Professional Academic Advisors and Faculty Mentors in Student Success

Professional academic advisors and faculty mentors play distinct yet complementary roles in fostering student success throughout a student's college journey. Together, they guide students toward achieving academic, career, and personal growth by leveraging their unique expertise and approaches.

While the timing of student assignment to faculty mentors varies across campus, in general, students meet primarily with their professional advisor through their first two years of study and meet more regularly with their faculty mentor through their junior and senior years. Some of the differences between the roles of professional advisors and faculty mentors are as follows:

### Professional Academic Advisors

Professional academic advisors are often the first point of contact for students. Their primary focus is on helping students navigate academic requirements and campus resources while building a strong foundation for long-term success.

Key responsibilities of academic advisors include:

- Assisting with course selection, degree planning, and meeting general education and major requirements.
- Providing onboarding support, including introducing students to essential tools like Canvas, GrizPortal, Navigate, and Degree Works.
- Guiding students through processes such as registration, academic petitions, and transfer adjustments.
- Offering advice on selecting or changing majors, identifying interests, and setting short- and long-term goals.
- Connecting students with campus resources like tutoring, wellness services, financial aid and financial education support, and career coaching.
- Supporting students on academic warning or suspension by helping develop reinstatement plans.
- Providing guidance on study abroad or national exchange programs to align with academic requirements.

Advisors are instrumental in ensuring students stay on track academically while supporting them through life's challenges, from adjusting to college to navigating unexpected hurdles.

### Faculty Mentors

Faculty mentors typically become more prominent in a student's academic journey during the junior and senior years. Their expertise in academic disciplines and career pathways allows them to guide students toward deeper engagement in their fields.

Faculty mentors contribute to student success by:

- Counseling students on career preparation and post-graduation opportunities, including graduate school.
- Advising on upper-division coursework, and specialized program requirements, with support from professional advisors.
- Engaging students in undergraduate research, creative scholarship, and experiential learning opportunities.

- Extending learning beyond the classroom by discussing subfields, new research, and potential academic directions.
- Connecting students with professional networks, internships, and opportunities to present at conferences.
- Advising on career development opportunities, including internships, clubs, and professional networks.
- Fostering personal growth by helping students build confidence, resilience, and life skills.

Faculty mentors play a vital role in nurturing students' intellectual curiosity and academic ambitions while equipping them with tools for lifelong success.

### A Collaborative Model for Student Success

The collaboration between professional academic advisors and faculty mentors ensures that students receive holistic support at every stage of their academic journey. Advisors focus on building a solid foundation and addressing logistical and practical concerns, while faculty mentors guide students through advanced exploration of their academic interests and career pathways.

This model not only supports retention and degree completion but also fosters meaningful connections between students and faculty, particularly benefiting underrepresented student populations. Together, advisors and mentors provide a network of care, challenge students to achieve their full potential, and prepare them for success both within and beyond the university.

## Academic Advising and Support Mountain Campus (UM-Missoula) Students

When students indicate a major on their application form, it becomes their initial declared major.

Advisor information and assignment is done through the student's major department. If the student is undeclared, is pursuing the following pre-health professions - Pre-Medical Sciences, Pre-Nursing, Pre-Physical Therapy - or is an undergraduate Non-degree seeking student, they are assigned to a professional advisor at the Undergraduate Advising Center (<http://www.umt.edu/undergrad-advising-center/>).

To change a major, a student must contact the advisor of the major they wish to declare or their current major's advisor.

Students with academic advising questions or concerns can find their assigned academic advisor in GrizPortal or Navigate, or use the advising directory (<https://www.umt.edu/undergrad-advising-center/advisingdirectory.php>) to locate advising contacts by major.

Students may also contact the Undergraduate Advising Center (<http://www.umt.edu/undergrad-advising-center/>):

Aber Hall 4th Floor

Phone: (406) 243-2835

Email: [OfficeForStudentSuccess@umontana.edu](mailto:OfficeForStudentSuccess@umontana.edu)

## Missoula College Students

Students are assigned an academic advisor in their major program upon acceptance to the Missoula College. For a listing of Missoula College academic advisors, please see the Missoula College Advising Directory

(<https://www.umt.edu/missoula-college-academic-advising-center/advising/who.php>).

Academic programs are identified by the major the student declared on their application for admission or by an official change of major communicated to the Registrar's Office by the program advisor.

For questions regarding assigned advisors or to change advisors, students can contact the Missoula College Academic Advising Center (<https://www.umt.edu/missoula-college-academic-advising-center/>):

Missoula College UM, Room 202

Phone: (406) 243-7925

Email: [academicadvisingcenter@umontana.edu](mailto:academicadvisingcenter@umontana.edu)

## Academic Support Services

Tutoring programs are available to all students through the Office for Student Success ([http://www.umt.edu/oss/for\\_students/tutoring.php](http://www.umt.edu/oss/for_students/tutoring.php)). Study Jam (<https://www.umt.edu/study-jam/>) provides early evening group study tables for selected courses (e.g., Chemistry, Biology, Physics, Spanish, Economics, and Statistics). The Writing and Public Speaking Center (<http://www.umt.edu/writingcenter/>) supports students in becoming more effective writers and provides tutoring at several locations across campus. The Math Learning Center (<https://www.umt.edu/math/undergraduate/all-students/free-tutoring.php>) provides tutoring in all developmental and 100-level math courses. Missoula College students may receive tutoring in math, writing and a variety of other subjects through the Learning Center. The Curry Health Center Counseling Center (<https://www.umt.edu/curry-health-center/counseling/>) and Curry Health Wellness Team offers workshops on a variety of topics designed to enhance student academic performance.

## TRIO Student Support Services (SSS)

TRIO SSS (<https://www.umt.edu/triosss/>) is a federally funded program offering support services to students who are first-generation (neither parent or guardian completed a four-year degree prior to the student's 18th birthday), low-income or receiving a Pell grant, or a student with disabilities. TRIO's mission is to provide all-around support such as advising, study skills class, career and college success class, peer mentoring, tutoring, book loan program, and more. See eligibility requirements and the application here (<https://www.umt.edu/triosss/eligibility-application/default.php>).

For more information, visit TRIO SSS at Aber Hall, 3rd Floor, call 406-243-5032, or visit the TRIO website (<http://www.umt.edu/triosss/>).

## Office for Disability Equity

The Office for Disability Equity (ODE) is the campus resource for disability-related information. ODE provides consultation, training, and academic services to advance accessibility and inclusion by taking an intersectional approach to disability. ODE facilitates access and accommodations for students connected with the office. For details and to connect with ODE, visit the ODE website (<http://www.umt.edu/disability/>), email at [ode@umontana.edu](mailto:ode@umontana.edu), or call 406-243-2243.

## Montana 10

Montana 10 is a Montana University System scholarship and program at the University of Montana and Missoula College. The program offers academic, social, and financial supports designed to help students succeed in college.

Students who become Montana 10 Scholars will be part of a unique group of students across Montana leading the way in a new way of doing college—a kind of college where students have the financial support they need, a community that knows them and supports them as individuals, and the specialized academic support that will help them to achieve their education goals and successfully launch their careers.

## Missoula College Learning Center

The Missoula College Learning Center (<https://www.umt.edu/missoula-college-learning-center/>) offers a variety of services to facilitate students' academic success. The Learning Center (LC) hosts tutoring for writing, math, accounting, computers, anatomy, and other subjects. Skills assessments, accommodated test services and make-up testing are also offered. Students can receive help with various online student services such as email, online labs, and GrizPortal. For information related to these services, contact the Learning Center at 406-243-7826 or [MCLearningCenter@mso.umt.edu](mailto:MCLearningCenter@mso.umt.edu), or visit the Learning Center website. (<http://mc.umt.edu/learning-center/>)

## Career Support Services

Career Coaches and Advisors provide support in major/career exploration to help students identify how to align their interests with career goals, guidance on navigating an effective job search, and application support for graduate programs, research, and employment opportunities. Career Coaches/Advisors help students connect with experiential learning opportunities locally and globally, such as domestic and international internships, volunteering, undergraduate research, and National Student Exchange.

- College of Business Career Development Program (<https://www.umt.edu/business-career-development/default.php>)
- College of Humanities and Sciences Career Planning Center (<https://www.umt.edu/humanities-sciences/career-planning-center/default.php>)
- Experiential Learning and Career Success (ELCS) (<https://www.umt.edu/experiential-learning-career-success/>)

## Office for Student Success

The Office for Student Success (<http://www.umt.edu/oss/>) (OSS) helps students to meet three goals:

1. Transition smoothly to college
2. Remain enrolled and progress in a program of study
3. Graduate in a timely manner

We do this by supporting students directly and by collaborating with academic departments and university offices to provide programs and services that support students' academic growth and personal development.

Administratively situated under the Vice Provost for Student Success, our programs guide students in clarifying academic goals and exploring majors. As the hub of academic support services on campus, we are a student's partner in academic success. OSS also coordinates several campus-wide efforts to encourage high impact learning opportunities. These efforts include supporting and promoting student goals toward degree completion and developing proactive retention interventions that foster student success.



The programs and services listed below are administratively situated within OSS. The main OSS reception area is located on the 4th floor of Aber Hall.

## Undergraduate Advising Center

The Undergraduate Advising Center (<http://umt.edu/uac/>) (UAC) is an academic support unit within the Office for Student Success (OSS). Located in Aber Hall on the 4th floor, the UAC is the academic advising home for all Undeclared, Pre-Nursing, undergraduate non-degree, and first-year Pre-Medical Sciences and Pre-Physical Therapy students whose primary majors are Undeclared. The UAC's Pre-Health Professions Advising website (<https://www.umt.edu/undergrad-advising-center/pre-health-professions-advising/default.php>) provides helpful information for students interested in pursuing a career in the health professions. The UAC houses the Exploratory Studies Program (<https://www.umt.edu/exploratory-studies-program/>) and the Four Bear Four Year Graduation Plan Program (<https://www.umt.edu/oss-four-bear/>).

The UAC also provides assistance to students campus-wide regarding general education requirements, registration support, major identification and declaration, academic petitions, and graduation applications. The UAC strives to connect students to beneficial campus services and resources, in addition to co-curricular opportunities available at UM and in the Missoula community.

Collaboration with our campus partners is a core strength of the UAC and OSS. The UAC and OSS collectively serve as the hub of campus advising services, acting as a central resource for faculty and department-based advisors, and working collaboratively with recruitment, orientation, and retention-based programs and services on campus.

## The Writing and Public Speaking Center

The Writing and Public Speaking Center (<http://umt.edu/writingcenter/>) supports University of Montana students, alumni, faculty, and staff as they become more versatile, deliberate, and effective communicators. We provide a respectful, interdisciplinary, collaborative and safe learning environment for all members of our community to grow as they work on a wide variety of academic, professional, and creative communication tasks.

Our administrative offices are on the third floor of Aber Hall, but our in-person tutoring takes place primarily at our tutoring center in the Mansfield Library (room 322). During the academic year we offer drop-in hours twice-weekly at the Branch Center (<https://www.umt.edu/uc/branchcenter/>) and the Payne Family Native American Center (<https://www.umt.edu/native-american-studies/tpfnac.php>), as well as scheduled appointment hours at the Learning Center at Missoula College (<https://www.umt.edu/missoula-college-learning-center/>). With all scheduled appointments, students have the option to attend online.

## Financial Education Program

The Financial Education Program (<https://www.umt.edu/financial-education/>) (FEP) empowers the UM community and beyond to make informed financial choices and to take action to improve present and long-term financial well-being.

The FEP serves current UM, Missoula College, and Bitterroot College students, prospective students, employees, and alumni. We provide free workshops and one-on-one appointments to help students finance higher education. We promote student success by assisting with critical areas of student financial wellness, including increasing personal finance

and budgeting skills, understanding the FAFSA and maintaining federal student aid eligibility, navigating loan repayment, and exploring student loan forgiveness options.

The FEP is located on the 4th floor of Aber Hall.

## First Year Experience

This First-Year Experience workshop (COLS 194: You at UM: Curiosity and Life Design) teaches the research-based skills and mindsets of Design Thinking (innovative problem-solving strategies) and how to apply this toolkit to search for clear academic, personal, and career goals. Students develop failure resilient and exploratory mindsets and ask probing questions: Why am I here? Who and what do I want to be? Where am I going?

Students work with each other, peer educators and instructional faculty to understand campus resources and apply services to individualize situations. Design Thinking is rooted in the idea that life is messy and non-linear, but can be better designed with the right tools and attitude.

The COLS 194 FYE program supports a maximum of 220 first semester students and provides a leadership opportunity for a maximum of 22 upper division peer educators through a 10-week for-credit academic workshop in the fall focused on academic pathways, meta-majors, and navigating the UM campus. Students utilize design thinking principles to consider and design their trajectories at UM and how they might integrate extracurricular programming and opportunities into degree attainment and career readiness.

## GEAR UP First Year Services Program

Gaining Early Awareness and Readiness for Undergraduate Programs (GEAR UP) provides free services, resources, and assistance to students and their families to help them successful transition from high school to college. The U.S. Department of Education funds GEAR UP to provide support to students and schools to increase students' college and career readiness through academic preparedness, postsecondary planning, and financial aid knowledge so that they may succeed in their higher education endeavors.

The GEAR UP First Year Services Program (<https://www.umt.edu/gear-up/default.php>) collaborates closely with various student support units across campus to support students' well-being and academic success throughout their first year of study and beyond. GEAR UP First Year Services is located on the 3rd floor of Aber Hall.

## KPCN: The Peer Connection Network

KPCN: The Peer Connection Network (<https://www.umt.edu/kpcn/>) is a nationally recognized, student multimedia production team. Founded in 2010, KPCN strives to provide a visually engaging, articulate form of communication between the campus community. Collaboration between students of several different majors provides a dynamic group adamant about increasing the success rate and overall UM experience of their fellow students.

## Math Learning Center

Located in the basement of the Math Building, tutors at the Math Learning Center (<https://www.umt.edu/math/undergraduate/all-students/free-tutoring.php>) help with a wide range of courses, including developmental studies, Contemporary Math, College Algebra,



Trigonometry, Calculus 1 and 2, Probability, Statistics, and Math for Elementary Teachers.

## Study Jam Group Tutoring

Study Jam (<https://www.umt.edu/study-jam/default.php>) group tutoring supports undergraduate students' progress toward degree completion through no-cost-to-students, peer-led, group tutoring.

Study Jam is a key part of the OSS tutoring and placement success network. Faculty-recommended tutors work with students enrolled in 43 sentinel courses in 11 academic disciplines. In an open environment for students of all backgrounds and academic abilities, students partner with their peers to expand learning.

## TRIO Student Support Services

TRIO Student Support Services (<https://www.umt.edu/triosss/default.php>) is a federally-funded TRIO grant program that has been serving University of Montana students since 1976. Each year, UM's TRIO SSS Program assists 375 students in accordance with the U.S. Department of Education's guidelines. All participants must meet the qualifying criteria of being first generation, income eligible, or having a documented physical or learning disability.

TRIO staff provide comprehensive planning and support to program participants in academic, financial, and personal areas as students' progress to graduation. Students participate in TRIO SSS throughout their enrollment at UM. TRIO SSS is located on the 3rd floor of Aber Hall.

## TRIO Upward Bound

TRIO Upward Bound (<https://www.umt.edu/trio-upward-bound/>) is funded by the U.S. Department of Education to provide the requisite academic skills and motivation that qualifying students will need for success in post-secondary education. TRIO Upward Bound, located on the 3rd floor of Aber Hall, has been housed on the UM campus since it was first awarded funding in 1966.

Throughout the school year, TRIO Upward Bound offers after school tutoring in each of our target high schools, volunteer opportunities, monthly workshops in topics related to high school success and post-secondary enrollment, and tours of area colleges during fall or spring breaks. The program is currently funded to serve 77 students who attend the following high schools: Big Sky, Hellgate, and Sentinel (Missoula) and Browning and Heart Butte (Blackfeet Reservation). Summer programming comes in the form of our signature six-week residential program. During this program students live on campus, take courses to prepare them for the upcoming school year, and participate in a variety of fun activities.

# EXPENSES, SERVICES, ORGANIZATIONS

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## Expenses

### General

The student expense information provided in this catalog is based upon the rates for the 2025-26 academic year as submitted to and approved by The Montana Board of Regents of the Montana University System. The Board of Regents reserves the right to adjust fees at any time. Current information may be obtained by contacting Student Account Services.

Student Account Services

Aber Hall 5th Floor

32 Campus Drive

Missoula, Montana 59812

Phone: 406-243-2223

Website: Student Account Services website (<https://www.umt.edu/business-services/students/>)

### Paying the Registration Bill

A student's registration is not complete until it is "paid." Paying the registration bill confirms registration of the courses listed on the registration bill and the student's acceptance of the associated tuition and fee charges. **Even if financial aid and/or scholarships cover the full cost of the registration bill, all students are required to complete their registration by clicking the "Pay Registration Bill" button in GrizPortal. FAILURE TO PAY THE REGISTRATION BILL WILL RESULT IN THE CANCELLATION OF CLASSES FOR THE SEMESTER.** Please see the published payment deadlines on the Registrar's Calendar web page (<http://www.umt.edu/registrar/calendar.php>).

Foreign and Canadian checks are not accepted. Credit card payment is accepted using VISA and MasterCard. Payment may be completed electronically via the student's GrizPortal account. Payments can be made online via GrizPortal:

- E-check
- Credit or debit card

Payment may be mailed to:

University of Montana

Student Account Services

5th Floor Aber Hall

32 Campus Drive

Missoula, MT 59812

All payments received in the mail should include the student's UM ID number and must be received on or before the published payment deadlines which can be found at the Registrar's Calendar web page (<http://www.umt.edu/registrar/calendar.php>).

### Tuition and Mandatory Fee Schedules

The tuition and mandatory fee schedules are posted on the Business Services Tuition and Fees web page (<http://www.umt.edu/business-services/Students/>). Different fee schedules apply to each type of student:

- Undergraduate and Post-Baccalaureate,
- Missoula College,
- Graduate,
- Graduate TA/RA,
- Law Fall & Spring,
- WUE Undergraduate,
- Online Undergraduate and Post-Baccalaureate,
- Online Missoula College,
- Online Graduate.

The full schedule of fees and fee definitions are available at Business Services Tuition and Fees web page (<http://www.umt.edu/business-services/Students/>) or by calling Business Services at 406-243-2223. Students enrolled at 12 or more credits are assessed at the same rate. Students who are enrolled less than 12 credits are assessed per credit. Students enrolled for 6 credits or fewer have the option of paying an additional amount to cover the ASUM activity fee, campus recreation fee, health service fee, and athletic fee.

An online learning fee is assessed on all online courses to partially defray costs associated with courses delivered online over the World Wide Web. Online courses are assessed an additional fee of \$48.00 per credit. If a student is registered for all online classes, they have the option to request a change to a distance only student. Students enrolled in all online courses for a term are not assessed some of the mandatory fees that apply to students enrolled in face-to-face courses. The student needs to complete the Distance Only Change of Status form which can be found on the UM Online website ([http://umonline.umt.edu/distance\\_form.php](http://umonline.umt.edu/distance_form.php)).

Montana resident high school eligible students may enroll in Early to College courses through the UM-Missoula College campus. The tuition rate is 50% of the resident Missoula College two-year tuition rate. Mandatory and non-mandatory fees are not assessed except for applicable course fees. Early to College students are not eligible to elect campus services such as the student insurance, Campus Recreation Center, Athletic fee, AUSM fee, and Campus Health Service (may not be all-inclusive).

Audited courses are assessed at the same tuition and fees as courses taken for credit or no-credit.

### Delivery of Student Credit Balance Refunds

The University of Montana processes all student credit balance refunds. Refunds are delivered based on the option the student has selected as explained at the Business Services Refund web page (<http://www.umt.edu/business-services/Students/>). The student needs to select an option only once unless they change or close their bank account or wish to change their option. If the student does not select an option, a check will be sent to their current mailing address. Even if a student does not expect to receive refunds due to financial aid, it is still important to

select an option. For instance, a student may have a credit balance if classes are dropped or they withdraw within the first 15 class days, that would create a credit balance refund.

## Additional Course Fees

The Board of Regents may approve additional course fees at any time. Additional course fees frequently are assessed for selected courses in subjects such as: Accounting Technology, Art, Biology, Biochemistry, Building Maintenance Engineering, Business, Chemistry, Computer Technology, Culinary Arts, Curriculum and Instruction, Dance, Diesel Equipment Technology, Drama, Educational Leadership, Electronics Technology, Forestry, Geology, Health and Human Performance, Heavy Equipment Operation, Journalism, Legal Studies, Mathematics, Metals Processes, Microbiology, Military Science, Music, Nursing, Pharmacy, Physical Therapy, Resource Conservation, Respiratory Therapy, Science, Secretarial Technology, Small Engines, Surgical Technology, Truck, Welding, and Wildlife Biology. This listing may not be all-inclusive and does not preclude a specific fee from being assessed. The current report on Non-Mandatory Fees can be found on the Business Services Tuition and Fees web page (<http://www.umt.edu/business-services/Students/>).

Special fees are assessed for extended field trips in various departments.

- An Educational Service Fee is charged for the off-campus M.B.A. and M.P.A. programs.
- A fee is charged for cooperative education internships.
- Purchase of supplies, equipment, or tools may be required by certain programs.

Certain programs will also have an additional program tuition added based on the major in which a student is admitted. The programs listed may not be all inclusive and they are Foreign and Conservation Program, Law Program, Masters in Athletic Training Program, Medical Technology Internship Program, Pharmacy Program, Physical Therapy Program, Public Health Program, School of Business Program, Social Work Program and Wildlife Biology Program.

## Law School Fees

The proposed 2014-15 School of Law fees for 15 credits are approximately \$3,237 for autumn and \$3,212 for spring for an in-state student and \$11,175 for autumn and \$11,150 for spring for an out-of-state student. The Health Service fee is included. Health insurance coverage is available to students for an additional charge.

## Law Special Fees

All persons who apply for admission to the School of Law must pay an acceptance fee of \$300.00 (\$150.00 is refundable if written notice is received by the due date if student does not want to attend), which is applied toward payment of fees upon entering and attending the School of Law in the semester for which the application was made.

In addition to the above fees, Law School students must pay an additional \$145.00 per credit per semester. The amount is applied to instructional costs.

All law students are assessed a \$25.00 law activity fee during autumn. An additional Academic Facilities fee of \$50 per semester plus \$1.25 per credit hour is also assessed.

## School of Extended and Life Long Learning (SELL)

Fees, room and board costs for SELL summer programs, and fees for registration in SELL continuing education are contained in separate

publications. These publications can be obtained by contacting the School of Extended and Lifelong Learning and Summer Programs

- by phone at 406-243-2900;
- by mail at University of Montana-Missoula, Missoula, MT 59812; or
- by visiting the School for Extended and Lifelong Learning website (<http://www.umt.edu/sell/>).

## Refund Policy

### Refund for Dropped Classes

Students who have paid their registration bill may drop classes through the first fifteen days of the Fall and Spring semesters. Adjustments of the associated tuition & fees and financial aid will be made to their student account during that time. **Beginning with the sixteenth class day, there is no refund for classes dropped, and there is a \$10 fee for each class dropped.** Students who finalized with financial aid should always check with the Financial Aid Office and Business Services before dropping classes to make sure they fully understand the financial impacts of dropping classes as that may result in the student having to immediately repay grant aid they received or make them ineligible to receive aid that has not been disbursed yet.

### Refund for Withdrawal from the University

If a student decides to withdraw from classes or has ceased to attend classes after paying their registration bill, the student should contact the University of Montana Registrar's Office located on the sixth floor of Aber Hall, and complete an Official Withdrawal form to begin the official withdrawal process. This procedure will enable the University to prorate the tuition and fees assessed based upon the date of withdrawal. A percentage-based refund of tuition and fees does occur when a student officially withdraws before the first day of classes or within the first 15 class days of each term. Students ceasing to attend classes who do not complete an Official Withdrawal form and as a result do not receive any passing grades for the semester will be considered an unofficial withdrawal and will not receive any consideration for refund of tuition and fees.

*Students who desire to continue the Blue Cross Health Insurance must contact the Curry Health Center prior to withdrawal within the first 15 class days. Otherwise, the insurance premiums will automatically be refunded and coverage will be lost upon the date of their withdrawal.*

For students receiving federal financial aid, they must be attending classes to remain eligible for the federal financial aid they have received or could be eligible to receive. If a student drops courses, stops attending classes (Unofficial Withdrawal), never starts attending a class, or officially withdraws from the University of Montana by completing and submitting the Official Withdrawal form, the University may be required to return federal funds awarded to the student. **It is very important for students receiving federal financial aid to contact Business Services at (406) 243-2223 PRIOR to completing the official withdrawal process or if they are not going to continue to attend their classes.** If a student officially withdraws during the first fifteen days of class, the tuition and fees will be re-assessed for the semester based upon the official date of withdrawal. If a student does not complete the Official Withdrawal form and ceases attending and receives no passing grades for the semester the student is an Unofficial Withdrawal.

Students who withdraw from the University after paying their registration bill will receive pro-rated assessment of tuition and fees according to the following schedule. The Summer term is also subject to a pro-

rated assessment of tuition and fees based on the length of each of the sessions within a Summer term.

## Refund for Fall and Spring:

|                               | Before<br>Classes<br>Begin | 1st Week | 2nd Week | 3rd Week | 4th Week<br>or Later |
|-------------------------------|----------------------------|----------|----------|----------|----------------------|
| <b>Registration</b>           | none                       | none     | none     | none     | none                 |
| <b>Tuition/<br/>Fees</b>      | 100%                       | 90%      | 75%      | 50%      | none                 |
| <b>Blue Cross<br/>Ins. **</b> | 100%                       | 100%     | 100%     | 100%     | none                 |
| <b>Other Fees</b>             | varies                     | varies   | varies   | varies   | varies               |

Charges for room and board will be re-assessed on a pro-rated basis. During the final two weeks of the semester, room charges will not be re-assessed. Student who do not formally and completely withdraw are not eligible for a refund. The student will need to contact both the Residence Life Office located at 101 Turner Hall and UM Dining located in room 114 of the Lommasson Center.

The University of Montana will reassess the tuition and fees for students using the Deferred Payment Plan if the student officially withdraws during the first fifteen days of a semester. The student may still owe a balance to the University.

A student who has officially withdrawn from the term may petition for Hardship consideration if a student meets one of the following conditions or events:

- experiences a catastrophic or life threatening condition or event AFTER THE 15<sup>TH</sup> CLASS DAY of the semester that prevents the student from completing the term;
- has unexpectedly been called to Active Military Duty/Training and cannot complete the term; OR
- cannot complete the term because of an institutional caused circumstance or event.

Appropriate documentation is required to support the Hardship. Hardship Petitions will need to be filed within 30 days of the end of term for which the Hardship is being requested unless there are substantial mitigating circumstances preventing the timely submission of the Hardship Petition.

The Hardship Petition can be obtained by contacting Business Services at (406) 243-2223 during normal business hours, Monday – Friday, 8:00 a.m. – 5:00 p.m. and excluding office closures for holidays.

## Return of Title IV Funds (Federal Financial Aid)

The University of Montana Refund Policy exists for calculating the amount of the federal financial aid that is subject to return when a student officially or unofficially withdraws on or before the 60% point of the term for which the aid was or could have been disbursed. The federal "Return of Title IV Funds" formula dictates the amount of Federal Title IV aid that must be returned to the federal government by the University and the student. The federal formula is applicable to a student receiving Title IV Funds if that student officially or unofficially withdraws. The University of Montana is required to return the Title IV funds to the federal government, U.S. Department of Education, within 45 days of determining the student is no longer attending. A student's official or unofficial withdrawal date is determined by:

- the date the student began the institution's withdrawal process or officially notified the institution of intent to withdraw;

- the midpoint of the period for a student who leaves without notifying the institution (unofficial);
- or, the last date of attendance by the student at a documented academically related activity.

The federal formula requires a return of Title IV aid if the student received federal financial assistance in the form of a Federal Pell Grant, TEACH Grant, Iraq/Afghanistan Service Grant, Federal Supplemental Educational Opportunity Grant (SEOG), Federal Perkins Loan, Federal Direct Loan (subsidized or unsubsidized), or Federal Parent or Graduate PLUS loans for students who officially or unofficially withdraw on or before completing 60% of the semester. The percentage of Title IV aid to be returned is equal to the number of calendar days remaining in the semester (based on the official withdrawal date) divided by the number of calendar days in the semester (scheduled academic breaks of five consecutive days or more are excluded). After all Title IV aid return requirements have been satisfied, any credit balances on a student's account will be first applied to satisfy outstanding University tuition, fees, and institutional charges, then to any Grant overpayments and finally any remaining credit balances will then be refunded to the student.

*If you officially or unofficially withdraw from the University of Montana before completing 60% of the semester, you may have to repay any unearned financial aid funds that were already disbursed to you. A post-withdrawal disbursement may be made if a student shows eligibility for Title IV aid. Please contact staff in The University's Business Services, located in Griz Central or call 406-243-2223, if you have any questions about refund of tuition and fees or the calculation of the return of federal financial aid PRIOR TO WITHDRAWING OR CEASING TO ATTEND.*

## Distribution Priority for Return of Title IV Funds

1. Federal Unsubsidized Stafford Loan
2. Federal Subsidized Stafford Loan
3. Federal Perkins Loan
4. Federal Graduate PLUS Loan
5. Federal Parent PLUS Loan
6. Federal Pell Grant Program
7. Federal SEOG Program
8. Federal TEACH Grant
9. Federal Iraq/Afghanistan Service Grant
10. State, Private, or Institutional Aid
11. The Student

## Other Costs and Policies

### Late Registration

A student who does not complete registration, including payment of tuition & fees, by the seventh class day is assessed a late registration fee of \$80.00. An additional late registration fee is assessed on the 16th class day if the registration bill is not paid. After the fifteenth class day, a petition is required to register and, if approved, the total late registration fee of \$160.00 is assessed.

### Returned Checks

A charge of \$25.00 will be assessed on checks (paper or electronic) returned from the bank. Any paper or electronic check tendered in payment of registration fees and not honored by the bank upon which it is drawn may result in cancellation of a student's registration. If the student's registration is cancelled, the student will be required to re-

register and may be subject to the late registration fees in addition to the \$25.00 service charge.

## Fee Policy on Drop/Add

Students must pay for all courses for which they are enrolled upon assessment of their registration bill. However, within the first fifteen class days, they may drop or add courses. The courses for which students are enrolled on the fifteenth class day will determine any fee adjustments (see fee schedule) or financial aid adjustments. Beginning the sixteenth class day, courses dropped will not result in a reduction of fees but courses added that increase credit hour enrollment may result in additional tuition and fees charges. Payment is due within 10 days of the day courses are added.

***GrizPortal will not allow a student to drop all courses. Dropping all courses is considered a withdrawal from the University. Please refer to the Withdrawal Policy (p. 25) section in the catalog for information on how to withdraw and the associated Refund Policy.***

## Drop/Add Processing Fee

A \$10.00 processing fee will be charged for each course that is added or dropped after the fifteenth instructional day. See the summer class schedule (<http://www.umt.edu/registrar/calendar.php>) for summer session deadlines.

## Deferred Payment Plan

The University of Montana offers a payment plan to help students and their families pay their tuition, mandatory fees, and room and board. Eligibility is based on the following criteria:

- Making payments as scheduled.
- Existing credit history with the University.
- Full completion, approval and signing all required documents.

The plan provides for the payment of at least one fourth of the total fees along with a \$30.00 administrative charge at the time of the registration bill assessment.

The remaining three payments are due as follows:

Fall Term – October 1, November 1 and December 1

Spring Term – March 1, April 1 and May 1

If the first falls on a weekend or a holiday, the payment is due on the next business day. A \$15.50 fee will be assessed each time a payment is late.

Registration, tuition and mandatory fees less any Financial Aid may be deferred. Student insurance and non-mandatory/course fees may not be deferred. A \$15.00 fee will be assessed each time a payment is late.

Deferred Payment Plan (DPP) applications are to be submitted via GrizPortal. The instructions (at right) will lead you to the DPP application. Be prepared to fill out the necessary application forms including parent and spouse information and two references. Your application will be reviewed by Business Services within three (3) business days and you will be notified via your UM email on the status of your application.

The signing and adherence to the terms and conditions of a promissory note will be required. Any person who is receiving financial aid that fully covers their tuition, mandatory fees and room and board; who owes the University any fees, fines, loans or other charges; or who has previously been approved for the Deferred Payment Plan and failed to make timely

payments may be determined to be ineligible to use the Deferred Payment Plan.

This plan is not available for the summer session.

## Monthly Bill Statements

Monthly bill statements are mailed on accounts that do not have an active UM email. An electronic notification will be e-mailed to the student's official University of Montana e-mail account. It is the student's responsibility to check their mail and official University of Montana e-mail account for these statements and notices. Payments for billed amounts are due by the due date indicated on the statements and electronic message. Failure to make timely payments will result in an interest charge not to exceed ten percent (10%) per annum assessed on balances not paid in full by the following monthly billing. Payments can be made

1. online in GrizPortal (<https://cyberbear.umt.edu/>);
2. at the cashiers station located in Griz Central (2nd floor Lommasson Center); or
3. by mailing payments to

Student Accounts  
Business Services  
The University of Montana  
32 Campus Drive #2304  
Missoula, MT 59812-2304.

## Non Payment

A student who owes regular fees and charges including room and board or has an overdue debt owed to the University for any fees, fines, or other charges will not be able to register, secure any transcript or record, or access any University facilities or services until the full amount due has been paid or satisfactorily resolved with Business Services. Interest may be charged at the rate of ten percent (10%) per annum (.027% per day) on the balance due from the day after the due date until the full amount has been paid. student may also be subject to any attorney's fees or other costs or charges necessary for the collection of the amount owed may and this amount may be added to the balance due. The University of Montana also reserves the right to use the Montana State Department of Revenue to offset and receive any funds that may be refunded by the State of Montana to the student. The University of Montana reserves the right to refer unpaid accounts to third-party collection agents under contract with the University of Montana.

## Determination of In-State Fee Status

Please see the Residency Information website (<http://www.umt.edu/registrar/students/residencyinfo.php>).

## Costs of On-Campus Services Housing and Dining Services

Students living in UM Housing are required to contract for a meal plan with UM Dining. Room and board rates are the same for in-state and out-of-state students. Occupants may select any meal plan to obtain the number of meals preferred and choose from a variety of room options.

Students who are approved to move out of the residence halls and terminate their meal plan contract will receive a prorated refund based upon the days remaining in the semester less the cancellation fee. For more information and charges, see the UM Housing Office website



(<http://www.umt.edu/residencelife/>) and UM Dining website (<http://www.umt.edu/dining/>).

## Vehicle Registration Fee

All vehicles parking on campus must display current campus vehicle registration between the hours of 7:00 a.m. and 5:00 p.m. Monday through Friday year round. Students, staff or faculty may purchase window or hanger decals.

More information can be found at the UM Police parking web page (<http://www.umt.edu/police/Parking/>).

## Veterans' Benefits for Education Assistance Under Public Law 95-202 and Public Law 815

For Veteran information visit the UM Veterans website (<http://www.umt.edu/veterans/>).

## Financial Aid

The Financial Aid Office at the University of Montana administers federal, state, and institutional aid programs designed to help eligible students pay for their educational expenses. Amounts of awards vary and depend upon the student's financial need as well as the amount of funds available for distribution.

To apply for financial aid, students and parents of dependent students must file the Free Application for Federal Student Aid (FAFSA) each year. The FAFSA can be filed electronically at <https://studentaid.gov/h/apply-for-aid/fafsa> (<https://nam04.safelinks.protection.outlook.com/?url=https%3A%2F%2Fstudentaid.gov%2Fh%2Fapply-for-aid%2Ffafsa&data=05%7C02%7Ctroy.morgan%40mso.umt.edu%7C0f5258ca3b9f43a14e5908ddccbcf376%7C68407ce503da49ffaf0a724be4d37c0%7C0%7C0%7C638891834091677736%7CUnknown%7CTWFpbGZsb3d8eyJFbXB0eU1hcGkiOnRydWUsIlYiOiIlwLjAuMDAwMCIsIl9kaW42ImkiOiJhbnR1bCIsIl9ldUljoyfQ%3D%3D%7C0%7C%7C%7C%7C&sdata=wXuWr27W9mQXeuGSSpPVRphRh4QBBNcS5rskrvKmnE%3D&reserved=0>).

To be eligible for financial aid, an individual must be a citizen or permanent resident of the United States and have applied for admission to the University as a degree-seeking student.

Students applying for financial assistance are considered for all aid programs for which they are eligible. Assistance is offered in the form of grants, scholarships, tuition waivers, student and parent loans, and work opportunities.

Publications describing the different programs, eligibility criteria, satisfactory progress, and application procedures are available via the UM Financial Aid website (<https://www.umt.edu/finaid/>), at the Financial Aid Office, Aber Hall 5th Floor, 32 Campus Drive, Missoula, MT 59812, or telephone at (406) 243-5373.

Both undergraduate and graduate students may apply for aid. Assistance to graduate students is generally limited to long-term loans and work opportunities. Information on graduate fellowships, scholarships, and assistantships may be obtained from The Graduate School.

Although student expenses will vary according to differences in courses of study, residency status, housing arrangements, transportation costs, and other factors, the table of estimated expenses may be used to determine the projected cost of education for a school year (two

semesters). In estimating costs, between-semester expenses should not be overlooked.

Please remember that policies and procedures governing financial assistance at UM are subject to change at any time, without prior notification or publication, due to changes in university, state, and/or federal guidelines and regulations.

The Financial Aid Office is open Monday through Friday from 8:00 AM to 5:00 PM or as otherwise posted.

## Organizations

### Alumni Association

The University of Montana Alumni Association was founded in 1901 by Eloise Knowles and originally served 24 alumni. Today, the serve thousands of alumni and friends across the globe, helping them stay connected to the University of Montana. They support events like Homecoming and class reunions, manage communications including the Alumni Insider Newsletter and the Montanan magazine, and facilitate opportunities such as career services, alumni mentoring and travel. They fund scholarships for students and assist the University's legislative advocacy efforts through board-driven volunteer efforts to gain support for higher education throughout the state.

The University of Montana Alumni Association is committed to providing meaningful programming and services for our alumni wherever they are. They are a lifelong connection back to the University of Montana. For more information, refer to the Alumni website (<https://www.grizalum.org/>).

### Associated Students of the University of Montana (ASUM)

The Associated Students of the University of Montana enhances the student experience through providing services, advocating for the rights of all University of Montana students as a diverse, unified body, and models trust and transparency among students, faculty, and staff. Additional information about ASUM activities and services can be found on the ASUM website (<https://www.umt.edu/asum/>).

### KBGA Radio

KBGA College Radio, 89.9 FM, is the student-run, college radio station for The University of Montana. Also available streaming online on the KBGA Radio website (<http://kbga.org/>), they provide a diverse format of music and talk programming 24 hours a day. They are a non-commercial, educational station, so everyone is welcome to become a DJ. For more information, see the KBGA Radio website (<http://kbga.org/>).

### Montana Kaimin

The Montana Kaimin (<https://www.montanakaimin.com/#http://www.montanakaimin.com>) is the student-run daily of the University of Montana dedicated to telling the stories of the campus and its students. The Kaimin publishes daily online and, as of 2015, in a weekly printed edition that focuses on feature writing.

### Fraternities and Sororities

Fraternities and sororities are an established tradition on the University of Montana campus, dating back over 110 years. Our community is home to four fraternities and three Panhellenic sororities. These organizations

strive to develop leadership skills, social responsibility, and academic excellence in each of our members. Additional information can be found on the Fraternity and Sorority Involvement website (<https://www.umt.edu/fsi/>).

## Maureen and Mike Mansfield Center

The Maureen and Mike Mansfield Center (<https://www.umt.edu/mansfield/>) was established in 1986 to pay tribute to Maureen and Mike Mansfield and to recognize their important contributions to U.S. Asian relations and public policy. The Center is an academic unit within the University of Montana and receives core funding from an endowment managed by the Maureen and Mike Mansfield Foundation. Mansfield Center faculty offer classroom instruction, conduct research, provide training for Asian and U.S. government personnel, and organize various types of conferences, all with a focus on East Asia. The Center faculty collaborate with the University's Asian studies programs and several other campus units.

The Mansfield Center's Ethics and Public Affairs Program (formerly known as the Center for Ethics) focuses upon the relationship of values to public institutions and affairs. Its courses, seminars, lectures, conferences, and internships examine the role that ethical values can and should play in public life, moral quandaries faced by those who govern philosophical and practical dimensions of political ethics, and issues of leadership and character in public service.

## Peace Corps

The Peace Corps is a service opportunity for motivated changemakers to immerse themselves in a community abroad, working side by side with local leaders to tackle the most pressing challenges of our generation. It was established in March 1961 by an executive order (10924) of President John F. Kennedy and authorized by Congress the following September by the Peace Corps Act.

The Peace Corps' mission is to assist developing countries by providing skilled workers in fields such as education, health, entrepreneurship, women's empowerment, and community development. Peace Corps volunteers must be U.S. citizens or on a pathway to citizenship and at least 18 years of age. Volunteers typically have a college degree (making this a perfect gap year opportunity) and are assigned to specific projects in certain countries based on their qualifications and experience. Following three months of technical training, Peace Corps members are expected to serve at least two years in their host country, after which they may request an extension of service if desired. Volunteers are strongly encouraged to respect local customs, learn the prevailing language, and live in comparable conditions.

More information can be found on the UM Peace Corp website (<https://www.umt.edu/peace-corps/>).

## Services

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- Student Services (p. 63)

## Community Services

### Bureau of Business and Economic Research

The Bureau of Business and Economic Research is a research department within the College of Business at the University of Montana, Missoula. They produce a variety of economic and industry data including annual economic forecasts for the United States as well as Montana, its industries, and counties. More information can be found on the Bureau of Business and Economic Research website (<https://www.bber.umt.edu/>).

### Montana Cooperative Wildlife Research Unit

The Cooperative Research Unit is a unique collaborative relationship between States, Universities, the Federal government and a non-profit organization. Coop Units conduct research on renewable natural resource questions, participate in the education of graduate students destined to join the natural resource profession, provide technical assistance and consultation to parties who have interests in natural resource issues, and provide various forms of continuing education for natural resource professionals. More information can be found on the Montana Cooperative Wildlife Research Unit website (<https://www.umt.edu/coop-unit/>).

### Montana Campus Compact

Established in 1993, Montana Campus Compact aims to integrate civic work and learning into the curriculum and operations of its diverse network of colleges and universities, so students graduate with the determination and capacity to contribute to the public good throughout their lives. They also work to make higher education institutions fully engaged with their communities, working together to educate citizens, solve problems, and build a strong democracy. More information is available on the Montana Campus Compact website (<https://mtcompact.org/>).

### The Clinical Psychology Center

The CPC is a training clinic, staffed by doctoral students in Clinical Psychology and School Psychology.

Located on the University of Montana campus, the CPC serves the entire Missoula community. Services are provided by student clinicians under direct supervision of senior clinicians from the Department of Psychology faculty. Student clinicians carry small caseloads (typically 3-5 clients) so that they can be closely supervised and provide optimal care. The clinic facilities include private counseling/consultation rooms, observation rooms, a group services room, and seminar rooms. More information can be found on the Clinical Psychology Center website (<http://hs.umt.edu/psychology/>).

### The University of Montana Physical Therapy Clinic

The University of Montana Physical Therapy Clinic (UMPT Clinic) provides quality, patient-centered physical therapy care while serving as a teaching facility for graduate physical therapy students. Care is provided by a licensed physical therapist, along with graduate physical therapy interns.

More information can be found on the UMPT Clinic website (<https://www.umt.edu/physical-therapy-clinic/>).

## Student Services

### The Maureen and Mike Mansfield Library

The Maureen and Mike Mansfield Library (<https://www.lib.umt.edu/>) at the University of Montana provides an array of information resources and services in support of the teaching, learning, and research programs of the University. These resources include print collections and access to networked research databases, electronic journals e-books, media materials, and a web-based integrated library cataloging and discovery platform. Library services include in-depth research and reference assistance, an extensive instruction program integrated into the university curriculum, and full-service computing and media facilities. Extensive services for online education students and faculty are available to provide an equitable educational experience.

The Maureen and Mike Mansfield Library comprises the heart of UM's library system. Collections exceed 1.75 million volumes, more than 800,000 electronic books, access to over 75,000 print and electronic journals, an expanding array of electronic databases, over 72,000 media, a federal government depository collection and an Archives and Special Collections. These resources are supplemented by an active interlibrary loan service through which items from other libraries can be loaned to UM students and faculty. The Mansfield Library is open seven days a week for 111 hours per week during the academic semesters.

Over 130 computers available for student use and wireless access throughout the building provides fast and stable internet connectivity in support of access to electronic resources and access to other networked information. Three state-of-the-art instructional classrooms underscore the goal of the library as a learning library in which students learn how to access and evaluate information in support of their advancing academic careers. Study carrels, group study rooms, study tables, and soft seating on all floors of the library provide a variety of study environments.

The Mansfield Library at Missoula College UM (located on the East Campus) supports its curricular programs. Students and faculty at both campuses have access to all library resources and services. Students at Bitterroot College UM, in Hamilton, also have full access to the Mansfield Library's resources and services. The library collections at the affiliated UM campuses are located in Butte at Montana Tech, and Highlands College of Montana Tech; in Dillon at The Carson Library of the University of Montana-Western; and in Helena at Helena College the University of Montana.

## UM Housing

UM Housing provides safe, clean, healthy, and affordable living and learning facilities that foster an inclusive community living environment for students, staff, faculty, and guests. Services provided in these facilities support and nurture educational experiences and personal development at the University of Montana. Additional information about housing at the University of Montana can be found on the UM Housing website (<https://www.umt.edu/housing/>).

## UM Campus Dining

Information about UM Campus Dining services can be found on the UM Campus Dining website (<https://www.umt.edu/dining/default.php>).

## Experiential Learning and Career Success (ELCS)

Experiential Learning & Career Success (ELCS) is dedicated to supporting students from their first day on campus to their first day on the job and beyond. ELCS helps students tie their unique passion, personality, potential, and academic plans together to connect experiences, grow, and learn as a whole person. UM's signature career readiness program, ElevateU, is built to enhance your career readiness and marketability so students graduate with a degree in hand, broadly educated and specifically skilled. Additional information can be found on the ELCS website (<https://www.umt.edu/experiential-learning-career-success/>).

## Testing Services

Testing Services at the University of Montana provides academic and professional testing opportunities for the purpose of enhancing educational, career and professional goals. Testing Services adheres to the National College Testing Association Professional Standards and Guidelines. Additional information can be found on the Testing Services website (<https://www.umt.edu/testing-services/>).

## Office for Disability Equity

Students with disabilities can expect access at the University of Montana-Missoula. Wherever possible, the University exceeds mere compliance with the civil rights laws of Section 504 of the Rehabilitation Act, the Americans with Disabilities Act, and the Montana Human Rights Act. The University's programs are readily accessible to and usable by people with disabilities. The campus assures Program access is delivered to the maximum extent feasible and in the most integrated manner possible.

The Office for Disability Equity (ODE), a student affairs office, leads the University's program access efforts for students. ODE provides and coordinates reasonable modifications and advocates for an accessible and hospitable learning environment. We encourage self-determination and self-reliance by students with disabilities. Examples of services include priority registration, physical accessibility arrangements, academic adjustments, auxiliary aids (readers, scribes, sign language interpreters, etc.), alternative testing, conversion of print textbooks to e-text, assistive technology assistance, and other reasonable modifications. To achieve equal access, ODE vigorously pursues the removal of informational, physical, and attitudinal barriers to all University programs.

Students with disabilities should plan ahead and get in touch with ODE prior to arriving on campus. For additional information, contact ODE in Aber Hall, Level 1, by phone at (406) 243-2243 (Voice/Text), by video phone at (406) 203-0591, or by email at [ode@umontana.edu](mailto:ode@umontana.edu). Please visit the Office for Disability Equity website (<https://www.umt.edu/disability/default.php>) to find details on our services.

## Military and Veteran Services Office (MVSO)

The University of Montana Military and Veteran Services Office (MVSO) is located on the Southeast corner of the Mountain Campus at 1000 E. Beckwith Avenue, where Beckwith Ave. becomes Campus Drive. The

Military and Veteran Services Office assists all military-affiliated students with education benefits and resources necessary to succeed at UM, including those attending the Missoula College.

The Military and Veteran Services Office complies with the Veterans Benefits and Transition Act of 2018 (38 USC 3679(e)). The Act states that we will not impose any penalty, including the assessment of late fees, the denial of access to classes, libraries, or other institutional facilities, or the requirement that a covered individual borrow additional funds, on any covered individual because of the individual's inability to meet his or her financial obligations to the institution due to the delayed disbursement funding from VA under chapter 31 or 33.

Contact information:

UM VETS Office  
1000 E. Beckwith Avenue  
mvso@mso.umt.edu  
Montana Military and Veteran Services Office website (<https://www.umt.edu/veterans/>)  
406-243-2744 Phone  
406-243-5444 Fax

## International Students and Scholars

The office of International Students and Scholars (ISS) assumes responsibility for the general welfare of foreign students at the University of Montana from admission to gradation and practical training. It provides direct support services, consultation, and liaison. The office assists in the reception and orientation of foreign students and helps with their integration into the University and community. It interprets immigration regulations and laws and assists students in maintaining legal status and obtaining benefits related to their visa status. Staff members provide advising for academic and personal concerns, cultural adjustment, financial problems, and other concerns that arise.

The staff works with the International Student Association and other student groups, as well as the Missoula International Friendship Program to sponsor cultural activities, a speaker's bureau, a community hospitality program for students, leadership opportunities for students, and the annual International Culture and Food Festival. ISS coordinates the UM Global Partner Program, a campus peer-mentoring program. It offers educational fields trips; winter and summer break activities, as well as initial and on-going orientation and educational programs on relevant topics. ISS manages the campus' International House, an activity center for inter-cultural events.

International Students and Scholars works closely with other service and advising offices on campus to optimize those services and their visibility to foreign students.

International Students and Scholars prepares certificates or petitions for the Exchange visitor J-1 visa and advises foreign scholars who need to change or extend their visa status, travel temporarily out of the United States or bring dependents to this country. Finally, the office serves as liaison to federal agencies dealing with foreign student and scholar concerns, such as the US Citizenship and Immigration Service, Department of Labor, Department of State, Internal Revenue Service and Social Security Administration. For more information visit the International Student and Scholars website (<http://www.umt.edu/global-engagement/international-student-scholars/default.php>) or contact us at [global.engagement@umontana.edu](mailto:global.engagement@umontana.edu).

## Global Engagement Office

The Global Engagement Office promotes and provides international life-changing experiences and related educational opportunities, serving as a resource that contributes to the culture of a globally-minded community through its several different sections. The GEO is responsible for the recruitment of all international students to UM through a variety of programs including Study Abroad, Partner Programs, English Language Institute, Undergraduate Pathway (UP) Program, and Full Admissions. The GEO works with its partners to receive sponsored international students and administer their programs. The English Language Institute (ELI) department of the GEO serves international students who wish to improve their English language and academic skills in order to pursue studies at UM or another higher education institution. The GEO also offers students the exciting opportunity to study abroad in one of over 50 countries through three different UM sponsored programs: Faculty-Directed Programs, Partner Universities, and International Student Exchange Programs (ISEP). Global Gateway, an innovative educational service portal within the GEO, develops partnerships with the UM campus, local schools, and community organizations that promote cultural awareness and sharing foreign cultures, traditions, and customs. For additional information, visit GEO in the International Center, call (406) 243-2288, email [global.engagement@umontana.edu](mailto:global.engagement@umontana.edu).

## English Language Institute

UM offers an intensive English program through the English Language Institute. Students are enrolled in 20 hours of class each week. ELI's curriculum addresses the needs of international students whose scores are below UM language requirement scores of 525 ITP/ 70iBT. ELI courses also address the needs of students who want to raise their English language proficiency in order to gain admission to a university or college where English is the language of instruction. Through this program, ELI students can begin their university studies at UM in several ways. They can successfully participate in the ELI/UM Bridge Program, show their academic readiness through ELI coursework, or meet the TOEFL requirements. For more information, visit the English Language Institute website (<http://www.umt.edu/global-engagement/>).

## Curry Health Center

Curry Health Center provides affordable, accessible, high quality, student-centered health services to University of Montana students to enhance student learning, promote personal health and development and teach important life skills.

The Curry Health Fee is paid at registration by students who enroll for seven credits or more (excluding distance only students). Students taking less than seven credits per semester may elect to pay the Health Fee at any time during the semester. The Curry Health Center provides a wide range of primary health care and health promotion services at discounted rates well below what students would generally find in the Missoula community.

Services in Wellness and Student Advocacy Resource Center (SARC) are available to all students. Services in Medical, Counseling and Dental are available only to students who pay the Curry Health Fee.

Additional information about Curry Health Center services can be found on the Curry Health Center website (<https://www.umt.edu/curry-health-center/>).



## UM Police Department

The University of Montana Police Department (UMPD) serves and protects the students, staff, faculty, and all people and property within the University of Montana campus and properties.

Both Police Dispatchers and Officers are on duty 24 hours a day, every day of the year. Our Police Officers and Dispatchers are certified and trained by the Montana Law Enforcement Academy (MLEA). UM Police Officers have the exclusive responsibility to act upon law-enforcement matters and perform police functions for the UM Main Campus and the Missoula College. UM Police Officers investigate all crimes and enforce federal, state, and local laws as well as University of Montana policies.

All sworn UMPD officers have successfully completed training at the Montana Law Enforcement Academy (MLEA) or equivalent training recognized by the Montana Peace Officer Standards and Training Council. Our officers have the same authority and powers of arrest as any officer in the state. In addition to the MLEA training, UMPD officers receive additional training throughout the year.

For additional information, see the UM Police website (<https://www.umt.edu/police/>).

## UM Transportation and Parking Services

University of Montana Transportation and Parking Services (TAPS) is comprised of the UM Parking Department and ASUM Transportation. Information can be found on the UM Transportation and Parking Services website (<https://www.umt.edu/transportation-parking-services/about/default.php>).

## University Center

The University Center enriches campus life by providing student-focused opportunities, programs, services, and space.

The UC is your student union. It is a place for you to study, discover diversity, enjoy entertainment and feel at home away from home. Additional information can be found on the University Center website (<https://www.umt.edu/uc/>).

## Sports and Recreation

Organized sports and recreational activities are an important part of academic and leisure life at the University.

### Intercollegiate Athletics

The University of Montana-Missoula is a Division I member of the National Collegiate Athletic Association and the Big Sky Conference. The athletic program consists of 15 varsity teams. The men's program includes competition in basketball, cross country, football (Football Championship Subdivision), indoor and outdoor track, and tennis. The women's program offers competition in basketball, cross country, tennis, indoor and outdoor track, volleyball, golf, softball, and soccer. Athletic scholarships are offered in all sports. Additional information can be found on the Athletics website (<https://www.umt.edu/athletics/>).

### Campus Recreation

Campus Recreation enriches the academic experiences of University of Montana students and provides all members with exceptional health, fitness and recreational opportunities. In addition to helpful staff ([https://www.umt.edu/crec/\\_archive/directory/default.php](https://www.umt.edu/crec/_archive/directory/default.php)) and state-of-the-art facilities (<https://www.umt.edu/crec/about/facilities/default.php>), Campus Recreation offers services, events and innovative programs.

Program areas include aquatics, fitness programs, golf, intramural sports, outdoor programs and youth camps. Extending positive, lasting impacts to the broader community, Campus Recreation also co-hosts collaborative events and provides public access to the Grizzly Pool, University of Montana Golf Course and Youth Camps. Information can be found on the UM Campus Recreation website (<https://www.umt.edu/crec/>).



## AFFILIATED CAMPUSES

- Helena College University of Montana (p. 66)
- Montana Technological University (p. 66)
- The University of Montana Western (p. 66)

### Helena College University of Montana

Helena College offers two-year programs in business, trades, technical, and health occupations designed to meet the state's business and industry needs for technologically-skilled workers. All of the curricula are industry-approved and emphasize learning in a hands-on environment. In addition, the college offers an Associate of Science degree and Associate of Arts degree designed to transfer to four-year institutions. The college, founded in 1939, is fully accredited by the Northwest Commission on Colleges and Universities (NWCCU), approved by the Montana State Board of Nursing, certified and licensed by the Federal Aviation Administration, and certified by the National Institute for Automotive Service Excellence.

Helena College students take a full complement of courses in mathematics, communications, computer literacy, and career development. Located in Helena, Montana's beautiful capitol city, Helena College offers its programs in modern classrooms, shops, and labs, both near the Capitol building and at the Helena airport. For more information, see the Helen College website (<https://helenacollege.edu/>).

### Montana Technological University

Originally chartered as The Montana State School of Mines, Montana Technological University (Montana Tech) has evolved into a dynamic institution which connects focused students to a network of people, opportunities, and experiences that empower them to change the world.

Along with world-class offerings in resource engineering, Montana Tech offers programs in other areas of engineering, the sciences, mathematics, computation, health, business. We offer certificate programs, associate, bachelor, and master's degrees along with doctoral degrees in Materials Science and Earth Science & Engineering.

Montana Tech's commitment to research has resulted in significant funding for compelling projects that will help transform tomorrow. Undergraduate and graduate students alike are frequently involved with faculty and staff in these important research programs.

Additional information can be found on the Montana Tech website (<http://www.mtech.edu/>).

### The University of Montana Western

The unique mission of the University of Montana Western emphasizes experiential learning combining theory and practice through projects and field experiences. Montana Western students learn by doing, collaborating directly with their professors and fellow students in a mentorship environment.

In order to better facilitate this type of learning, UMW adopted a course scheduling system, named Experience One (X1). Under X1, students take a single course at a time for 18 days for three hours per day. Montana

Western is the first and only public four-year university in the country to fully adopt this system.

Montana Western embraces the privilege and obligations associated with its mission as a higher education institution within the beautiful landscape of southwest Montana. This mission infuses the University's curriculum:

- in its century-long tradition for excellence in professional programs in teacher education, business and technology;
- in its strong interdisciplinary arts and science programs; and
- in its two-year associate degree programs responding to regional needs.

Montana Western offers the Bachelor of Science degree in:

- Elementary Education, Secondary Education with options in traditional subject areas,
- Biology,
- Business Administration,
- Early Childhood Education,
- Environmental Interpretation,
- Environmental Science,
- Health & Human Performance,
- Mathematics, and
- Natural Horsemanship.

In addition, Montana Western offers Bachelor of Arts (BA) and Bachelor of Applied Science (BAS) degrees. Bachelor of Arts options include English, Interdisciplinary Social Science, and Visual Arts. Bachelor of Applied Science students may use an Associate of Applied Science (AAS) degree as a base for the BAS degree with most of the credits from the two-year degree transferring into the BAS at Montana Western. Montana Western also offers Associate of Arts and Associate of Science degrees for those who want to obtain their general education before transferring to another campus; Associate of Applied Science degrees for those needing entry-level job skills in Business, Early Childhood Education, Education Studies, Equine Studies, Natural Horsemanship, and Tourism & Recreation; and certificate programs in Early Childhood Technology, and Information Technology & Network Administration.

Individualized education has been a campus hallmark for over 100 years. Approximately 1,400 students enroll at Montana Western each fall. Class sizes are kept small (average class size is 18 students). The faculty is nationally recognized for its excellence, creativity, and genuine concern for maintaining the Montana Western tradition of high quality academic and personal experience.

In addition to fulfilling academic life, Montana Western offers National Association of Intercollegiate Athletics Frontier Conference sports in football, volleyball, men's and women's basketball, men's and women's National Intercollegiate Rodeo Association teams, and Equestrian team competition. A varied sports program is also available for students seeking intramural activities.

With close proximity to Yellowstone, Grand Teton, and Glacier national parks, Montana Western's geographic location makes an ideal setting for individuals who enjoy the rugged outdoors. With a friendly, small town atmosphere, Dillon offers many of the amenities of a much larger community. Ranching, mining and tourism are the chief industries of the area. Montana Western's picturesque 34-acre campus and friendly atmosphere enhance the community and area. For more

information visit the University of Montana Western website (<https://www.umwestern.edu/>).

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## College of the Arts and Media

The College of the Arts and Media is comprised of three professionally accredited schools:

- Journalism (<http://jour.umt.edu/>)
- Music (<http://www.umt.edu/music/>)
- Theatre and Dance (<http://www.umt.edu/umarts/theatredance/>)
- Visual and Media Arts (<https://www.umt.edu/svma/>)

The College of the Arts and Media is committed to leadership in pedagogy, creative scholarship, professional performance, artistic exhibition, and journalistic inquiry. The College prides itself on its high achieving faculty, successful alumni, and talented students who work hard to ensure that the University of Montana serves as the heart of culture and media for the state and region. Each program in the College is designed to:

- Teach students with rigor and devotion by offering in-depth experiential learning that enables them to perform, create, and interrogate big questions of art, culture, and society with specificity and maturity, remaining open to diverse perspective.
- Serve the University, the community, state, region, and nation by presenting high quality concerts, productions, exhibitions, and journalism



- Offer scholarly research opportunities for all disciplines to engage students in theoretical explorations of all forms of arts and media.
- Provide leadership in the arts and media by enhancing the excellence of traditional curricula, instruction, and research with innovative and imaginative programs that utilize new technologies, incorporate various media, and enhance cultural and intellectual environments.
- Inspire students to pursue excellence in their creative and investigative activities and uphold the free expression of complex ideas.

For more information visit the College of the Arts and Media website (<http://www.umt.edu/umarts/>).

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## School of Journalism

Courses in the School of Journalism examine the news media – emphasizing their history, privileges and ethical responsibilities – and provide instruction in skills required for a wide array of careers that require gathering, verifying and disseminating news and information in the Digital Age. The School of Journalism offers a Bachelor of Arts in Journalism and a minor in Journalism.

Students select courses in writing, reporting, producing, directing, editing and still and video photography. They train to work across multiple platforms including online, audio, video, newspaper and magazine.

A quality education in journalism is built on a strong liberal arts foundation. Students must complete 72 credits outside of journalism, including the University's general education requirements.

For further information about the school's Master of Arts program in Environmental Science and Natural Resource Journalism, contact the

Director of Graduate Studies in Journalism, Nadia White  
 School of Journalism  
 University of Montana  
 Missoula, MT 59812  
 or (406) 243-2227.

## Lower-Division Core

In the first three or four semesters of study students take courses in the major and in the liberal arts and sciences. Journalism courses must be taken at University of Montana-Missoula, though the directors may occasionally accept substitutes taught at another school with programs accredited by the Accrediting Council for Education in Journalism and Mass Communication. All non-journalism courses in the curriculum may be completed at any college or university if transfer credits are accepted by UM. Students may enter during either autumn or spring semester.

## Upper-Division Core

Students may begin taking upper division courses after they complete the lower division prerequisites for those courses.

## Academic Progression

The general University academic standing requirements are listed separately in this catalog. See index.

Journalism majors must maintain satisfactory academic progress. Any student whose GPA falls below a 2.5 must meet with their advisor to

discuss the student's progress before classes resume the following semester.

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## Journalism B.A.

### General Degree Requirements

To earn a baccalaureate degree, all students must complete successfully, in addition to any other requirements, the University of Montana General Education Requirements. Please refer to the General Education Requirements page (p. 39) for more information.

Additional requirements for graduation can be found on the Degree/Certificate Requirements for Graduation page (p. 36).

Unless otherwise noted in individual program requirements, a minimum grade point average of 2.00 in all work attempted at the University of Montana-Missoula is required for graduation. Please see the Academic Policies and Procedures page (p. 25) for information on how your GPA is calculated.

Courses taken to satisfy the requirements of a major, minor, or certificate program must be completed with a grade of C- or better unless a higher grade is noted in the program requirements.

## Bachelor of Arts - Journalism

- This major requires a cumulative institutional GPA of 2.5.
- Students must complete at least 42 and no more than 48 JRNL credits.
- Students must complete at least 72 total credits outside of Journalism.
- The school strongly recommends students complete the first-year sequence of an approved language course or equivalent by exam before applying to the professional program.

### Course Requirements

| Code                                                 | Title                                                                                               | Hours |
|------------------------------------------------------|-----------------------------------------------------------------------------------------------------|-------|
| <b>Lower-Division Core Requirements</b> <sup>1</sup> |                                                                                                     |       |
| Complete all of the following courses:               |                                                                                                     |       |
| JRNL 100H                                            | Journalism and American Society (Prerequisite for JRNL 270)                                         | 3     |
| JRNL 170                                             | Writing the News (Prerequisite for JRNL 270)                                                        | 3     |
| JRNL 257A                                            | Beginning Video and Photojournalism (Prerequisite for JRNL 328 and 350)                             | 3     |
| JRNL 270                                             | Reporting the News (Co-requisite for JRNL 328 and 350; prerequisite for all other UD JRNL courses ) | 3     |
| <b>Upper-Division Core Requirements</b>              |                                                                                                     |       |
| Complete all of the following courses:               |                                                                                                     |       |
| JRNL 300                                             | First Amendment and Media Law                                                                       | 3     |
| JRNL 400                                             | Ethics & Trends in News Media                                                                       | 3     |
| JRNL 498                                             | Supervised Internship                                                                               | 3     |
| <b>Capstone</b> <sup>2</sup>                         |                                                                                                     |       |

Complete one of the following courses: 3

|          |                                    |
|----------|------------------------------------|
| JRNL 410 | Native News Honors Project         |
| JRNL 411 | Reporting Native News              |
| JRNL 412 | Magazine Production and Design     |
| JRNL 440 | Advanced Audio                     |
| JRNL 470 | Campaign Coverage                  |
| JRNL 471 | Covering the Legislature           |
| JRNL 473 | International Reporting            |
| JRNL 480 | Reporting Video News               |
| JRNL 481 | Advanced Video Photo and Directing |
| JRNL 488 | Student Documentary Unit           |

#### Upper-Division Electives

Complete five of the following courses: 15

|           |                                            |
|-----------|--------------------------------------------|
| JRNL 301X | Diversity in Media                         |
| JRNL 328  | Intermediate Photojournalism               |
| JRNL 330  | News Editing                               |
| JRNL 331  | Digital and Interactive Reporting          |
| JRNL 332  | Social Media and Audience                  |
| JRNL 340  | Intermediate Audio                         |
| JRNL 342  | Multimedia Sports Announcing and Writing   |
| JRNL 350  | Intermediate Video Photography             |
| JRNL 351  | Intermediate Video Directing               |
| JRNL 352  | Intermediate Video Reporting and Producing |
| JRNL 362  | Feature Writing                            |
| JRNL 370  | Beat Reporting                             |
| JRNL 383L | Hollywood and the War Correspondent        |
| JRNL 384  | Documentary Film History                   |
| JRNL 410  | Native News Honors Project                 |
| JRNL 411  | Reporting Native News                      |
| JRNL 412  | Magazine Production and Design             |
| JRNL 414  | Investigations                             |
| JRNL 427  | Advanced Photo & Multimedia Storytelling   |
| JRNL 428  | Freelance Photography                      |
| JRNL 430  | Print & Web Editing & Design               |
| JRNL 433  | Marketing Your Work                        |
| JRNL 440  | Advanced Audio                             |
| JRNL 470  | Campaign Coverage                          |
| JRNL 471  | Covering the Legislature                   |
| JRNL 472  | Opinion Writing                            |
| JRNL 473  | International Reporting                    |
| JRNL 480  | Reporting Video News                       |
| JRNL 481  | Advanced Video Photo and Directing         |
| JRNL 482  | Advanced Video Storytelling                |
| JRNL 488  | Student Documentary Unit                   |
| JRNL 494  | Pollner Seminar                            |

**Total Hours 39**

<sup>1</sup> Students must maintain a 2.5 overall GPA and 2.5 GPA in the Journalism Lower-Division Core.

<sup>2</sup> Please see your advisor for additional courses that may satisfy this requirement.

Four Year Plan

| Course                                                                                                                                          | Title                                                                                                                                                                                                                                                                                                                     | Hours        |
|-------------------------------------------------------------------------------------------------------------------------------------------------|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|--------------|
| <b>Freshman</b>                                                                                                                                 |                                                                                                                                                                                                                                                                                                                           |              |
| <b>Autumn</b>                                                                                                                                   |                                                                                                                                                                                                                                                                                                                           |              |
| JRNL 100H                                                                                                                                       | Journalism and American Society                                                                                                                                                                                                                                                                                           | 3            |
| WRIT 101<br>or JRNL 257A                                                                                                                        | College Writing I<br>or Beginning Video and Photojournalism                                                                                                                                                                                                                                                               | 3-4          |
| Foreign Language                                                                                                                                |                                                                                                                                                                                                                                                                                                                           | 4            |
| General Education Requirements                                                                                                                  |                                                                                                                                                                                                                                                                                                                           | 3            |
| <b>Hours</b>                                                                                                                                    |                                                                                                                                                                                                                                                                                                                           | <b>13-14</b> |
| <b>Spring</b>                                                                                                                                   |                                                                                                                                                                                                                                                                                                                           |              |
| JRNL 170                                                                                                                                        | Writing the News                                                                                                                                                                                                                                                                                                          | 3            |
| JRNL 257A<br>or WRIT 101                                                                                                                        | Beginning Video and Photojournalism<br>or College Writing I                                                                                                                                                                                                                                                               | 3-4          |
| Foreign Language                                                                                                                                |                                                                                                                                                                                                                                                                                                                           | 4            |
| General Education Requirements                                                                                                                  |                                                                                                                                                                                                                                                                                                                           | 6            |
| <b>Hours</b>                                                                                                                                    |                                                                                                                                                                                                                                                                                                                           | <b>16-17</b> |
| <b>Sophomore</b>                                                                                                                                |                                                                                                                                                                                                                                                                                                                           |              |
| <b>Autumn</b>                                                                                                                                   |                                                                                                                                                                                                                                                                                                                           |              |
| JRNL 270                                                                                                                                        | Reporting the News                                                                                                                                                                                                                                                                                                        | 3            |
| General Education Requirements                                                                                                                  |                                                                                                                                                                                                                                                                                                                           | 6            |
| Elective                                                                                                                                        |                                                                                                                                                                                                                                                                                                                           | 6            |
| <b>Hours</b>                                                                                                                                    |                                                                                                                                                                                                                                                                                                                           | <b>15</b>    |
| <b>Spring</b>                                                                                                                                   |                                                                                                                                                                                                                                                                                                                           |              |
| Upper Division JRNL Elective                                                                                                                    |                                                                                                                                                                                                                                                                                                                           | 3            |
| General Education Requirements                                                                                                                  |                                                                                                                                                                                                                                                                                                                           | 6            |
| Elective                                                                                                                                        |                                                                                                                                                                                                                                                                                                                           | 6            |
| <b>Hours</b>                                                                                                                                    |                                                                                                                                                                                                                                                                                                                           | <b>15</b>    |
| <b>Junior</b>                                                                                                                                   |                                                                                                                                                                                                                                                                                                                           |              |
| <b>Autumn</b>                                                                                                                                   |                                                                                                                                                                                                                                                                                                                           |              |
| Upper Division JRNL Elective                                                                                                                    |                                                                                                                                                                                                                                                                                                                           | 3            |
| Upper Division Elective                                                                                                                         |                                                                                                                                                                                                                                                                                                                           | 3            |
| Elective                                                                                                                                        |                                                                                                                                                                                                                                                                                                                           | 9            |
| <b>Hours</b>                                                                                                                                    |                                                                                                                                                                                                                                                                                                                           | <b>15</b>    |
| <b>Spring</b>                                                                                                                                   |                                                                                                                                                                                                                                                                                                                           |              |
| JRNL 300                                                                                                                                        | First Amendment and Media Law                                                                                                                                                                                                                                                                                             | 3            |
| Upper Division JRNL Elective                                                                                                                    |                                                                                                                                                                                                                                                                                                                           | 3            |
| Upper Division Elective                                                                                                                         |                                                                                                                                                                                                                                                                                                                           | 3            |
| Elective                                                                                                                                        |                                                                                                                                                                                                                                                                                                                           | 6            |
| <b>Hours</b>                                                                                                                                    |                                                                                                                                                                                                                                                                                                                           | <b>15</b>    |
| <b>Summer</b>                                                                                                                                   |                                                                                                                                                                                                                                                                                                                           |              |
| JRNL 498                                                                                                                                        | Supervised Internship                                                                                                                                                                                                                                                                                                     | 3            |
| <b>Hours</b>                                                                                                                                    |                                                                                                                                                                                                                                                                                                                           | <b>3</b>     |
| <b>Senior</b>                                                                                                                                   |                                                                                                                                                                                                                                                                                                                           |              |
| <b>Autumn</b>                                                                                                                                   |                                                                                                                                                                                                                                                                                                                           |              |
| JRNL 400                                                                                                                                        | Ethics & Trends in News Media                                                                                                                                                                                                                                                                                             | 3            |
| Upper Division JRNL Elective (writing in the disciplines course)                                                                                |                                                                                                                                                                                                                                                                                                                           | 3            |
| Upper Division Elective                                                                                                                         |                                                                                                                                                                                                                                                                                                                           | 3            |
| Elective                                                                                                                                        |                                                                                                                                                                                                                                                                                                                           | 6            |
| <b>Hours</b>                                                                                                                                    |                                                                                                                                                                                                                                                                                                                           | <b>15</b>    |
| <b>Spring</b>                                                                                                                                   |                                                                                                                                                                                                                                                                                                                           |              |
| JRNL 410<br>or JRNL 411<br>or JRNL 412<br>or JRNL 440<br>or JRNL 470<br>or JRNL 471<br>or JRNL 473<br>or JRNL 480<br>or JRNL 481<br>or JRNL 488 | Native News Honors Project (Capstone + lab)<br>or Reporting Native News<br>or Magazine Production and Design<br>or Advanced Audio<br>or Campaign Coverage<br>or Covering the Legislature<br>or International Reporting<br>or Reporting Video News<br>or Advanced Video Photo and Directing<br>or Student Documentary Unit | 6            |
| Upper Division JRNL Elective                                                                                                                    |                                                                                                                                                                                                                                                                                                                           | 3            |
| Upper Division Elective                                                                                                                         |                                                                                                                                                                                                                                                                                                                           | 3            |

|                    |                |
|--------------------|----------------|
| Elective           | 3              |
| <b>Hours</b>       | <b>15</b>      |
| <b>Total Hours</b> | <b>122-124</b> |

Last updated Autumn 2024

Journalism Minor  
General Degree Requirements

To earn a baccalaureate degree, all students must complete successfully, in addition to any other requirements, the University of Montana General Education Requirements. Please refer to the General Education Requirements page (p. 39) for more information.

Additional requirements for graduation can be found on the Degree/ Certificate Requirements for Graduation page (p. 36).

Unless otherwise noted in individual program requirements, a minimum grade point average of 2.00 in all work attempted at the University of Montana-Missoula is required for graduation. Please see the Academic Policies and Procedures page (p. 25) for information on how your GPA is calculated.

Courses taken to satisfy the requirements of a major, minor, or certificate program must be completed with a grade of C- or better unless a higher grade is noted in the program requirements.

Minor - Journalism

Course Requirements

| Code                                                                      | Title                               | Hours     |
|---------------------------------------------------------------------------|-------------------------------------|-----------|
| <b>Core Courses</b>                                                       |                                     |           |
| Complete all of the following courses:                                    |                                     |           |
| JRNL 100H                                                                 | Journalism and American Society     | 3         |
| JRNL 170                                                                  | Writing the News                    | 3         |
| JRNL 257A                                                                 | Beginning Video and Photojournalism | 3         |
| JRNL 270                                                                  | Reporting the News                  | 3         |
| JRNL 300                                                                  | First Amendment and Media Law       | 3         |
| JRNL 400                                                                  | Ethics & Trends in News Media       | 3         |
| <b>Elective</b>                                                           |                                     |           |
| Complete one additional JRNL upper-division (300- or 400-level) elective. |                                     | 3         |
| <b>Total Hours</b>                                                        |                                     | <b>21</b> |

Social Media and Audience  
Engagement Certificate

General Certificate Requirements

Additional requirements for graduation can be found on the Degree/ Certificate Requirements for Graduation page (p. 36).

Unless otherwise noted in individual program requirements, a minimum grade point average of 2.00 in all work attempted at the University of Montana-Missoula is required for graduation. Please see the Academic Policies and Procedures page (p. 25) for information on how your GPA is calculated.

Courses taken to satisfy the requirements of a major, minor, or certificate program must be completed with a grade of C- or better unless a higher grade is noted in the program requirements.

## Online Program Option

This program may be completed in an online format (<https://catalog.umat.edu/online-programs/definitions/>). Students interested in pursuing an online degree or certificate program are strongly encouraged to contact the offering department to discuss specific program and course modalities (<https://catalog.umat.edu/online-programs/definitions/>) and create a plan of study with an academic advisor. The course requirements listed below may not be consistently offered via online delivery.

Post-Secondary Certificate - Social Media and Audience Engagement

### Course Requirements

| Code                                   | Title                               | Hours     |
|----------------------------------------|-------------------------------------|-----------|
| Complete all of the following courses: |                                     |           |
| JRNL 102Y                              | Calling Bullshit                    | 3         |
| JRNL 170                               | Writing the News                    | 3         |
| JRNL 257A                              | Beginning Video and Photojournalism | 3         |
| JRNL 332                               | Social Media and Audience           | 3         |
| <b>Total Hours</b>                     |                                     | <b>12</b> |

## School of Music

The School of Music offers students who have demonstrated talent in music the opportunity to continue further study either for a profession or an avocation and at the same time acquire a broad general education. Complete sequences of courses are given to prepare a student for a career as a teacher or supervisor of music in the elementary/secondary schools; for a career directed toward composition, the music technology industry, private teaching, or concert work; or, for a thorough training in music within the structure of a broad liberal arts curriculum.

The University of Montana-Missoula is an accredited institutional member of the National Association of Schools of Music.

In general, admission as a major in the School of Music is by certificate from the high school from which the student graduates. The faculty of the School of Music is more concerned with evidence of talent, conspicuous achievement in music, promise of development, and scholarship in general than it is in the precise content of the program which the prospective music student has followed prior to admission to the University.

The School of Music welcomes the opportunity for prospective students and parents to consult with faculty and administration. Every student wishing to become a music major or minor must take the Music Theory Assessment Examination and a Piano Proficiency Evaluation during orientation and also must audition and be accepted officially into the applied studio of a music faculty member prior to confirmation as a fully-admitted major or minor in music. Students may be admitted provisionally for one semester, and at the end of that semester students must re-audition to gain full admittance into a music major degree program.

- Music B.A. (p. 79)
- Music B.A. - Instrumental Jazz Studies (p. 84)

- Music B.M.E. (p. 85)
- Composition B.M. - Contemporary Classical (p. 86)
- Composition B.M. - Pop and Commercial (p. 88)
- Performance B.M. - Instrumental (p. 89)
- Performance B.M. - Keyboard (p. 90)
- Performance B.M. - Voice (p. 91)
- Jazz Studies Certificate (p. 92)
- Music Minor (p. 93)

## Music B.A.

### General Degree Requirements

To earn a baccalaureate degree, all students must complete successfully, in addition to any other requirements, the University of Montana General Education Requirements. Please refer to the General Education Requirements page (p. 39) for more information.

Additional requirements for graduation can be found on the Degree/Certificate Requirements for Graduation page (p. 36).

Unless otherwise noted in individual program requirements, a minimum grade point average of 2.00 in all work attempted at the University of Montana-Missoula is required for graduation. Please see the Academic Policies and Procedures page (p. 25) for information on how your GPA is calculated.

Courses taken to satisfy the requirements of a major, minor, or certificate program must be completed with a grade of C- or better unless a higher grade is noted in the program requirements.

## Bachelor of Arts - Music

- This major has a minimum cumulative institutional GPA requirement of 2.75.
- Students must complete 51 Credits of non-music (MUSI, MUSE, MUST) courses.

### Course Requirements

| Code                                   | Title                | Hours |
|----------------------------------------|----------------------|-------|
| <b>First Year Seminar</b>              |                      |       |
| Complete the following course:         |                      |       |
| MUSI 194                               | Seminar              | 1     |
| <b>Applied</b>                         |                      |       |
| Complete all of the following courses: |                      |       |
| MUSI 195                               | Applied Study I      | 2     |
| MUSI 295                               | Applied Study II     | 2     |
| <b>Music Theory</b>                    |                      |       |
| Complete all of the following courses: |                      |       |
| MUSI 105                               | Music Theory I       | 2     |
| MUSI 106                               | Music Theory II      | 2     |
| MUSI 205                               | Music Theory III     | 2     |
| <b>Aural Perception</b>                |                      |       |
| Complete all of the following courses: |                      |       |
| MUSI 140                               | Aural Perception I   | 2     |
| MUSI 141                               | Aural Perception II  | 2     |
| MUSI 240                               | Aural Perception III | 2     |
| <b>Keyboard Skills</b>                 |                      |       |

Complete all of the following courses:

|           |                    |   |
|-----------|--------------------|---|
| MUSI 135A | Keyboard Skills I  | 1 |
| MUSI 136A | Keyboard Skills II | 1 |

Ensembles Requirement

Students must enroll in a minimum of one qualifying ensemble each semester while registered as a full-time student, resulting in at least 8 semesters of ensemble participation to satisfy degree requirements. Qualifying ensembles are determined by a student’s auditioned principal instrument in consultation with their faculty mentor and academic advisor.

Lower-Division

Complete 4 credits from the following courses: 4

|           |                       |
|-----------|-----------------------|
| MUSI 108A | Orchestra: UMSO       |
| MUSI 112A | Choir                 |
| MUSI 114A | Band: UM Concert Band |
| MUSI 162A | Chamber Ensembles I   |

Upper-Division

Complete 4 credits from the following courses: 4

|          |                           |
|----------|---------------------------|
| MUSI 308 | Orchestras II: UM         |
| MUSI 310 | Opera Theatre II          |
| MUSI 312 | Choir III                 |
| MUSI 314 | Band III: UM Concert Band |
| MUSI 331 | Jazz Ensemble II: UM      |
| MUSI 362 | Chamber Ensemble III: UM  |

Assessment

Complete the following assessment, which is required to advance to upper-division study:

|          |                                     |   |
|----------|-------------------------------------|---|
| MUSI 296 | Upper-Division Required Performance | 0 |
|----------|-------------------------------------|---|

History and Culture

Complete the following course:

|           |                  |   |
|-----------|------------------|---|
| MUSI 302H | Music History II | 3 |
|-----------|------------------|---|

Writing in the Disciplines Requirement

Complete one of the following courses: 3

|          |                               |
|----------|-------------------------------|
| MUSI 415 | Music 20th Century to Present |
| MUSI 416 | Topics in Music History       |
| MUSI 417 | Cultural Studies in Music     |

Concert Attendance

All students majoring in Music are required to attend a minimum of 100 approved recitals/concerts prior to graduation. Upon completion of this requirement, students should register for the following course, which is typically taken in their final semester before graduation.

|          |                       |   |
|----------|-----------------------|---|
| MUSI 388 | Concert Attendance UM | 0 |
|----------|-----------------------|---|

Upper-Division Music Electives

Complete 13 credits of courses in the following subject areas at the 300- or 400-level: 13

|                         |
|-------------------------|
| Music (MUSI)            |
| Music Education (MUSE)  |
| Music Technology (MUST) |

|             |    |
|-------------|----|
| Total Hours | 46 |
|-------------|----|

Tracks: Applied Studies (p. 80) | Composition (p. 81) | Jazz Studies (p. 82) | Music History (p. 82) | Musical Studies (p. 83)

Applied Studies

| Course                                                                   | Title                                                                                                                                                   | Hours |
|--------------------------------------------------------------------------|---------------------------------------------------------------------------------------------------------------------------------------------------------|-------|
| Freshman                                                                 |                                                                                                                                                         |       |
| Autumn                                                                   |                                                                                                                                                         |       |
| MUSI 105                                                                 | Music Theory I                                                                                                                                          | 2     |
| MUSI 140                                                                 | Aural Perception I                                                                                                                                      | 2     |
| MUSI 135A                                                                | Keyboard Skills I                                                                                                                                       | 1     |
| MUSI 195                                                                 | Applied Study I                                                                                                                                         | 1     |
| Lower-Division Ensemble (see advisor)                                    |                                                                                                                                                         | 1     |
| WRIT 101                                                                 | College Writing I                                                                                                                                       | 4     |
| General Education Course or Elective                                     |                                                                                                                                                         | 3     |
| MUSI 194                                                                 | Seminar (optional but highly recommended)                                                                                                               | 1     |
| Hours                                                                    |                                                                                                                                                         | 15    |
| Spring                                                                   |                                                                                                                                                         |       |
| MUSI 106                                                                 | Music Theory II                                                                                                                                         | 2     |
| MUSI 141                                                                 | Aural Perception II                                                                                                                                     | 2     |
| MUSI 136A                                                                | Keyboard Skills II                                                                                                                                      | 1     |
| Lower-Division Ensemble (see advisor)                                    |                                                                                                                                                         | 1     |
| MUSI 101L<br>or MUSI 130L<br>or MUSI 132L<br>or MUSI 133<br>or MUSI 202L | Enjoyment of Music<br>or History of Jazz<br>or History of Rock & Roll<br>or Country Music: Cowboys, Opry, and Nashville<br>or Intro to Music Literature | 3     |
| General Education Course or Elective                                     |                                                                                                                                                         | 6     |
| Hours                                                                    |                                                                                                                                                         | 15    |
| Sophomore                                                                |                                                                                                                                                         |       |
| Autumn                                                                   |                                                                                                                                                         |       |
| MUSI 205                                                                 | Music Theory III                                                                                                                                        | 2     |
| MUSI 240                                                                 | Aural Perception III                                                                                                                                    | 2     |
| MUSI 301H                                                                | Music History I                                                                                                                                         | 3     |
| MUSI 295                                                                 | Applied Study II                                                                                                                                        | 1     |
| Lower-Division Ensemble (see advisor)                                    |                                                                                                                                                         | 1     |
| Humanities requirement                                                   |                                                                                                                                                         | 3     |
| General Education Course or Elective                                     |                                                                                                                                                         | 3     |
| Hours                                                                    |                                                                                                                                                         | 15    |
| Spring                                                                   |                                                                                                                                                         |       |
| MUSI 206                                                                 | Music Theory IV                                                                                                                                         | 2     |
| MUSI 241                                                                 | Aural Perception IV                                                                                                                                     | 2     |
| MUSI 295                                                                 | Applied Study II                                                                                                                                        | 1     |
| Lower-Division Ensemble (see advisor)                                    |                                                                                                                                                         | 1     |
| MUSI 296                                                                 | Upper-Division Required Performance <sup>1</sup>                                                                                                        | 0     |
| Humanities Requirement                                                   |                                                                                                                                                         | 3     |
| General Education Course or Elective                                     |                                                                                                                                                         | 3     |
| Hours                                                                    |                                                                                                                                                         | 12    |
| Junior                                                                   |                                                                                                                                                         |       |
| Autumn                                                                   |                                                                                                                                                         |       |
| MUSI 395                                                                 | Applied Study III                                                                                                                                       | 1     |
| Upper-Division Ensemble (see advisor)                                    |                                                                                                                                                         | 1     |
| MUSI 356                                                                 | Form & Analysis                                                                                                                                         | 2     |
| Foreign Language I                                                       |                                                                                                                                                         | 4     |
| General Education Course or Elective                                     |                                                                                                                                                         | 7     |
| Hours                                                                    |                                                                                                                                                         | 15    |
| Spring                                                                   |                                                                                                                                                         |       |
| MUSI 395                                                                 | Applied Study III                                                                                                                                       | 1     |
| Upper-Division Ensemble (see advisor)                                    |                                                                                                                                                         | 1     |
| MUSI 418                                                                 | Advanced Topics in Music Theory                                                                                                                         | 2     |
| Foreign Language II                                                      |                                                                                                                                                         | 4     |
| General Education Course or Elective                                     |                                                                                                                                                         | 8     |
| Hours                                                                    |                                                                                                                                                         | 16    |



|                                       |                                    |            |
|---------------------------------------|------------------------------------|------------|
| <b>Senior</b>                         |                                    |            |
| <b>Autumn</b>                         |                                    |            |
| MUSI 495                              | Applied Study IV                   | 1          |
| Upper-Division Ensemble (see advisor) |                                    | 1          |
| MUSI 415                              | Music 20th Century to Present      | 3          |
| or MUSI 416                           | or Topics in Music History         |            |
| or MUSI 417                           | or Cultural Studies in Music       |            |
| General Education Course or Elective  |                                    | 9          |
| <b>Hours</b>                          |                                    | <b>14</b>  |
| <b>Spring</b>                         |                                    |            |
| MUSI 495                              | Applied Study IV                   | 1          |
| Upper-Division Ensemble (see advisor) |                                    | 1          |
| MUSI 388                              | Concert Attendance UM <sup>2</sup> | 0          |
| General Education Course or Elective  |                                    | 13         |
| <b>Hours</b>                          |                                    | <b>15</b>  |
| <b>Total Hours</b>                    |                                    | <b>117</b> |

*Last updated Autumn 2024*

## Composition

# This is the degree map for a **B.A.** in Music - Composition, *not* a B.M. in Music - Composition (<https://catalog.umd.edu/colleges-schools-programs/arts-media/music/bmus-music/#composition>).

| Course                                | Title                                          | Hours        |
|---------------------------------------|------------------------------------------------|--------------|
| <b>Freshman</b>                       |                                                |              |
| <b>Autumn</b>                         |                                                |              |
| MUSI 105                              | Music Theory I                                 | 2            |
| MUSI 140                              | Aural Perception I                             | 2            |
| MUSI 135A                             | Keyboard Skills I                              | 1            |
| MUSI 195                              | Applied Study I                                | 1            |
| Lower-Division Ensemble (see advisor) |                                                | 1            |
| MUSI 180                              | Composition I                                  | 1-2          |
| MUSI 194                              | Seminar (optional but highly recommended)      | 1            |
| WRIT 101                              | College Writing I                              | 4            |
| General Education Course or Elective  |                                                | 3            |
| <b>Hours</b>                          |                                                | <b>16-17</b> |
| <b>Spring</b>                         |                                                |              |
| MUSI 106                              | Music Theory II                                | 2            |
| MUSI 141                              | Aural Perception II                            | 2            |
| MUSI 136A                             | Keyboard Skills II                             | 1            |
| MUSI 195                              | Applied Study I                                | 1            |
| Lower-Division Ensemble (see advisor) |                                                | 1            |
| MUSI 101L                             | Enjoyment of Music                             | 3            |
| or MUSI 130L                          | or History of Jazz                             |              |
| or MUSI 132L                          | or History of Rock & Roll                      |              |
| or MUSI 133                           | or Country Music: Cowboys, Opry, and Nashville |              |
| or MUSI 202L                          | or Intro to Music Literature                   |              |
| MUSI 180                              | Composition I                                  | 1-2          |
| MUST 110                              | Digital Audio & Multitracking                  | 2            |
| General Education Course or Elective  |                                                | 3            |
| <b>Hours</b>                          |                                                | <b>16-17</b> |
| <b>Sophomore</b>                      |                                                |              |
| <b>Autumn</b>                         |                                                |              |
| MUSI 205                              | Music Theory III                               | 2            |
| MUSI 240                              | Aural Perception III                           | 2            |
| MUSI 301H                             | Music History I                                | 3            |
| MUSI 280                              | Composition II                                 | 1-2          |
| Lower-Division Ensemble (see advisor) |                                                | 1            |

|                                       |                                                                         |              |
|---------------------------------------|-------------------------------------------------------------------------|--------------|
| MUSE 120                              | Techniques: String Instruments in Classical Music I (Techniques Course) | 1            |
| or MUSE 121                           | or Techniques: String Instruments in Classical Music II                 |              |
| or MUSE 123                           | or Techniques: Voice                                                    |              |
| or MUSE 126                           | or Techniques: Percussion Instruments I                                 |              |
| or MUSE 127                           | or Techniques: Percussion Instruments II                                |              |
| or MUSE 274                           | or Techniques: Upper Brass                                              |              |
| or MUSE 275                           | or Techniques: Lower Brass                                              |              |
| or MUSE 280                           | or Techniques: Woodwinds – Clarinet and Saxophone                       |              |
| or MUSE 281                           | or Techniques: Woodwinds - Double Reed and Flute                        |              |
| Humanities requirement                |                                                                         | 3            |
| General Education Course or Elective  |                                                                         | 1            |
| <b>Hours</b>                          |                                                                         | <b>14-15</b> |
| <b>Spring</b>                         |                                                                         |              |
| MUSI 206                              | Music Theory IV                                                         | 2            |
| MUSI 241                              | Aural Perception IV                                                     | 2            |
| MUSI 280                              | Composition II                                                          | 1-2          |
| MUSI 295                              | Applied Study II                                                        | 1            |
| Lower-Division Ensemble (see advisor) |                                                                         | 1            |
| MUSI 296                              | Upper-Division Required Performance <sup>1</sup>                        | 0            |
| MUST 210                              | Sequencing, Synthesis, and Sampling                                     | 2            |
| MUSE 120                              | Techniques: String Instruments in Classical Music I (Techniques Course) | 1            |
| or MUSE 121                           | or Techniques: String Instruments in Classical Music II                 |              |
| or MUSE 123                           | or Techniques: Voice                                                    |              |
| or MUSE 126                           | or Techniques: Percussion Instruments I                                 |              |
| or MUSE 127                           | or Techniques: Percussion Instruments II                                |              |
| or MUSE 274                           | or Techniques: Upper Brass                                              |              |
| or MUSE 275                           | or Techniques: Lower Brass                                              |              |
| or MUSE 280                           | or Techniques: Woodwinds – Clarinet and Saxophone                       |              |
| or MUSE 281                           | or Techniques: Woodwinds - Double Reed and Flute                        |              |
| Humanities Requirement                |                                                                         | 3            |
| General Education Course or Elective  |                                                                         | 1            |
| <b>Hours</b>                          |                                                                         | <b>14-15</b> |
| <b>Junior</b>                         |                                                                         |              |
| <b>Autumn</b>                         |                                                                         |              |
| MUSI 380                              | Composition III                                                         | 1-3          |
| Upper-Division Ensemble (see advisor) |                                                                         | 1            |
| MUSI 356                              | Form & Analysis                                                         | 2            |
| MUSE 120                              | Techniques: String Instruments in Classical Music I (Techniques Course) | 1            |
| or MUSE 121                           | or Techniques: String Instruments in Classical Music II                 |              |
| or MUSE 123                           | or Techniques: Voice                                                    |              |
| or MUSE 126                           | or Techniques: Percussion Instruments I                                 |              |
| or MUSE 127                           | or Techniques: Percussion Instruments II                                |              |
| or MUSE 274                           | or Techniques: Upper Brass                                              |              |
| or MUSE 275                           | or Techniques: Lower Brass                                              |              |
| or MUSE 280                           | or Techniques: Woodwinds – Clarinet and Saxophone                       |              |
| or MUSE 281                           | or Techniques: Woodwinds - Double Reed and Flute                        |              |
| General Education Course or Elective  |                                                                         | 9            |
| <b>Hours</b>                          |                                                                         | <b>14-16</b> |
| <b>Spring</b>                         |                                                                         |              |
| MUSI 418                              | Advanced Topics in Music Theory                                         | 2            |
| Upper-Division Ensemble (see advisor) |                                                                         | 1            |

|                                                                                                                                  |                                                                                                                                                                                                                                                                                                                                                                                                                           |         |
|----------------------------------------------------------------------------------------------------------------------------------|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|---------|
| MUSE 120<br>or MUSE 121<br>or MUSE 123<br>or MUSE 126<br>or MUSE 127<br>or MUSE 274<br>or MUSE 275<br>or MUSE 280<br>or MUSE 281 | Techniques: String Instruments in Classical Music I<br>(Techniques Course)<br>or Techniques: String Instruments in Classical Music II<br>or Techniques: Voice<br>or Techniques: Percussion Instruments I<br>or Techniques: Percussion Instruments II<br>or Techniques: Upper Brass<br>or Techniques: Lower Brass<br>or Techniques: Woodwinds – Clarinet and Saxophone<br>or Techniques: Woodwinds - Double Reed and Flute | 1       |
| General Education Course or Elective                                                                                             |                                                                                                                                                                                                                                                                                                                                                                                                                           | 12      |
| Hours                                                                                                                            |                                                                                                                                                                                                                                                                                                                                                                                                                           | 16      |
| Senior                                                                                                                           |                                                                                                                                                                                                                                                                                                                                                                                                                           |         |
| Autumn                                                                                                                           |                                                                                                                                                                                                                                                                                                                                                                                                                           |         |
| MUSI 415<br>or MUSI 416<br>or MUSI 417                                                                                           | Music 20th Century to Present<br>or Topics in Music History<br>or Cultural Studies in Music                                                                                                                                                                                                                                                                                                                               | 3       |
| MUSI 440                                                                                                                         | Orchestration                                                                                                                                                                                                                                                                                                                                                                                                             | 2       |
| MUSI 480                                                                                                                         | Composition IV                                                                                                                                                                                                                                                                                                                                                                                                            | 1-3     |
| Upper-Division Ensemble (see advisor)                                                                                            |                                                                                                                                                                                                                                                                                                                                                                                                                           | 1       |
| General Education Course or Elective                                                                                             |                                                                                                                                                                                                                                                                                                                                                                                                                           | 9       |
| Hours                                                                                                                            |                                                                                                                                                                                                                                                                                                                                                                                                                           | 16-18   |
| Spring                                                                                                                           |                                                                                                                                                                                                                                                                                                                                                                                                                           |         |
| MUSI 388                                                                                                                         | Concert Attendance UM <sup>2</sup>                                                                                                                                                                                                                                                                                                                                                                                        | 0       |
| Upper-Division Ensemble (see advisor)                                                                                            |                                                                                                                                                                                                                                                                                                                                                                                                                           | 1       |
| General Education Course or Elective                                                                                             |                                                                                                                                                                                                                                                                                                                                                                                                                           | 12      |
| Hours                                                                                                                            |                                                                                                                                                                                                                                                                                                                                                                                                                           | 13      |
| Total Hours                                                                                                                      |                                                                                                                                                                                                                                                                                                                                                                                                                           | 119-127 |

Last updated Autumn 2024

Jazz Studies

| Course                                | Title                                     | Hours |
|---------------------------------------|-------------------------------------------|-------|
| Freshman                              |                                           |       |
| Autumn                                |                                           |       |
| MUSI 105                              | Music Theory I                            | 2     |
| MUSI 140                              | Aural Perception I                        | 2     |
| MUSI 135A                             | Keyboard Skills I                         | 1     |
| MUSI 195                              | Applied Study I                           | 1     |
| Lower-Division Ensemble (see advisor) |                                           | 1     |
| WRIT 101                              | College Writing I                         | 4     |
| General Education Course or Elective  |                                           | 3     |
| MUSI 194                              | Seminar (optional but highly recommended) | 1     |
| Hours                                 |                                           | 15    |
| Spring                                |                                           |       |
| MUSI 106                              | Music Theory II                           | 2     |
| MUSI 141                              | Aural Perception II                       | 2     |
| MUSI 136A                             | Keyboard Skills II                        | 1     |
| MUSI 195                              | Applied Study I                           | 1     |
| Lower-Division Ensemble (see advisor) |                                           | 1     |
| General Education Course or Elective  |                                           | 6     |
| Hours                                 |                                           | 13    |
| Sophomore                             |                                           |       |
| Autumn                                |                                           |       |
| MUSI 205                              | Music Theory III                          | 2     |
| MUSI 240                              | Aural Perception III                      | 2     |
| MUSI 301H                             | Music History I                           | 3     |
| MUSI 295                              | Applied Study II                          | 1     |
| Lower-Division Ensemble (see advisor) |                                           | 1     |
| MUSI 130L                             | History of Jazz                           | 3     |

|                                        |                                                                                             |     |
|----------------------------------------|---------------------------------------------------------------------------------------------|-----|
| General Education Course or Elective   |                                                                                             | 3   |
| Hours                                  |                                                                                             | 15  |
| Spring                                 |                                                                                             |     |
| MUSI 206                               | Music Theory IV                                                                             | 2   |
| MUSI 241                               | Aural Perception IV                                                                         | 2   |
| MUSI 302H                              | Music History II                                                                            | 3   |
| MUSI 295                               | Applied Study II                                                                            | 1   |
| Lower-Division Ensemble (see advisor)  |                                                                                             | 1   |
| MUSI 296                               | Upper-Division Required Performance <sup>1</sup>                                            | 0   |
| Humanities Requirement                 |                                                                                             | 3   |
| General Education Course or Elective   |                                                                                             | 3   |
| Hours                                  |                                                                                             | 15  |
| Junior                                 |                                                                                             |     |
| Autumn                                 |                                                                                             |     |
| MUSI 395                               | Applied Study III                                                                           | 1   |
| Upper-Division Ensemble (see advisor)  |                                                                                             | 1   |
| MUSI 360                               | Jazz Theory & Improvisation I (equivalent to 225)                                           | 2   |
| Humanities Requirement                 |                                                                                             | 3   |
| General Education Course or Elective   |                                                                                             | 9   |
| Hours                                  |                                                                                             | 16  |
| Spring                                 |                                                                                             |     |
| Upper-Division Ensemble (see advisor)  |                                                                                             | 1   |
| MUSI 460                               | Jazz Theory & Improvisation II                                                              | 2   |
| MUSI 420<br>or MUSI 470                | Jazz Pedagogy<br>or Jazz Arranging & Composition                                            | 3   |
| General Education Course or Elective   |                                                                                             | 9   |
| Hours                                  |                                                                                             | 15  |
| Senior                                 |                                                                                             |     |
| Autumn                                 |                                                                                             |     |
| Upper-Division Ensemble (see advisor)  |                                                                                             | 1   |
| MUSI 415<br>or MUSI 416<br>or MUSI 417 | Music 20th Century to Present<br>or Topics in Music History<br>or Cultural Studies in Music | 3   |
| General Education Course or Elective   |                                                                                             | 11  |
| Hours                                  |                                                                                             | 15  |
| Spring                                 |                                                                                             |     |
| Upper-Division Ensemble                |                                                                                             | 1   |
| MUSI 420<br>or MUSI 470                | Jazz Pedagogy<br>or Jazz Arranging & Composition                                            | 3   |
| MUSI 388                               | Concert Attendance UM <sup>2</sup>                                                          | 0   |
| MUSI 499                               | Senior Recital/Capstone Project (Senior Research Project)                                   | 2   |
| MUSI 418                               | Advanced Topics in Music Theory                                                             | 2   |
| General Education Course or Elective   |                                                                                             | 8   |
| Hours                                  |                                                                                             | 16  |
| Total Hours                            |                                                                                             | 120 |

Last updated Autumn 2024

Music History

| Course                                | Title                                     | Hours |
|---------------------------------------|-------------------------------------------|-------|
| Freshman                              |                                           |       |
| Autumn                                |                                           |       |
| MUSI 105                              | Music Theory I                            | 2     |
| MUSI 140                              | Aural Perception I                        | 2     |
| MUSI 135A                             | Keyboard Skills I                         | 1     |
| MUSI 195                              | Applied Study I                           | 1     |
| Lower-Division Ensemble (see advisor) |                                           | 1     |
| MUSI 194                              | Seminar (optional but highly recommended) | 1     |
| WRIT 101                              | College Writing I                         | 4     |
| General Education Course or Elective  |                                           | 3     |
| Hours                                 |                                           | 15    |

*Last updated Autumn 2024*

## Musical Studies

| Course                                                                   | Title                                                                                                                                                   | Hours          |
|--------------------------------------------------------------------------|---------------------------------------------------------------------------------------------------------------------------------------------------------|----------------|
| <b>Freshman</b>                                                          |                                                                                                                                                         |                |
| <b>Autumn</b>                                                            |                                                                                                                                                         |                |
| MUSI 105                                                                 | Music Theory I                                                                                                                                          | 2              |
| MUSI 140                                                                 | Aural Perception I                                                                                                                                      | 2              |
| MUSI 135A                                                                | Keyboard Skills I                                                                                                                                       | 1              |
| MUSI 195                                                                 | Applied Study I                                                                                                                                         | 1              |
| Lower-Division Ensemble (see advisor)                                    |                                                                                                                                                         | 1              |
| WRIT 101                                                                 | College Writing I                                                                                                                                       | 4              |
| General Education Course or Elective                                     |                                                                                                                                                         | 3              |
| MUSI 194                                                                 | Seminar (optional but highly recommended)                                                                                                               | 1              |
| <b>Hours</b>                                                             |                                                                                                                                                         | <b>15</b>      |
| <b>Spring</b>                                                            |                                                                                                                                                         |                |
| MUSI 106                                                                 | Music Theory II                                                                                                                                         | 2              |
| MUSI 141                                                                 | Aural Perception II                                                                                                                                     | 2              |
| MUSI 136A                                                                | Keyboard Skills II                                                                                                                                      | 1              |
| Lower-Division Ensemble (see advisor)                                    |                                                                                                                                                         | 1              |
| MUSI 101L<br>or MUSI 130L<br>or MUSI 132L<br>or MUSI 133<br>or MUSI 202L | Enjoyment of Music<br>or History of Jazz<br>or History of Rock & Roll<br>or Country Music: Cowboys, Opry, and Nashville<br>or Intro to Music Literature | 3              |
| General Education Course or Elective                                     |                                                                                                                                                         | 6              |
| <b>Hours</b>                                                             |                                                                                                                                                         | <b>15</b>      |
| <b>Sophomore</b>                                                         |                                                                                                                                                         |                |
| <b>Autumn</b>                                                            |                                                                                                                                                         |                |
| MUSI 205                                                                 | Music Theory III                                                                                                                                        | 2              |
| MUSI 240                                                                 | Aural Perception III                                                                                                                                    | 2              |
| MUSI 301H                                                                | Music History I                                                                                                                                         | 3              |
| MUSI 295                                                                 | Applied Study II                                                                                                                                        | 1              |
| Lower-Division Ensemble (see advisor)                                    |                                                                                                                                                         | 1              |
| Humanities requirement                                                   |                                                                                                                                                         | 3              |
| General Education Course or Elective                                     |                                                                                                                                                         | 3              |
| <b>Hours</b>                                                             |                                                                                                                                                         | <b>15</b>      |
| <b>Spring</b>                                                            |                                                                                                                                                         |                |
| MUSI 206                                                                 | Music Theory IV                                                                                                                                         | 2              |
| MUSI 241                                                                 | Aural Perception IV                                                                                                                                     | 2              |
| MUSI 302H                                                                | Music History II                                                                                                                                        | 3              |
| MUSI 295                                                                 | Applied Study II                                                                                                                                        | 1              |
| Lower-Division Ensemble (see advisor)                                    |                                                                                                                                                         | 1              |
| Upper-Division Required Performance <sup>1</sup>                         |                                                                                                                                                         | 0              |
| Humanities Requirement                                                   |                                                                                                                                                         | 3              |
| General Education Course or Elective                                     |                                                                                                                                                         | 3              |
| <b>Hours</b>                                                             |                                                                                                                                                         | <b>15</b>      |
| <b>Junior</b>                                                            |                                                                                                                                                         |                |
| <b>Autumn</b>                                                            |                                                                                                                                                         |                |
| MUSI 356                                                                 | Form & Analysis                                                                                                                                         | 2              |
| MUSI 415<br>or MUSI 416<br>or MUSI 417                                   | Music 20th Century to Present<br>or Topics in Music History<br>or Cultural Studies in Music                                                             | 3              |
| Foreign Language I                                                       |                                                                                                                                                         | 4              |
| General Education Course or Elective                                     |                                                                                                                                                         | 7              |
| <b>Hours</b>                                                             |                                                                                                                                                         | <b>16</b>      |
| <b>Spring</b>                                                            |                                                                                                                                                         |                |
| MUSI 418                                                                 | Advanced Topics in Music Theory                                                                                                                         | 2              |
| MUSI 415<br>or MUSI 416<br>or MUSI 417                                   | Music 20th Century to Present<br>or Topics in Music History<br>or Cultural Studies in Music                                                             | 3              |
| Foreign Language II                                                      |                                                                                                                                                         | 4              |
| General Education Course or Elective                                     |                                                                                                                                                         | 7              |
| <b>Hours</b>                                                             |                                                                                                                                                         | <b>16</b>      |
| <b>Senior</b>                                                            |                                                                                                                                                         |                |
| <b>Autumn</b>                                                            |                                                                                                                                                         |                |
| MUSI 415<br>or MUSI 416<br>or MUSI 417                                   | Music 20th Century to Present<br>or Topics in Music History<br>or Cultural Studies in Music                                                             | 3              |
| Upper-Division Music Elective                                            |                                                                                                                                                         | 2              |
| General Education Course or Elective                                     |                                                                                                                                                         | 10             |
| <b>Hours</b>                                                             |                                                                                                                                                         | <b>15</b>      |
| <b>Spring</b>                                                            |                                                                                                                                                         |                |
| MUSI 388                                                                 | Concert Attendance UM <sup>2</sup>                                                                                                                      | 0              |
| MUSI 499                                                                 | Senior Recital/Capstone Project (Senior Research Project)                                                                                               | 1-4            |
| General Education Course or Elective                                     |                                                                                                                                                         | 12             |
| <b>Hours</b>                                                             |                                                                                                                                                         | <b>13-16</b>   |
| <b>Total Hours</b>                                                       |                                                                                                                                                         | <b>120-123</b> |

|                                                                                             |            |
|---------------------------------------------------------------------------------------------|------------|
| General Education Course or Elective                                                        | 6          |
| <b>Hours</b>                                                                                | <b>15</b>  |
| <b>Senior</b>                                                                               |            |
| <b>Autumn</b>                                                                               |            |
| MUSI 415<br>or MUSI 416<br>or MUSI 417                                                      | 3          |
| Music 20th Century to Present<br>or Topics in Music History<br>or Cultural Studies in Music |            |
| General Education Course or Elective                                                        | 12         |
| <b>Hours</b>                                                                                | <b>15</b>  |
| <b>Spring</b>                                                                               |            |
| MUSI 388                                                                                    | 0          |
| Concert Attendance UM <sup>2</sup>                                                          |            |
| Upper-Division Music Elective                                                               | 3          |
| General Education Course or Elective                                                        | 12         |
| <b>Hours</b>                                                                                | <b>15</b>  |
| <b>Total Hours</b>                                                                          | <b>120</b> |

*Last updated Autumn 2024*

<sup>1</sup> All music students must complete MUSI 296 to proceed to 300-level courses and above.

<sup>2</sup> All music students must attend 100 concerts or recitals to complete MUSI 388

## Music B.A. - Instrumental Jazz Studies

### General Degree Requirements

To earn a baccalaureate degree, all students must complete successfully, in addition to any other requirements, the University of Montana General Education Requirements. Please refer to the General Education Requirements page (p. 39) for more information.

Additional requirements for graduation can be found on the Degree/Certificate Requirements for Graduation page (p. 36).

Unless otherwise noted in individual program requirements, a minimum grade point average of 2.00 in all work attempted at the University of Montana-Missoula is required for graduation. Please see the Academic Policies and Procedures page (p. 25) for information on how your GPA is calculated.

Courses taken to satisfy the requirements of a major, minor, or certificate program must be completed with a grade of C- or better unless a higher grade is noted in the program requirements.

### Bachelor of Arts - Music; Instrumental Jazz Studies Concentration

- This major has a minimum cumulative institutional GPA requirement of 2.75.
- Students must complete 51 Credits of non-music (MUSI, MUSE, MUST) courses.

#### Course Requirements

| Code                           | Title   | Hours |
|--------------------------------|---------|-------|
| <b>First Year Seminar</b>      |         |       |
| Complete the following course: |         |       |
| MUSI 194                       | Seminar | 1     |

#### Applied

Complete all of the following courses:

|          |                  |   |
|----------|------------------|---|
| MUSI 195 | Applied Study I  | 2 |
| MUSI 295 | Applied Study II | 2 |

#### Music Theory

Complete all of the following courses:

|          |                  |   |
|----------|------------------|---|
| MUSI 105 | Music Theory I   | 2 |
| MUSI 106 | Music Theory II  | 2 |
| MUSI 205 | Music Theory III | 2 |

#### Aural Perception

Complete all of the following courses:

|          |                      |   |
|----------|----------------------|---|
| MUSI 140 | Aural Perception I   | 2 |
| MUSI 141 | Aural Perception II  | 2 |
| MUSI 240 | Aural Perception III | 2 |

#### Keyboard Skills

|           |                    |   |
|-----------|--------------------|---|
| MUSI 135A | Keyboard Skills I  | 1 |
| MUSI 136A | Keyboard Skills II | 1 |

#### Assessment

Complete the following assessment, which is required to advance to upper-division study:

|          |                                     |   |
|----------|-------------------------------------|---|
| MUSI 296 | Upper-Division Required Performance | 0 |
|----------|-------------------------------------|---|

#### Literature, Form, Analysis

Complete the following course:

|           |                 |   |
|-----------|-----------------|---|
| MUSI 130L | History of Jazz | 3 |
|-----------|-----------------|---|

#### Ensembles Requirement

Students must enroll in a minimum of one qualifying ensemble each semester while registered as a full-time student, resulting in at least 8 semesters of ensemble participation to satisfy degree requirements. Qualifying ensembles are determined by a student's auditioned principal instrument in consultation with their faculty mentor and academic advisor.

##### Lower-Division

|                                                |                       |   |
|------------------------------------------------|-----------------------|---|
| Complete 4 credits from the following courses: |                       | 4 |
| MUSI 108A                                      | Orchestra: UMSO       |   |
| MUSI 112A                                      | Choir                 |   |
| MUSI 114A                                      | Band: UM Concert Band |   |
| MUSI 162A                                      | Chamber Ensembles I   |   |

##### Upper-Division

|                                             |                           |   |
|---------------------------------------------|---------------------------|---|
| Complete 4 credits of the following course: |                           | 4 |
| MUSI 331                                    | Jazz Ensembles: Big Bands |   |

#### History and Culture

Complete the following course:

|           |                  |   |
|-----------|------------------|---|
| MUSI 302H | Music History II | 3 |
|-----------|------------------|---|

#### Writing in the Disciplines Requirement

Complete one of the following courses:

|          |                               |  |
|----------|-------------------------------|--|
| MUSI 415 | Music 20th Century to Present |  |
| MUSI 416 | Topics in Music History       |  |
| MUSI 417 | Cultural Studies in Music     |  |

#### Jazz Core Requirements

Complete all of the following courses:

|           |                                                   |   |
|-----------|---------------------------------------------------|---|
| MUSI 162A | Chamber Ensembles I                               | 2 |
| MUSI 360  | Jazz Theory & Improvisation I (equivalent to 225) | 2 |
| MUSI 362  | Chamber Ensemble III: UM (Jazz)                   | 1 |

|                                                                                                                                                                                                                                                                                    |                                 |           |
|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|---------------------------------|-----------|
| MUSI 395                                                                                                                                                                                                                                                                           | Applied Study III (Jazz)        | 2         |
| MUSI 420                                                                                                                                                                                                                                                                           | Jazz Pedagogy                   | 3         |
| MUSI 460                                                                                                                                                                                                                                                                           | Jazz Theory & Improvisation II  | 2         |
| MUSI 470                                                                                                                                                                                                                                                                           | Jazz Arranging & Composition    | 3         |
| <b>Concert Attendance</b>                                                                                                                                                                                                                                                          |                                 |           |
| All students majoring in Music are required to attend a minimum of 100 approved recitals/concerts prior to graduation. Upon completion of this requirement, students should register for the following course, which is typically taken in their final semester before graduation. |                                 |           |
| MUSI 388                                                                                                                                                                                                                                                                           | Concert Attendance UM           | 0         |
| <b>Capstone</b>                                                                                                                                                                                                                                                                    |                                 |           |
| Complete the following course:                                                                                                                                                                                                                                                     |                                 |           |
| MUSI 499                                                                                                                                                                                                                                                                           | Senior Recital/Capstone Project | 1         |
| <b>Total Hours</b>                                                                                                                                                                                                                                                                 |                                 | <b>52</b> |

## Bachelor of Music Education

Individuals interested in teaching in K-12 schools must complete a degree in the content area they want to teach plus the Teacher Education Program through the Department of Teaching and Learning. Individuals must complete the teaching track within that degree program, which may contain different course requirements than the non-teaching track since the sequence of courses is designed to meet state standards. Upon completion of the degree program with the teaching track and the secondary licensure program, one will be eligible for a standard Montana teaching license in this content area.

- Secondary Education Licensure Program (<https://www.umt.edu/education/departments/teaching-and-learning/tep/default.php>)
- Licensure Degree Requirements (p. 151)

## General Degree Requirements

To earn a baccalaureate degree, all students must complete successfully, in addition to any other requirements, the University of Montana General Education Requirements. Please refer to the General Education Requirements page (p. 39) for more information.

Additional requirements for graduation can be found on the Degree/Certificate Requirements for Graduation page (p. 36).

Unless otherwise noted in individual program requirements, a minimum grade point average of 2.00 in all work attempted at the University of Montana-Missoula is required for graduation. Please see the Academic Policies and Procedures page (p. 25) for information on how your GPA is calculated.

Courses taken to satisfy the requirements of a major, minor, or certificate program must be completed with a grade of C- or better unless a higher grade is noted in the program requirements.

## Bachelor of Music Education

- This major has a minimum cumulative institutional GPA requirement of 2.75.
- All majors seeking an undergraduate degree in music and who are registered for 5 or more credits must participate in an ensemble specified by their degree curriculum each autumn and spring semester of residence. One credit must be taken each semester for two credits each year.

## Course Requirements

| Code                                   | Title                                                                  | Hours |
|----------------------------------------|------------------------------------------------------------------------|-------|
| <b>Music Theory</b>                    |                                                                        |       |
| Complete all of the following courses: |                                                                        |       |
| MUSI 105                               | Music Theory I                                                         | 2     |
| MUSI 106                               | Music Theory II                                                        | 2     |
| MUSI 205                               | Music Theory III                                                       | 2     |
| MUSI 206                               | Music Theory IV                                                        | 2     |
| <b>Keyboard Skills</b>                 |                                                                        |       |
| Complete one of the following courses: |                                                                        | 1     |
| MUSI 135A                              | Keyboard Skills I                                                      |       |
| MUSI 332                               | Advanced Functional Piano (keyboard principals should take MUSI 332)   |       |
| Complete one of the following courses: |                                                                        | 1-3   |
| MUSI 136A                              | Keyboard Skills II                                                     |       |
| MUSI 435                               | Piano Methods & Materials I (keyboard principals should take MUSI 435) |       |
| Complete all of the following courses: |                                                                        |       |
| MUSI 235                               | Keyboard Skills III                                                    | 1     |
| MUSI 236                               | Keyboard Skills IV                                                     | 1     |
| <b>Aural Perception</b>                |                                                                        |       |
| Complete all of the following courses: |                                                                        |       |
| MUSI 140                               | Aural Perception I                                                     | 2     |
| MUSI 141                               | Aural Perception II                                                    | 2     |
| MUSI 240                               | Aural Perception III                                                   | 2     |
| MUSI 241                               | Aural Perception IV                                                    | 2     |
| <b>Methods and Literature</b>          |                                                                        |       |
| Complete all of the following courses: |                                                                        |       |
| MUSE 100                               | Introduction to Music Education                                        | 2     |
| MUSE 333                               | General Music Methods & Materials I                                    | 2     |
| MUSE 334                               | General Music Methods & Materials II                                   | 2     |
| MUSE 425                               | Technology and Materials                                               | 2     |
| MUSE 497                               | Methods                                                                | 4     |
| MUSI 440                               | Orchestration                                                          | 2     |
| <b>Conducting</b>                      |                                                                        |       |
| Complete all of the following courses: |                                                                        |       |
| MUSI 335                               | Instrumental Conducting                                                | 2     |
| MUSI 336                               | Choral Conducting                                                      | 2     |
| <b>Music History</b>                   |                                                                        |       |
| Complete one of the following courses: |                                                                        | 3     |
| MUSI 101L                              | Enjoyment of Music                                                     |       |
| MUSI 130L                              | History of Jazz                                                        |       |
| MUSI 132L                              | History of Rock & Roll                                                 |       |
| MUSI 133                               | Country Music: Cowboys, Opry, and Nashville                            |       |
| MUSI 202L                              | Intro to Music Literature                                              |       |
| Complete all of the following courses: |                                                                        |       |
| MUSI 301H                              | Music History I                                                        | 3     |
| MUSI 302H                              | Music History II                                                       | 3     |
| <b>Marching Band <sup>1</sup></b>      |                                                                        |       |
| Complete the following course:         |                                                                        |       |
| MUSI 155A                              | Grizzly Marching Band                                                  | 1-2   |



**Applied Study**

Complete all of the following courses:

|          |                                                                                   |   |
|----------|-----------------------------------------------------------------------------------|---|
| MUSI 195 | Applied Study I (1 credit each semester in the first year of study)               | 2 |
| MUSI 295 | Applied Study II (1 credit each semester in the second year of study)             | 2 |
| MUSI 395 | Applied Study III (taken in fall of the third year)                               | 1 |
| MUSI 296 | Upper-Division Required Performance (required to advance to upper-division study) | 0 |

**Concert Attendance**

All students majoring in Music are required to attend in a minimum of 100 approved recitals/concerts prior to graduation. During the 4th year in an undergraduate degree program and upon completion of this requirement, students should register for the following course:

|          |                       |   |
|----------|-----------------------|---|
| MUSI 388 | Concert Attendance UM | 0 |
|----------|-----------------------|---|

**Ensembles**

Students must enroll in a minimum of one qualifying ensemble each semester while registered as a full-time student prior to student teaching, resulting in at least 7 semesters of ensemble participation to satisfy degree requirements. Qualifying ensembles are determined by a student's auditioned principal instrument in consultation with their faculty mentor and academic advisor.

**Lower-Division Ensemble Requirement**

Complete 4 credits over four semesters in one of the following courses:

|           |                                                   |
|-----------|---------------------------------------------------|
| MUSI 108A | Orchestra: UMSO (String principals)               |
| MUSI 110A | Opera Theatre I (Voice principals)                |
|           | or MUSI 112 Choir                                 |
| MUSI 114A | Band: UM Concert Band (Instrumental principals)   |
| MUSI 162A | Chamber Ensembles I (Piano and guitar principals) |

**Upper-Division Ensemble Requirement <sup>2</sup>**

Complete 3 credits over three semesters in the following courses:

|          |                                                        |
|----------|--------------------------------------------------------|
| MUSI 308 | Orchestras II: UM (String principals)                  |
| MUSI 310 | Opera Theatre II (Voice principals)                    |
|          | or MUSI 312 Choir III                                  |
| MUSI 314 | Band III: UM Concert Band (Instrumental principals)    |
| MUSI 331 | Jazz Ensembles: Big Bands                              |
| MUSI 362 | Chamber Ensemble III: UM (Piano and guitar principals) |

**Advanced Writing Requirement**

Complete one of the following courses:

|          |                               |
|----------|-------------------------------|
| MUSI 415 | Music 20th Century to Present |
| MUSI 416 | Topics in Music History       |
| MUSI 417 | Cultural Studies in Music     |

**Techniques Courses**

Complete all of the following courses. Students are waived from taking techniques courses in their primary area.

|          |                                                      |   |
|----------|------------------------------------------------------|---|
| MUSE 120 | Techniques: String Instruments in Classical Music I  | 1 |
| MUSE 121 | Techniques: String Instruments in Classical Music II | 1 |
| MUSE 123 | Techniques: Voice                                    | 1 |
| MUSE 126 | Techniques: Percussion Instruments I                 | 1 |
| MUSE 127 | Techniques: Percussion Instruments II                | 1 |
| MUSE 274 | Techniques: Upper Brass                              | 1 |
| MUSE 275 | Techniques: Lower Brass                              | 1 |
| MUSE 280 | Techniques: Woodwinds – Clarinet and Saxophone       | 1 |
| MUSE 281 | Techniques: Woodwinds - Double Reed and Flute        | 1 |

**Total Hours** **69-72**

<sup>1</sup> String, Voice, and Keyboard principals are required to take only 1 credit of MUSI 155A. Wind and percussion principals must take 2.

<sup>2</sup> These are to be taken for 1 credit each semester for a total of two credits during the the third year and for 1 credit during the Fall semester of the 4th year.

**Secondary Teaching Licensure**

For endorsement to teach this subject, a student also must gain admission to the Teacher Education Program and meet all the requirements for secondary teaching licensure (p. 151). For more information, see the Teaching and Learning Department webpage (<https://www.umt.edu/education/departments/currinst/default.php>).

**Composition B.M. - Contemporary Classical****General Degree Requirements**

To earn a baccalaureate degree, all students must complete successfully, in addition to any other requirements, the University of Montana General Education Requirements. Please refer to the General Education Requirements page (p. 39) for more information.

Additional requirements for graduation can be found on the Degree/Certificate Requirements for Graduation page (p. 36).

Unless otherwise noted in individual program requirements, a minimum grade point average of 2.00 in all work attempted at the University of Montana-Missoula is required for graduation. Please see the Academic Policies and Procedures page (p. 25) for information on how your GPA is calculated.

Courses taken to satisfy the requirements of a major, minor, or certificate program must be completed with a grade of C- or better unless a higher grade is noted in the program requirements.

**Bachelor of Music - Composition; Concentration in Contemporary Classical Music**

- This major has a minimum cumulative institutional GPA requirement of 2.75.

## Course Requirements

| Code                                                                                                                                                                                                                                                                                                                                                               | Title                                                                             | Hours |
|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-----------------------------------------------------------------------------------|-------|
| <b>Freshman Seminar</b>                                                                                                                                                                                                                                                                                                                                            |                                                                                   |       |
| Complete the following course:                                                                                                                                                                                                                                                                                                                                     |                                                                                   |       |
| MUSI 194                                                                                                                                                                                                                                                                                                                                                           | Seminar                                                                           | 1     |
| <b>Music Theory</b>                                                                                                                                                                                                                                                                                                                                                |                                                                                   |       |
| Complete all of the following courses:                                                                                                                                                                                                                                                                                                                             |                                                                                   |       |
| MUSI 105                                                                                                                                                                                                                                                                                                                                                           | Music Theory I                                                                    | 2     |
| MUSI 106                                                                                                                                                                                                                                                                                                                                                           | Music Theory II                                                                   | 2     |
| MUSI 205                                                                                                                                                                                                                                                                                                                                                           | Music Theory III                                                                  | 2     |
| MUSI 206                                                                                                                                                                                                                                                                                                                                                           | Music Theory IV                                                                   | 2     |
| <b>Aural Perception</b>                                                                                                                                                                                                                                                                                                                                            |                                                                                   |       |
| Complete all of the following courses:                                                                                                                                                                                                                                                                                                                             |                                                                                   |       |
| MUSI 140                                                                                                                                                                                                                                                                                                                                                           | Aural Perception I                                                                | 2     |
| MUSI 141                                                                                                                                                                                                                                                                                                                                                           | Aural Perception II                                                               | 2     |
| MUSI 240                                                                                                                                                                                                                                                                                                                                                           | Aural Perception III                                                              | 2     |
| MUSI 241                                                                                                                                                                                                                                                                                                                                                           | Aural Perception IV                                                               | 2     |
| <b>Keyboard Skills</b>                                                                                                                                                                                                                                                                                                                                             |                                                                                   |       |
| MUSI 135A                                                                                                                                                                                                                                                                                                                                                          | Keyboard Skills I                                                                 | 1     |
| MUSI 136A                                                                                                                                                                                                                                                                                                                                                          | Keyboard Skills II                                                                | 1     |
| MUSI 235                                                                                                                                                                                                                                                                                                                                                           | Keyboard Skills III                                                               | 1     |
| MUSI 236                                                                                                                                                                                                                                                                                                                                                           | Keyboard Skills IV                                                                | 1     |
| <b>Music History and Culture</b>                                                                                                                                                                                                                                                                                                                                   |                                                                                   |       |
| Complete all of the following courses:                                                                                                                                                                                                                                                                                                                             |                                                                                   |       |
| MUSI 207X                                                                                                                                                                                                                                                                                                                                                          | World Music (equiv to 307)                                                        | 3     |
| MUSI 301H                                                                                                                                                                                                                                                                                                                                                          | Music History I                                                                   | 3     |
| MUSI 302H                                                                                                                                                                                                                                                                                                                                                          | Music History II                                                                  | 3     |
| <b>Upper-Division Required Performance</b>                                                                                                                                                                                                                                                                                                                         |                                                                                   |       |
| Complete the following course:                                                                                                                                                                                                                                                                                                                                     |                                                                                   |       |
| MUSI 296                                                                                                                                                                                                                                                                                                                                                           | Upper-Division Required Performance (required to advance to upper-division study) | 0     |
| <b>Ensembles Requirement</b>                                                                                                                                                                                                                                                                                                                                       |                                                                                   |       |
| Students must enroll in a minimum of one qualifying ensemble each semester while registered as a full-time student, resulting in at least 7 semesters of ensemble participation to satisfy degree requirements. Qualifying ensembles are determined by a student's auditioned principal instrument in consultation with their faculty mentor and academic advisor. |                                                                                   |       |
| <b>Lower Division</b>                                                                                                                                                                                                                                                                                                                                              |                                                                                   |       |
| Complete 4 credits over four semesters in the following courses:                                                                                                                                                                                                                                                                                                   |                                                                                   | 4     |
| MUSI 108A                                                                                                                                                                                                                                                                                                                                                          | Orchestra: UMSO (String principals)                                               |       |
| MUSI 112A                                                                                                                                                                                                                                                                                                                                                          | Choir                                                                             |       |
| MUSI 114A                                                                                                                                                                                                                                                                                                                                                          | Band: UM Concert Band (Instrumental principals)                                   |       |
| MUSI 162A                                                                                                                                                                                                                                                                                                                                                          | Chamber Ensembles I (Piano and guitar principals)                                 |       |
| <b>Upper Division</b>                                                                                                                                                                                                                                                                                                                                              |                                                                                   |       |
| Complete 3 credits over three semesters of the following courses:                                                                                                                                                                                                                                                                                                  |                                                                                   | 3     |
| MUSI 308                                                                                                                                                                                                                                                                                                                                                           | Orchestras II: UM (String principals)                                             |       |
| MUSI 310                                                                                                                                                                                                                                                                                                                                                           | Opera Theatre II (Voice principals)                                               |       |

|                                                                                                                                                                                                                                                                              |                                                        |    |
|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|--------------------------------------------------------|----|
| or MUSI 312 Choir III                                                                                                                                                                                                                                                        |                                                        |    |
| MUSI 314                                                                                                                                                                                                                                                                     | Band III: UM Concert Band (Instrumental principals)    |    |
| MUSI 331                                                                                                                                                                                                                                                                     | Jazz Ensembles: Big Bands (Jazz principals)            |    |
| MUSI 362                                                                                                                                                                                                                                                                     | Chamber Ensemble III: UM (Piano and guitar principals) |    |
| <b>Concert Attendance</b>                                                                                                                                                                                                                                                    |                                                        |    |
| All students majoring in music are required to attend in a minimum of 100 approved recitals/concerts prior to graduation. During the 4th year in an undergraduate degree program and upon completion of this requirement, students should register for the following course: |                                                        |    |
| MUSI 388                                                                                                                                                                                                                                                                     | Concert Attendance UM                                  | 0  |
| <b>Capstone</b>                                                                                                                                                                                                                                                              |                                                        |    |
| Complete the following course:                                                                                                                                                                                                                                               |                                                        |    |
| MUSI 499                                                                                                                                                                                                                                                                     | Senior Recital/Capstone Project                        | 1  |
| <b>Composition</b>                                                                                                                                                                                                                                                           |                                                        |    |
| Complete all of the following courses:                                                                                                                                                                                                                                       |                                                        |    |
| MUSI 180                                                                                                                                                                                                                                                                     | Composition I                                          | 2  |
| MUSI 280                                                                                                                                                                                                                                                                     | Composition II                                         | 2  |
| MUSI 380                                                                                                                                                                                                                                                                     | Composition III                                        | 2  |
| MUSI 480                                                                                                                                                                                                                                                                     | Composition IV (completed over 3 semesters)            | 6  |
| MUSI 407                                                                                                                                                                                                                                                                     | Counterpoint I                                         | 3  |
| MUSI 440                                                                                                                                                                                                                                                                     | Orchestration                                          | 2  |
| <b>Applied Study</b>                                                                                                                                                                                                                                                         |                                                        |    |
| Complete all of the following courses:                                                                                                                                                                                                                                       |                                                        |    |
| MUSI 195                                                                                                                                                                                                                                                                     | Applied Study I (over two semesters)                   | 2  |
| MUSI 295                                                                                                                                                                                                                                                                     | Applied Study II (over two semesters)                  | 2  |
| MUSI 395                                                                                                                                                                                                                                                                     | Applied Study III                                      | 1  |
| <b>Music Technology</b>                                                                                                                                                                                                                                                      |                                                        |    |
| Complete all of the following courses:                                                                                                                                                                                                                                       |                                                        |    |
| MUST 110                                                                                                                                                                                                                                                                     | Digital Audio & Multitracking                          | 2  |
| or MART 245                                                                                                                                                                                                                                                                  | Sound Production & Design Fundamentals                 |    |
| MUST 210                                                                                                                                                                                                                                                                     | Sequencing, Synthesis, and Sampling                    | 2  |
| MUST 410                                                                                                                                                                                                                                                                     | Designing the Show                                     | 2  |
| <b>Conducting</b>                                                                                                                                                                                                                                                            |                                                        |    |
| Complete one of the following courses:                                                                                                                                                                                                                                       |                                                        |    |
| MUSI 335                                                                                                                                                                                                                                                                     | Instrumental Conducting                                |    |
| MUSI 336                                                                                                                                                                                                                                                                     | Choral Conducting                                      |    |
| <b>Theory and Analysis</b>                                                                                                                                                                                                                                                   |                                                        |    |
| Complete all of the following courses:                                                                                                                                                                                                                                       |                                                        |    |
| MUSI 415                                                                                                                                                                                                                                                                     | Music 20th Century to Present                          | 3  |
| MUSI 418                                                                                                                                                                                                                                                                     | Advanced Topics in Music Theory                        | 2  |
| <b>Composition Electives</b>                                                                                                                                                                                                                                                 |                                                        |    |
| Complete two of the following courses:                                                                                                                                                                                                                                       |                                                        |    |
| MUSI 317                                                                                                                                                                                                                                                                     | Songwriting                                            |    |
| MUSI 356                                                                                                                                                                                                                                                                     | Form & Analysis                                        |    |
| MUSI 460                                                                                                                                                                                                                                                                     | Jazz Theory & Improvisation II                         |    |
| <b>General Music Elective(s)</b>                                                                                                                                                                                                                                             |                                                        |    |
| Complete 2 credits in any upper-division music course.                                                                                                                                                                                                                       |                                                        |    |
| <b>Total Hours</b>                                                                                                                                                                                                                                                           |                                                        |    |
|                                                                                                                                                                                                                                                                              |                                                        | 79 |

# Composition B.M. - Pop and Commercial

## General Degree Requirements

To earn a baccalaureate degree, all students must complete successfully, in addition to any other requirements, the University of Montana General Education Requirements. Please refer to the General Education Requirements page (p. 39) for more information.

Additional requirements for graduation can be found on the Degree/Certificate Requirements for Graduation page (p. 36).

Unless otherwise noted in individual program requirements, a minimum grade point average of 2.00 in all work attempted at the University of Montana-Missoula is required for graduation. Please see the Academic Policies and Procedures page (p. 25) for information on how your GPA is calculated.

Courses taken to satisfy the requirements of a major, minor, or certificate program must be completed with a grade of C- or better unless a higher grade is noted in the program requirements.

## Bachelor of Music - Composition; Concentration in Pop and Commercial Music

- This major has a minimum cumulative institutional GPA requirement of 2.75.

### Course Requirements

| Code                                   | Title                      | Hours |
|----------------------------------------|----------------------------|-------|
| <b>Freshman Seminar</b>                |                            |       |
| Complete the following course:         |                            |       |
| MUSI 194                               | Seminar                    | 1     |
| <b>Music Theory</b>                    |                            |       |
| Complete all of the following courses: |                            |       |
| MUSI 105                               | Music Theory I             | 2     |
| MUSI 106                               | Music Theory II            | 2     |
| MUSI 205                               | Music Theory III           | 2     |
| MUSI 206                               | Music Theory IV            | 2     |
| <b>Aural Perception</b>                |                            |       |
| Complete all of the following courses: |                            |       |
| MUSI 140                               | Aural Perception I         | 2     |
| MUSI 141                               | Aural Perception II        | 2     |
| MUSI 240                               | Aural Perception III       | 2     |
| MUSI 241                               | Aural Perception IV        | 2     |
| <b>Keyboard Skills</b>                 |                            |       |
| Complete all of the following courses: |                            |       |
| MUSI 135A                              | Keyboard Skills I          | 1     |
| MUSI 136A                              | Keyboard Skills II         | 1     |
| MUSI 235                               | Keyboard Skills III        | 1     |
| MUSI 236                               | Keyboard Skills IV         | 1     |
| <b>Music History and Culture</b>       |                            |       |
| Complete all of the following courses: |                            |       |
| MUSI 207X                              | World Music (equiv to 307) | 3     |

|           |                  |   |
|-----------|------------------|---|
| MUSI 301H | Music History I  | 3 |
| MUSI 302H | Music History II | 3 |

### Upper-Division Required Performance

Complete the following course:

|          |                                                                                   |   |
|----------|-----------------------------------------------------------------------------------|---|
| MUSI 296 | Upper-Division Required Performance (required to advance to upper-division study) | 0 |
|----------|-----------------------------------------------------------------------------------|---|

### Ensembles

Students must enroll in a minimum of one qualifying ensemble each semester while registered as a full-time student, resulting in at least 7 semesters of ensemble participation to satisfy degree requirements. Qualifying ensembles are determined by a student's auditioned principal instrument in consultation with their faculty mentor and academic advisor.

#### Lower Division

Complete 4 credits over four semesters in the following courses: 4

|           |                                                   |
|-----------|---------------------------------------------------|
| MUSI 108A | Orchestra: UMSO (String principals)               |
| MUSI 112A | Choir (Voice principals)                          |
| MUSI 114A | Band: UM Concert Band (Instrumental principals)   |
| MUSI 162A | Chamber Ensembles I (Piano and guitar principals) |

#### Upper Division

Complete 3 credits over three semesters of the following courses: 3

|                       |                                                        |
|-----------------------|--------------------------------------------------------|
| MUSI 308              | Orchestras II: UM (String principals)                  |
| MUSI 310              | Opera Theatre II (Voice principals)                    |
| or MUSI 312 Choir III |                                                        |
| MUSI 314              | Band III: UM Concert Band (Instrumental principals)    |
| MUSI 331              | Jazz Ensembles: Big Bands (Jazz principals)            |
| MUSI 362              | Chamber Ensemble III: UM (Piano and guitar principals) |

### Concert Attendance

All students majoring in music are required to attend in a minimum of 100 approved recitals/concerts prior to graduation. During the 4th year in an undergraduate degree program and upon completion of this requirement, students should register for the following course:

|          |                       |   |
|----------|-----------------------|---|
| MUSI 388 | Concert Attendance UM | 0 |
|----------|-----------------------|---|

### Capstone

Complete the following course:

|          |                                 |   |
|----------|---------------------------------|---|
| MUSI 499 | Senior Recital/Capstone Project | 2 |
|----------|---------------------------------|---|

### Composition

Complete all of the following courses:

|          |                                   |   |
|----------|-----------------------------------|---|
| MUSI 180 | Composition I                     | 2 |
| MUSI 280 | Composition II                    | 2 |
| MUSI 317 | Songwriting                       | 2 |
| MUSI 480 | Composition IV (over 3 semesters) | 6 |
| MUSI 407 | Counterpoint I                    | 3 |
| MUSI 440 | Orchestration                     | 2 |

### Applied Study

Complete all of the following courses:

|          |                                     |   |
|----------|-------------------------------------|---|
| MUSI 195 | Applied Study I (over 2 semesters)  | 2 |
| MUSI 295 | Applied Study II (over 2 semesters) | 2 |
| MUSI 395 | Applied Study III                   | 1 |

#### Music Technology

Complete all of the following courses:

|             |                                             |   |
|-------------|---------------------------------------------|---|
| MUST 110    | Digital Audio & Multitracking               | 2 |
| or MART 245 | Sound Production & Design Fundamentals      |   |
| MUST 210    | Sequencing, Synthesis, and Sampling         | 2 |
| MUST 310    | Interactivity and Digital Signal Processing | 2 |
| MUST 410    | Designing the Show                          | 2 |

#### Topics in Music History

|                                        |                           |   |
|----------------------------------------|---------------------------|---|
| Complete one of the following courses: |                           | 3 |
| MUSI 416                               | Topics in Music History   |   |
| MUSI 417                               | Cultural Studies in Music |   |

#### Theory and Analysis

Complete the following course:

|          |                                 |   |
|----------|---------------------------------|---|
| MUSI 418 | Advanced Topics in Music Theory | 2 |
|----------|---------------------------------|---|

#### Media Design and Marketing

Complete all of the following courses:

|          |                                 |   |
|----------|---------------------------------|---|
| BMKT 420 | Integrated Online Marketing     | 3 |
| MART 340 | Principles of Interactive Media | 3 |

#### General Music Elective(s)

|                                                        |  |   |
|--------------------------------------------------------|--|---|
| Complete 2 credits of any upper-division music course. |  | 2 |
|--------------------------------------------------------|--|---|

**Total Hours** **82**

## Performance B.M. - Instrumental General Degree Requirements

To earn a baccalaureate degree, all students must complete successfully, in addition to any other requirements, the University of Montana General Education Requirements. Please refer to the General Education Requirements page (p. 39) for more information.

Additional requirements for graduation can be found on the Degree/Certificate Requirements for Graduation page (p. 36).

Unless otherwise noted in individual program requirements, a minimum grade point average of 2.00 in all work attempted at the University of Montana-Missoula is required for graduation. Please see the Academic Policies and Procedures page (p. 25) for information on how your GPA is calculated.

Courses taken to satisfy the requirements of a major, minor, or certificate program must be completed with a grade of C- or better unless a higher grade is noted in the program requirements.

## Bachelor of Music - Performance; Concentration in Instrumental Performance

- This major has a minimum cumulative institutional GPA requirement of 2.75.

## Course Requirements

| Code                                                                                                                                                                                                                                                                                                                                                               | Title                                                                             | Hours |
|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-----------------------------------------------------------------------------------|-------|
| <b>Freshman Seminar</b>                                                                                                                                                                                                                                                                                                                                            |                                                                                   |       |
| Complete the following course:                                                                                                                                                                                                                                                                                                                                     |                                                                                   |       |
| MUSI 194                                                                                                                                                                                                                                                                                                                                                           | Seminar                                                                           | 1     |
| <b>Music Theory</b>                                                                                                                                                                                                                                                                                                                                                |                                                                                   |       |
| Complete all of the following courses:                                                                                                                                                                                                                                                                                                                             |                                                                                   |       |
| MUSI 105                                                                                                                                                                                                                                                                                                                                                           | Music Theory I                                                                    | 2     |
| MUSI 106                                                                                                                                                                                                                                                                                                                                                           | Music Theory II                                                                   | 2     |
| MUSI 205                                                                                                                                                                                                                                                                                                                                                           | Music Theory III                                                                  | 2     |
| MUSI 206                                                                                                                                                                                                                                                                                                                                                           | Music Theory IV                                                                   | 2     |
| <b>Aural Perception</b>                                                                                                                                                                                                                                                                                                                                            |                                                                                   |       |
| Complete all of the following courses:                                                                                                                                                                                                                                                                                                                             |                                                                                   |       |
| MUSI 140                                                                                                                                                                                                                                                                                                                                                           | Aural Perception I                                                                | 2     |
| MUSI 141                                                                                                                                                                                                                                                                                                                                                           | Aural Perception II                                                               | 2     |
| MUSI 240                                                                                                                                                                                                                                                                                                                                                           | Aural Perception III                                                              | 2     |
| MUSI 241                                                                                                                                                                                                                                                                                                                                                           | Aural Perception IV                                                               | 2     |
| <b>Keyboard Skills</b>                                                                                                                                                                                                                                                                                                                                             |                                                                                   |       |
| Complete all of the following courses:                                                                                                                                                                                                                                                                                                                             |                                                                                   |       |
| MUSI 135A                                                                                                                                                                                                                                                                                                                                                          | Keyboard Skills I                                                                 | 1     |
| MUSI 136A                                                                                                                                                                                                                                                                                                                                                          | Keyboard Skills II                                                                | 1     |
| MUSI 235                                                                                                                                                                                                                                                                                                                                                           | Keyboard Skills III                                                               | 1     |
| MUSI 236                                                                                                                                                                                                                                                                                                                                                           | Keyboard Skills IV                                                                | 1     |
| <b>Music History and Culture</b>                                                                                                                                                                                                                                                                                                                                   |                                                                                   |       |
| Complete all of the following courses:                                                                                                                                                                                                                                                                                                                             |                                                                                   |       |
| MUSI 207X                                                                                                                                                                                                                                                                                                                                                          | World Music (equiv to 307)                                                        | 3     |
| MUSI 301H                                                                                                                                                                                                                                                                                                                                                          | Music History I                                                                   | 3     |
| MUSI 302H                                                                                                                                                                                                                                                                                                                                                          | Music History II                                                                  | 3     |
| <b>Assessment</b>                                                                                                                                                                                                                                                                                                                                                  |                                                                                   |       |
| Complete the following course:                                                                                                                                                                                                                                                                                                                                     |                                                                                   |       |
| MUSI 296                                                                                                                                                                                                                                                                                                                                                           | Upper-Division Required Performance (required to advance to upper-division study) | 0     |
| <b>Literature, Form, and Analysis</b>                                                                                                                                                                                                                                                                                                                              |                                                                                   |       |
| Complete one of the following courses:                                                                                                                                                                                                                                                                                                                             |                                                                                   | 2-3   |
| MUSI 356                                                                                                                                                                                                                                                                                                                                                           | Form & Analysis                                                                   |       |
| MUSI 418                                                                                                                                                                                                                                                                                                                                                           | Advanced Topics in Music Theory                                                   |       |
| MUSI 460                                                                                                                                                                                                                                                                                                                                                           | Jazz Theory & Improvisation II                                                    |       |
| <b>Ensembles</b>                                                                                                                                                                                                                                                                                                                                                   |                                                                                   |       |
| Students must enroll in a minimum of one qualifying ensemble each semester while registered as a full-time student, resulting in at least 8 semesters of ensemble participation to satisfy degree requirements. Qualifying ensembles are determined by a student's auditioned principal instrument in consultation with their faculty mentor and academic advisor. |                                                                                   |       |
| <b>Lower Division</b>                                                                                                                                                                                                                                                                                                                                              |                                                                                   |       |
| Complete 4 credits over four semesters in the following courses:                                                                                                                                                                                                                                                                                                   |                                                                                   | 4     |
| MUSI 108A                                                                                                                                                                                                                                                                                                                                                          | Orchestra: UMSO (String principals)                                               |       |
| MUSI 112A                                                                                                                                                                                                                                                                                                                                                          | Choir (Voice principals)                                                          |       |
| MUSI 114A                                                                                                                                                                                                                                                                                                                                                          | Band: UM Concert Band (Instrumental principals)                                   |       |

|                                                                                                                                                                                                                                                                              |                                                        |              |
|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|--------------------------------------------------------|--------------|
| MUSI 162A                                                                                                                                                                                                                                                                    | Chamber Ensembles I (Piano and guitar principals)      |              |
| <b>Upper Division</b>                                                                                                                                                                                                                                                        |                                                        |              |
| Complete 4 credits over four semesters in the following courses:                                                                                                                                                                                                             |                                                        | 4            |
| MUSI 308                                                                                                                                                                                                                                                                     | Orchestras II: UM (String principals)                  |              |
| MUSI 310                                                                                                                                                                                                                                                                     | Opera Theatre II (Voice principals)                    |              |
|                                                                                                                                                                                                                                                                              | or MUSI 312 Choir III                                  |              |
| MUSI 314                                                                                                                                                                                                                                                                     | Band III: UM Concert Band (Instrumental principals)    |              |
| MUSI 331                                                                                                                                                                                                                                                                     | Jazz Ensembles: Big Bands (Jazz principals)            |              |
| MUSI 362                                                                                                                                                                                                                                                                     | Chamber Ensemble III: UM (Piano and guitar principals) |              |
| <b>Concert Attendance</b>                                                                                                                                                                                                                                                    |                                                        |              |
| All students majoring in music are required to attend in a minimum of 100 approved recitals/concerts prior to graduation. During the 4th year in an undergraduate degree program and upon completion of this requirement, students should register for the following course: |                                                        |              |
| MUSI 388                                                                                                                                                                                                                                                                     | Concert Attendance UM                                  | 0            |
| <b>Writing in the Disciplines Requirement</b>                                                                                                                                                                                                                                |                                                        |              |
| Complete one of the following courses:                                                                                                                                                                                                                                       |                                                        | 3            |
| MUSI 415                                                                                                                                                                                                                                                                     | Music 20th Century to Present                          |              |
| MUSI 416                                                                                                                                                                                                                                                                     | Topics in Music History                                |              |
| MUSI 417                                                                                                                                                                                                                                                                     | Cultural Studies in Music                              |              |
| <b>Senior Recital/Professional Project</b>                                                                                                                                                                                                                                   |                                                        |              |
| Complete the following course:                                                                                                                                                                                                                                               |                                                        |              |
| MUSI 499                                                                                                                                                                                                                                                                     | Senior Recital/Capstone Project                        | 1            |
| <b>Instrumental Concentration Requirements</b>                                                                                                                                                                                                                               |                                                        |              |
| Complete all of the following courses:                                                                                                                                                                                                                                       |                                                        |              |
| MUSI 195                                                                                                                                                                                                                                                                     | Applied Study I                                        | 4            |
| MUSI 295                                                                                                                                                                                                                                                                     | Applied Study II                                       | 4            |
| MUSI 395                                                                                                                                                                                                                                                                     | Applied Study III                                      | 4            |
| MUSI 495                                                                                                                                                                                                                                                                     | Applied Study IV                                       | 4            |
| MUSI 335                                                                                                                                                                                                                                                                     | Instrumental Conducting                                | 2            |
| MUSI 362                                                                                                                                                                                                                                                                     | Chamber Ensemble III: UM                               | 4            |
| MUSI 419                                                                                                                                                                                                                                                                     | Advanced Topics in Pedagogy                            | 2            |
| <b>Total Hours</b>                                                                                                                                                                                                                                                           |                                                        | <b>68-69</b> |

## Performance B.M. - Keyboard

### General Degree Requirements

To earn a baccalaureate degree, all students must complete successfully, in addition to any other requirements, the University of Montana General Education Requirements. Please refer to the General Education Requirements page (p. 39) for more information.

Additional requirements for graduation can be found on the Degree/Certificate Requirements for Graduation page (p. 36).

Unless otherwise noted in individual program requirements, a minimum grade point average of 2.00 in all work attempted at the University of Montana-Missoula is required for graduation. Please see the Academic

Policies and Procedures page (p. 25) for information on how your GPA is calculated.

Courses taken to satisfy the requirements of a major, minor, or certificate program must be completed with a grade of C- or better unless a higher grade is noted in the program requirements.

## Bachelor of Music - Performance; Concentration in Keyboard Performance

- This major has a minimum cumulative institutional GPA requirement of 2.75.

### Course Requirements

| Code                                   | Title                                                                             | Hours |
|----------------------------------------|-----------------------------------------------------------------------------------|-------|
| <b>Freshman Seminar</b>                |                                                                                   |       |
| Complete the following course:         |                                                                                   |       |
| MUSI 194                               | Seminar                                                                           | 1     |
| <b>Music Theory</b>                    |                                                                                   |       |
| Complete all of the following courses: |                                                                                   |       |
| MUSI 105                               | Music Theory I                                                                    | 2     |
| MUSI 106                               | Music Theory II                                                                   | 2     |
| MUSI 205                               | Music Theory III                                                                  | 2     |
| MUSI 206                               | Music Theory IV                                                                   | 2     |
| <b>Aural Perception</b>                |                                                                                   |       |
| Complete all of the following courses: |                                                                                   |       |
| MUSI 140                               | Aural Perception I                                                                | 2     |
| MUSI 141                               | Aural Perception II                                                               | 2     |
| MUSI 240                               | Aural Perception III                                                              | 2     |
| MUSI 241                               | Aural Perception IV                                                               | 2     |
| <b>Keyboard Skills</b>                 |                                                                                   |       |
| Complete all of the following courses: |                                                                                   |       |
| MUSI 135A                              | Keyboard Skills I                                                                 | 1     |
| MUSI 136A                              | Keyboard Skills II                                                                | 1     |
| MUSI 235                               | Keyboard Skills III                                                               | 1     |
| MUSI 236                               | Keyboard Skills IV                                                                | 1     |
| <b>Music History and Culture</b>       |                                                                                   |       |
| Complete all of the following courses: |                                                                                   |       |
| MUSI 207X                              | World Music (equiv to 307)                                                        | 3     |
| MUSI 301H                              | Music History I                                                                   | 3     |
| MUSI 302H                              | Music History II                                                                  | 3     |
| <b>Assessment</b>                      |                                                                                   |       |
| Complete the following course:         |                                                                                   |       |
| MUSI 296                               | Upper-Division Required Performance (required to advance to upper-division study) | 0     |
| <b>Literature, Form, and Analysis</b>  |                                                                                   |       |
| Complete one of the following courses: |                                                                                   | 2-3   |
| MUSI 356                               | Form & Analysis                                                                   |       |
| MUSI 418                               | Advanced Topics in Music Theory                                                   |       |
| MUSI 460                               | Jazz Theory & Improvisation II                                                    |       |

### Ensembles



Students must enroll in a minimum of one qualifying ensemble each semester while registered as a full-time student, resulting in at least 8 semesters of ensemble participation to satisfy degree requirements. Qualifying ensembles are determined by a student's auditioned principal instrument in consultation with their faculty mentor and academic advisor.

#### Lower Division

Complete 4 credits over four semesters in the following courses: 4

|           |                                                   |
|-----------|---------------------------------------------------|
| MUSI 108A | Orchestra: UMSO (String principals)               |
| MUSI 112A | Choir (Voice principals)                          |
| MUSI 114A | Band: UM Concert Band (Instrumental principals)   |
| MUSI 162A | Chamber Ensembles I (Piano and guitar principals) |

#### Upper Division

Complete 4 credits over four semesters in the following courses: 4

|          |                                                              |
|----------|--------------------------------------------------------------|
| MUSI 308 | Orchestras II: UM (String principals)                        |
| MUSI 310 | Opera Theatre II (Voice principals)<br>or MUSI 312 Choir III |
| MUSI 314 | Band III: UM Concert Band (Instrumental principals)          |
| MUSI 331 | Jazz Ensembles: Big Bands (Jazz principals)                  |
| MUSI 362 | Chamber Ensemble III: UM (Piano and guitar principals)       |

#### Concert Attendance

All students majoring in music are required to attend in a minimum of 100 approved recitals/concerts prior to graduation. During the 4th year in an undergraduate degree program and upon completion of this requirement, students should register for the following course:

|          |                       |   |
|----------|-----------------------|---|
| MUSI 388 | Concert Attendance UM | 0 |
|----------|-----------------------|---|

#### Senior Recital/Professional Project

Complete the following course:

|          |                                 |   |
|----------|---------------------------------|---|
| MUSI 499 | Senior Recital/Capstone Project | 1 |
|----------|---------------------------------|---|

#### Writing in the Disciplines Requirement

Complete one of the following courses: 3

|          |                               |
|----------|-------------------------------|
| MUSI 415 | Music 20th Century to Present |
| MUSI 416 | Topics in Music History       |
| MUSI 417 | Cultural Studies in Music     |

#### Keyboard Concentration Requirements

Complete all of the following courses:

|             |                           |   |
|-------------|---------------------------|---|
| MUSI 102A   | Performance Study         | 2 |
| MUSI 162A   | Chamber Ensembles I       | 2 |
| MUSI 195    | Applied Study I           | 4 |
| MUSI 295    | Applied Study II          | 4 |
| MUSI 395    | Applied Study III         | 4 |
| MUSI 495    | Applied Study IV          | 4 |
| MUSI 332    | Advanced Functional Piano | 1 |
| MUSI 335    | Instrumental Conducting   | 2 |
| or MUSI 336 | Choral Conducting         |   |
| MUSI 432    | Keyboard Literature       | 3 |

|                    |                              |              |
|--------------------|------------------------------|--------------|
| MUSI 433           | Keyboard Literature II       | 3            |
| MUSI 435           | Piano Methods & Materials I  | 3            |
| MUSI 436           | Piano Methods & Materials II | 3            |
| <b>Total Hours</b> |                              | <b>79-80</b> |

## Performance B.M. - Voice

### General Degree Requirements

To earn a baccalaureate degree, all students must complete successfully, in addition to any other requirements, the University of Montana General Education Requirements. Please refer to the General Education Requirements page (p. 39) for more information.

Additional requirements for graduation can be found on the Degree/Certificate Requirements for Graduation page (p. 36).

Unless otherwise noted in individual program requirements, a minimum grade point average of 2.00 in all work attempted at the University of Montana-Missoula is required for graduation. Please see the Academic Policies and Procedures page (p. 25) for information on how your GPA is calculated.

Courses taken to satisfy the requirements of a major, minor, or certificate program must be completed with a grade of C- or better unless a higher grade is noted in the program requirements.

## Bachelor of Music - Performance; Concentration in Voice Performance

- This major has a minimum cumulative institutional GPA requirement of 2.75.

### Course Requirements

| Code                                   | Title                | Hours |
|----------------------------------------|----------------------|-------|
| <b>Freshman Seminar</b>                |                      |       |
| Complete the following course:         |                      |       |
| MUSI 194                               | Seminar              | 1     |
| <b>Music Theory</b>                    |                      |       |
| Complete all of the following courses: |                      |       |
| MUSI 105                               | Music Theory I       | 2     |
| MUSI 106                               | Music Theory II      | 2     |
| MUSI 205                               | Music Theory III     | 2     |
| MUSI 206                               | Music Theory IV      | 2     |
| <b>Aural Perception</b>                |                      |       |
| Complete all of the following courses: |                      |       |
| MUSI 140                               | Aural Perception I   | 2     |
| MUSI 141                               | Aural Perception II  | 2     |
| MUSI 240                               | Aural Perception III | 2     |
| MUSI 241                               | Aural Perception IV  | 2     |
| <b>Keyboard Skills</b>                 |                      |       |
| Complete all of the following courses: |                      |       |
| MUSI 135A                              | Keyboard Skills I    | 1     |
| MUSI 136A                              | Keyboard Skills II   | 1     |
| MUSI 235                               | Keyboard Skills III  | 1     |
| MUSI 236                               | Keyboard Skills IV   | 1     |
| <b>Music History and Culture</b>       |                      |       |

Complete all of the following courses:

|           |                            |   |
|-----------|----------------------------|---|
| MUSI 207X | World Music (equiv to 307) | 3 |
| MUSI 301H | Music History I            | 3 |
| MUSI 302H | Music History II           | 3 |

#### Assessment

Complete the following course:

|          |                                                                                      |   |
|----------|--------------------------------------------------------------------------------------|---|
| MUSI 296 | Upper-Division Required Performance<br>(required to advance to upper-division study) | 0 |
|----------|--------------------------------------------------------------------------------------|---|

#### Literature, Form, and Analysis

Complete one of the following courses: 2-3

|          |                                 |  |
|----------|---------------------------------|--|
| MUSI 356 | Form & Analysis                 |  |
| MUSI 418 | Advanced Topics in Music Theory |  |
| MUSI 460 | Jazz Theory & Improvisation II  |  |

#### Ensembles

Students must enroll in a minimum of one qualifying ensemble each semester while registered as a full-time student, resulting in at least 8 semesters of ensemble participation to satisfy degree requirements. Qualifying ensembles are determined by a student's auditioned principal instrument in consultation with their faculty mentor and academic advisor.

##### Lower Division

Complete 4 credits over four semesters in the following courses: 4

|           |                                                   |  |
|-----------|---------------------------------------------------|--|
| MUSI 108A | Orchestra: UMSO (String principals)               |  |
| MUSI 112A | Choir (Voice principals)                          |  |
| MUSI 114A | Band: UM Concert Band (Instrumental principals)   |  |
| MUSI 162A | Chamber Ensembles I (Piano and guitar principals) |  |

##### Upper Division

Complete 4 credits over four semesters of the following courses: 4

|          |                                                              |  |
|----------|--------------------------------------------------------------|--|
| MUSI 308 | Orchestras II: UM (String principals)                        |  |
| MUSI 310 | Opera Theatre II (Voice principals)<br>or MUSI 312 Choir III |  |
| MUSI 314 | Band III: UM Concert Band (Instrumental principals)          |  |
| MUSI 331 | Jazz Ensembles: Big Bands (Jazz principals)                  |  |
| MUSI 362 | Chamber Ensemble III: UM (Piano and guitar principals)       |  |

#### Concert Attendance

All students majoring in music are required to attend in a minimum of 100 approved recitals/concerts prior to graduation. During the 4th year in an undergraduate degree program and upon completion of this requirement, students should register for the following course:

|          |                       |   |
|----------|-----------------------|---|
| MUSI 388 | Concert Attendance UM | 0 |
|----------|-----------------------|---|

#### Senior Recital/Professional Project

Complete the following course:

|          |                                 |   |
|----------|---------------------------------|---|
| MUSI 499 | Senior Recital/Capstone Project | 1 |
|----------|---------------------------------|---|

#### Writing in the Disciplines Requirement

Complete one of the following courses: 3

|          |                               |  |
|----------|-------------------------------|--|
| MUSI 415 | Music 20th Century to Present |  |
| MUSI 416 | Topics in Music History       |  |
| MUSI 417 | Cultural Studies in Music     |  |

#### Voice Concentration Requirements

Complete all of the following courses:

|          |                                      |   |
|----------|--------------------------------------|---|
| MUSI 195 | Applied Study I                      | 4 |
| MUSI 295 | Applied Study II                     | 4 |
| MUSI 395 | Applied Study III                    | 4 |
| MUSI 495 | Applied Study IV                     | 4 |
| MUSI 281 | Diction: English, Italian            | 2 |
| MUSI 282 | Diction: German & French (equiv 382) | 2 |
| MUSI 310 | Opera Theatre II                     | 2 |
| MUSI 336 | Choral Conducting                    | 2 |
| MUSI 342 | Vocal Repertoire I                   | 2 |
| MUSI 343 | Vocal Repertoire II                  | 2 |
| MUSI 442 | Vocal Studio Pedagogy and Lit        | 2 |
| MUSI 419 | Advanced Topics in Pedagogy          | 2 |

**Total Hours**

**76-77**

## Jazz Studies Certificate

The Jazz Studies Certificate offers students with fundamental skills on a musical instrument the opportunity to develop further in the areas of jazz performance, theory, and improvisation.

## General Certificate Requirements

Additional requirements for graduation can be found on the Degree/Certificate Requirements for Graduation page (p. 36).

Unless otherwise noted in individual program requirements, a minimum grade point average of 2.00 in all work attempted at the University of Montana-Missoula is required for graduation. Please see the Academic Policies and Procedures page (p. 25) for information on how your GPA is calculated.

Courses taken to satisfy the requirements of a major, minor, or certificate program must be completed with a grade of C- or better unless a higher grade is noted in the program requirements.

## Post-Secondary Certificate - Jazz Studies

Course Requirements

MUSI 131A/MUSI 331 (UM Jazz Bands) and MUSI 162A/MUSI 362 (Chamber Ensembles - Jazz) are repeatable.

| Code                                           | Title                                             | Hours |
|------------------------------------------------|---------------------------------------------------|-------|
| <b>Core Courses</b>                            |                                                   |       |
| Complete all of the following courses:         |                                                   |       |
| MUSI 131A<br>or MUSI 331                       | Jazz Ensembles: Big Bands                         | 2     |
| MUSI 162A<br>or MUSI 362                       | Chamber Ensembles I                               | 2     |
| MUSI 360                                       | Chamber Ensemble III: UM                          | 2     |
|                                                | Jazz Theory & Improvisation I (equivalent to 225) | 2     |
| <b>Electives</b>                               |                                                   |       |
| Complete 6 credits of the following courses: 6 |                                                   |       |
| BMGT 101S                                      | Introduction to Entertainment Management          |       |

|                    |                                |           |
|--------------------|--------------------------------|-----------|
| DANC 108A          | Dance Forms                    |           |
| MUSI 102A          | Performance Study              |           |
| MUSI 130L          | History of Jazz                |           |
| MUSI 132L          | History of Rock & Roll         |           |
| MUSI 207X          | World Music (equiv to 307)     |           |
| MUSI 331           | Jazz Ensembles: Big Bands      |           |
| MUSI 362           | Chamber Ensemble III: UM       |           |
| MUSI 420           | Jazz Pedagogy                  |           |
| MUSI 460           | Jazz Theory & Improvisation II |           |
| MUSI 470           | Jazz Arranging & Composition   |           |
| <b>Total Hours</b> |                                | <b>12</b> |

## Music Minor

### General Degree Requirements

To earn a baccalaureate degree, all students must complete successfully, in addition to any other requirements, the University of Montana General Education Requirements. Please refer to the General Education Requirements page (p. 39) for more information.

Additional requirements for graduation can be found on the Degree/Certificate Requirements for Graduation page (p. 36).

Unless otherwise noted in individual program requirements, a minimum grade point average of 2.00 in all work attempted at the University of Montana-Missoula is required for graduation. Please see the Academic Policies and Procedures page (p. 25) for information on how your GPA is calculated.

Courses taken to satisfy the requirements of a major, minor, or certificate program must be completed with a grade of C- or better unless a higher grade is noted in the program requirements.

### Minor - Music

- This minor has a minimum cumulative institutional GPA requirement of 2.75.
- Electives are to allow for emphasis in a particular area of Music study and must include coursework at the upper-division level.
- Upper-division course work normally requires a prerequisite. Please see the University general catalog for details. Consent of instructor will be required if all prerequisites have not been met.

### Course Requirements

| Code                                         | Title                        | Hours |
|----------------------------------------------|------------------------------|-------|
| <b>Core Courses</b>                          |                              |       |
| Complete all of the following courses:       |                              |       |
| MUSI 105                                     | Music Theory I               | 2     |
| MUSI 106                                     | Music Theory II              | 2     |
| MUSI 140                                     | Aural Perception I           | 2     |
| MUSI 141                                     | Aural Perception II          | 2     |
| MUSI 195                                     | Applied Study I <sup>1</sup> | 2     |
| MUSI 202L                                    | Intro to Music Literature    | 3     |
| Complete 2 credits in the following courses: |                              | 2     |
| MUSI 108A                                    | Orchestra: UMSO              |       |
| MUSI 110A                                    | Opera Theatre I              |       |
| MUSI 112A                                    | Choir                        |       |

|           |                                 |
|-----------|---------------------------------|
| MUSI 114A | Band: UM Concert Band           |
| MUSI 155A | Marching: Grizzly Marching Band |
| MUSI 131A | Jazz Ensembles: Big Bands       |
| MUSI 162A | Chamber Ensembles I             |

#### Elective Options

Complete one of the following minor option tracks. 12

##### Performance

Complete all of the following courses: <sup>2</sup>

MUSI 295 Applied Study II

MUSI 395 Applied Study III

Complete 4 credits in the following courses: <sup>3</sup>

MUSI 308 Orchestras II: UM

MUSI 310 Opera Theatre II

MUSI 312 Choir III

MUSI 314 Band III: UM Concert Band

MUSI 362 Chamber Ensemble III: UM

Complete 4 credits in the following courses:

MUSI 205 Music Theory III

MUSI 206 Music Theory IV

MUSI 301H Music History I

MUSI 302H Music History II

##### Music Theory

Complete all of the following courses:

MUSI 205 Music Theory III

MUSI 206 Music Theory IV

MUSI 240 Aural Perception III

MUSI 241 Aural Perception IV

MUSI 356 Form & Analysis

##### Music History

Complete all of the following courses:

MUSI 205 Music Theory III

MUSI 206 Music Theory IV

MUSI 301H Music History I

Complete 2 of the following courses:

MUSI 415 Music 20th Century to Present

MUSI 416 Topics in Music History

MUSI 417 Cultural Studies in Music

##### Composition

MUSI 135A Keyboard Skills I

MUSI 180 Composition I (taken for 1 credit per semester for a total of 4 credits)

MUSI 207X World Music (equiv to 307)

MUSI 280 Composition II (taken for 1 credit per semester for a total of 4 credits)

##### Music Technology

Complete all of the following courses:

MUSI 207X World Music (equiv to 307)

MUST 110 Digital Audio & Multitracking

MUST 210 Sequencing, Synthesis, and Sampling

MUST 310 Interactivity and Digital Signal Processing

MUST 410 Designing the Show

**Total Hours**

**27**

- <sup>1</sup> Ensembles must be taken concurrently with MUSI 195. MUSI 195 is taken for 1 credit each semester for a total of 2 credits for the year.
- <sup>2</sup> MUSI 295 and MUSI 395 1 credit each semester for a year total of 2 credits. Two year total of 4 credits in these Applied Studies.
- <sup>3</sup> Ensembles for four credits must be taken concurrently with MUSI 295 and MUSI 395.

## School of Theatre and Dance

The School of Theatre and Dance is accredited by the National Association of Schools of Theatre (NAST) and is a member of the Association for Theatre in Higher Education (ATHE). The school is housed in the Performing Arts and Radio/Television Center, which includes three theatre/dance performance spaces. The program is production-oriented with approximately ten major productions presented each year including contemporary, historical, period, musical, and experimental plays, as well as dance showcases and concerts. The Montana Repertory Theatre, a professional touring company based at UM, often involves students both on and off stage. The faculty is strong, possessing a diversity of educational and professional theatre and dance backgrounds.

The Bachelor of Arts with a major in Dance allows the student who plans to enter a dance career to select another major to complement that objective.

The Bachelor of Arts with a major in Dance and a concentration in Pre-Dance Therapy focuses on psychology and therapeutic performing-arts curricula.

The Bachelor of Arts with a major in Theatre provides the student with a broad liberal arts education and a general focus in theatre. The degree allows the student to complete an additional major and may form the basis for further training at the graduate level.

The Bachelor of Arts with a major in Theatre and a concentration in Theatre Education is designed for the student seeking a teaching endorsement in the field of theatre.

The Bachelor of Fine Arts with a major in Theatre is a professionally oriented degree designed for the student who plans to pursue a career in theatre or a related field. Students are invited into the BFA after an audition/interview process.

For more information about academic programs and School of Theatre and Dance productions, visit the School of Theatre and Dance website (<https://www.umt.edu/umarts/theatredance/>).

## Auditions and Portfolio Reviews

Actors, dancers, designers, musical theatre students, and technicians undergo periodic review in the form of auditions or portfolio presentations. These ongoing evaluations provide each student with the opportunity and challenge of individualized critiques from faculty and professional staff.

## Senior Project

A senior project is required of all students. The senior project is usually production related and has both practical and written components. Requirements for the project vary and are outlined in the School of Theatre and Dance Student Handbook. (<https://www.umt.edu/umarts/theatredance/handbook.php>)

- Dance B.A. (p. 94)
- Dance B.A. - Pre-Dance Therapy (p. 96)
- Dance Minor (p. 97)
- Dance Wellness Certificate (p. 98)
- Theatre B.A. (p. 99)
- Theatre B.A. - Theatre Education (p. 100)
- Theatre B.F.A. - Acting for Film & Theatre (p. 101)
- Theatre B.F.A. - Design & Technology (p. 103)
- Theatre B.F.A. - Musical Theatre Performance (p. 105)
- Musical Theatre Performance Minor (p. 107)
- Theatre Education Minor (p. 107)
- Theatre Minor (p. 108)

## Dance B.A.

### General Degree Requirements

To earn a baccalaureate degree, all students must complete successfully, in addition to any other requirements, the University of Montana General Education Requirements. Please refer to the General Education Requirements page (p. 39) for more information.

Additional requirements for graduation can be found on the Degree/Certificate Requirements for Graduation page (p. 36).

Unless otherwise noted in individual program requirements, a minimum grade point average of 2.00 in all work attempted at the University of Montana-Missoula is required for graduation. Please see the Academic Policies and Procedures page (p. 25) for information on how your GPA is calculated.

Courses taken to satisfy the requirements of a major, minor, or certificate program must be completed with a grade of C- or better unless a higher grade is noted in the program requirements.

## Bachelor of Arts - Dance

- Prospective majors must pass an admission audition during the first year to continue in the program.

### Course Requirements

| Code                                                           | Title                                                                       | Hours |
|----------------------------------------------------------------|-----------------------------------------------------------------------------|-------|
| <b>Lower-Division Required Courses</b>                         |                                                                             |       |
| Complete all of the following courses:                         |                                                                             |       |
| DANC 165A                                                      | Dance Forms: African                                                        | 3     |
| DANC 194                                                       | Seminar: First Year                                                         | 1     |
| DANC 200A                                                      | Contemporary Modern II (Course must be repeated once.)                      | 4     |
| DANC 220                                                       | Creative Practice I                                                         | 2     |
| DANC 295                                                       | Student Teaching: Childrens Dance                                           | 1     |
| <b>Modern Experience I</b>                                     |                                                                             |       |
| Complete 5-6 credits in the following courses (two semesters): |                                                                             | 5-6   |
| DANC 200A                                                      | Contemporary Modern II (may be taken only once to fulfill this subcategory) |       |
| DANC 300                                                       | Contemporary Modern III                                                     |       |
| DANC 400                                                       | Contemporary Modern IV                                                      |       |
| <b>Ballet Experience I</b>                                     |                                                                             |       |

Complete 4-5 credits in the following courses (three semesters): 4-5

|           |                                                                             |
|-----------|-----------------------------------------------------------------------------|
| DANC 110A | Introduction to Ballet (may be taken only once to fulfill this subcategory) |
| DANC 210A | Ballet II                                                                   |
| DANC 310  | Ballet III                                                                  |
| DANC 410  | Ballet IV                                                                   |

#### Jazz Experience I

Complete 4-5 credits in the following courses (two semesters): 4-5

|           |                                                                                 |
|-----------|---------------------------------------------------------------------------------|
| DANC 115A | Introduction to Jazz Dance (may be taken only once to fulfill this subcategory) |
| DANC 215A | Jazz Dance II                                                                   |
| DANC 315  | Jazz III                                                                        |

#### Upper-Division Core Required Courses

Complete all of the following courses:

|          |                                        |   |
|----------|----------------------------------------|---|
| DANC 334 | Dance History                          | 3 |
| DANC 494 | Professional Development Dance Seminar | 3 |

#### Junior Project <sup>1</sup>

Complete the following course:

|          |                                  |   |
|----------|----------------------------------|---|
| DANC 399 | Junior Creative Research Project | 1 |
|----------|----------------------------------|---|

#### Senior Project

Complete the following course:

|          |                                |   |
|----------|--------------------------------|---|
| DANC 499 | Senior Thesis/Creative Project | 1 |
|----------|--------------------------------|---|

#### Modern Experience II

Complete 8-9 credits in the following courses (three semesters): 8-9

|           |                                                                             |
|-----------|-----------------------------------------------------------------------------|
| DANC 200A | Contemporary Modern II (may be taken only once to fulfill this subcategory) |
| DANC 300  | Contemporary Modern III                                                     |
| DANC 400  | Contemporary Modern IV                                                      |

#### Ballet Experience II

Complete 6 credits in the following courses (three semesters): 6

|           |            |
|-----------|------------|
| DANC 210A | Ballet II  |
| DANC 310  | Ballet III |
| DANC 410  | Ballet IV  |

#### Jazz Experience II

Complete 4 credits in the following courses (two semesters): 4

|           |               |
|-----------|---------------|
| DANC 215A | Jazz Dance II |
| DANC 315  | Jazz III      |

#### Performance Experience <sup>2</sup>

Complete the following course:

|          |                                    |     |
|----------|------------------------------------|-----|
| DANC 327 | Advanced Rehearsal and Performance | 1-4 |
|----------|------------------------------------|-----|

#### Design and Technology Experience

Complete all of the following courses:

|           |                                         |   |
|-----------|-----------------------------------------|---|
| THTR 102A | Introduction to Theatre Design          | 3 |
| THTR 103  | Introduction to House Management        | 1 |
| THTR 106  | Theatre Production I: Run Crew          | 1 |
| THTR 107A | Theatre Production I: Construction Crew | 3 |

#### Elective Courses

Complete two of the following courses: 3-6

|           |                      |
|-----------|----------------------|
| DANC 108A | Dance Forms          |
| DANC 320  | Creative Practice II |

|           |                           |
|-----------|---------------------------|
| DANC 345  | New Visions Dance         |
| DANC 360L | World Dance               |
| DANC 380  | Science of Dance Movement |
| DANC 406  | Dance as a Healing Art    |
| THTR 220  | Acting I                  |

**Total Hours 62-72**

<sup>1</sup> Junior projects must be planned with the student's project advisor and all journals and papers will be submitted to that advisor.

<sup>2</sup> Registration and credit load based on casting for Theatre & Dance productions. Performing in one piece equals one credit.

## Four Year Plan

| Course                                                       | Title                               | Hours        |
|--------------------------------------------------------------|-------------------------------------|--------------|
| <b>Freshman</b>                                              |                                     |              |
| <b>Autumn</b>                                                |                                     |              |
| DANC 194                                                     | Seminar: First Year                 | 1            |
| DANC 200A                                                    | Contemporary Modern II              | 2            |
| DANC 220                                                     | Creative Practice I                 | 2            |
| DANC x10 Ballet by advisement                                |                                     | 2            |
| DANC xx5 - required technique <sup>1</sup>                   |                                     | 2-3          |
| THTR 106                                                     | Theatre Production I: Run Crew      | 1            |
| WRIT 101 (Last name A-L) or Elective (M-Z)                   |                                     | 3            |
| General Education Requirement (VII. recommended)             |                                     | 3            |
| <b>Hours</b>                                                 |                                     | <b>16-17</b> |
| <b>Spring</b>                                                |                                     |              |
| DANC 201                                                     | Intermediate Contemporary Modern II | 2            |
| DANC 225                                                     | Rehearsal & Performance             | 1-4          |
| DANC x10 Ballet by advisement                                |                                     | 2            |
| DANC xx5 - required technique <sup>1</sup>                   |                                     | 2-3          |
| THTR 103                                                     | Introduction to House Management    | 1            |
| Elective (Last name A-L) or WRIT 101 (M-Z)                   |                                     | 3            |
| General Education Requirement (II. recommended)              |                                     | 3            |
| <b>Hours</b>                                                 |                                     | <b>14-18</b> |
| <b>Sophomore</b>                                             |                                     |              |
| <b>Autumn</b>                                                |                                     |              |
| DANC x00 Modern by advisement                                |                                     | 3            |
| DANC x10 Ballet by advisement                                |                                     | 2            |
| DANC xx5 required technique                                  |                                     | 2-3          |
| THTR 102A                                                    | Introduction to Theatre Design      | 3            |
| General Education Requirement (IIIa and VI recommended)      |                                     | 6            |
| <b>Hours</b>                                                 |                                     | <b>16-17</b> |
| <b>Spring</b>                                                |                                     |              |
| DANC x00 Modern by advisement                                |                                     | 3            |
| DANC x10 Ballet by advisement                                |                                     | 2            |
| General Education Requirement (IIIa, XI, and Ib recommended) |                                     | 9            |
| Upper Division Elective                                      |                                     | 3            |
| <b>Hours</b>                                                 |                                     | <b>17</b>    |
| <b>Junior</b>                                                |                                     |              |
| <b>Autumn</b>                                                |                                     |              |
| DANC 295                                                     | Student Teaching: Children's Dance  | 1            |
| DANC 327                                                     | Advanced Rehearsal and Performance  | 1-4          |
| DANC 399                                                     | Junior Creative Research Project    | 1            |
| DANC x00 Modern by advisement                                |                                     | 3            |
| DANC x10 Ballet by advisement                                |                                     | 2            |
| Upper Division Electives                                     |                                     | 6            |
| General Education Requirement (VIII. recommended)            |                                     | 3            |
| <b>Hours</b>                                                 |                                     | <b>17-20</b> |



|                                                                  |                                        |                |
|------------------------------------------------------------------|----------------------------------------|----------------|
| <b>Spring</b>                                                    |                                        |                |
| DANC x00 Modern by advisement                                    |                                        | 3              |
| DANC Elective by advisement                                      |                                        | 1-3            |
| General Education Requirements (X, V, and XI w/ lab recommended) |                                        | 9              |
| <b>Hours</b>                                                     |                                        | <b>13-15</b>   |
| <b>Senior</b>                                                    |                                        |                |
| <b>Autumn</b>                                                    |                                        |                |
| DANC 334                                                         | Dance History                          | 3              |
| DANC x15 Jazz by advisement                                      |                                        | 2              |
| DANC Elective by advisement                                      |                                        | 1-3            |
| General Education Requirement (IX recommended)                   |                                        | 3              |
| Upper Division Electives                                         |                                        | 6              |
| <b>Hours</b>                                                     |                                        | <b>15-17</b>   |
| <b>Spring</b>                                                    |                                        |                |
| DANC 494                                                         | Professional Development Dance Seminar | 3              |
| DANC 499                                                         | Senior Thesis/Creative Project         | 1              |
| DANC x00 Modern by advisement                                    |                                        | 3              |
| DANC x15 Jazz by advisement                                      |                                        | 2              |
| Upper Division Electives                                         |                                        | 6              |
| <b>Hours</b>                                                     |                                        | <b>15</b>      |
| <b>Total Hours</b>                                               |                                        | <b>123-136</b> |

*Last updated Autumn 2024*

<sup>1</sup> Students must register for a minimum of one technique course per semester.

## Dance B.A. - Pre-Dance Therapy General Degree Requirements

To earn a baccalaureate degree, all students must complete successfully, in addition to any other requirements, the University of Montana General Education Requirements. Please refer to the General Education Requirements page (p. 39) for more information.

Additional requirements for graduation can be found on the Degree/Certificate Requirements for Graduation page (p. 36).

Unless otherwise noted in individual program requirements, a minimum grade point average of 2.00 in all work attempted at the University of Montana-Missoula is required for graduation. Please see the Academic Policies and Procedures page (p. 25) for information on how your GPA is calculated.

Courses taken to satisfy the requirements of a major, minor, or certificate program must be completed with a grade of C- or better unless a higher grade is noted in the program requirements.

## Bachelor of Arts - Dance; Pre-Dance Therapy Concentration

- Prospective majors must pass an admission audition during the first year to continue in the program.

### Course Requirements

| Code                                   | Title                | Hours |
|----------------------------------------|----------------------|-------|
| <b>Lower-Division Required Courses</b> |                      |       |
| Complete all of the following courses: |                      |       |
| DANC 165A                              | Dance Forms: African | 3     |
| DANC 194                               | Seminar: First Year  | 1     |

|           |                                                        |   |
|-----------|--------------------------------------------------------|---|
| DANC 200A | Contemporary Modern II (Course must be repeated once.) | 4 |
| DANC 220  | Creative Practice I                                    | 2 |
| DANC 295  | Student Teaching: Childrens Dance                      | 1 |

### Modern Experience I

Complete 5-6 credits in the following courses (two semesters):

|           |                                                                             |  |
|-----------|-----------------------------------------------------------------------------|--|
| DANC 200A | Contemporary Modern II (may be taken only once to fulfill this subcategory) |  |
| DANC 300  | Contemporary Modern III                                                     |  |
| DANC 400  | Contemporary Modern IV                                                      |  |

### Ballet Experience I

Complete 4-5 credits in the following courses (three semesters):

|           |                                                                             |  |
|-----------|-----------------------------------------------------------------------------|--|
| DANC 110A | Introduction to Ballet (may be taken only once to fulfill this subcategory) |  |
| DANC 210A | Ballet II                                                                   |  |
| DANC 310  | Ballet III                                                                  |  |
| DANC 410  | Ballet IV                                                                   |  |

### Jazz Experience I

Complete 4-5 credits in the following courses (two semesters):

|           |                                                                                 |  |
|-----------|---------------------------------------------------------------------------------|--|
| DANC 115A | Introduction to Jazz Dance (may be taken only once to fulfill this subcategory) |  |
| DANC 215A | Jazz Dance II                                                                   |  |
| DANC 315  | Jazz III                                                                        |  |

### Upper-Division Required Courses

Complete all of the following courses:

|          |                                        |   |
|----------|----------------------------------------|---|
| DANC 334 | Dance History                          | 3 |
| DANC 494 | Professional Development Dance Seminar | 3 |

### Junior Project <sup>1</sup>

Complete the following course:

|          |                                  |   |
|----------|----------------------------------|---|
| DANC 399 | Junior Creative Research Project | 1 |
|----------|----------------------------------|---|

### Senior Project

Complete the following course:

|          |                                |   |
|----------|--------------------------------|---|
| DANC 499 | Senior Thesis/Creative Project | 1 |
|----------|--------------------------------|---|

### Pre-Dance Therapy Concentration Psychology Requirements

Complete all of the following courses:

|           |                         |   |
|-----------|-------------------------|---|
| PSYX 100S | Intro to Psychology     | 3 |
| PSYX 330  | Child Development       | 3 |
| PSYX 340  | Psychological Disorders | 3 |

Complete one of the following courses:

|           |                                                |  |
|-----------|------------------------------------------------|--|
| PSYX 120  | Introduction to Psychological Research Methods |  |
| PSYX 233  | Fundamentals of Psychology of Aging            |  |
| PSYX 250N | Fundamentals of Biological Psychology          |  |
| PSYX 360  | Social Psychology                              |  |
| PSYX 362  | Multicultural Psychology                       |  |

### Pre-Dance Therapy Concentration Dance Requirements

Complete all of the following courses:

|           |                           |   |
|-----------|---------------------------|---|
| DANC 345  | New Visions Dance         | 1 |
| DANC 360L | World Dance               | 3 |
| DANC 380  | Science of Dance Movement | 3 |

|                                                                          |                                    |              |
|--------------------------------------------------------------------------|------------------------------------|--------------|
| DANC 406                                                                 | Dance as a Healing Art             | 2            |
| <b>Pre-Dance Therapy Concentration Dance Electives</b>                   |                                    |              |
| Complete two of the following courses:                                   |                                    | 2-5          |
| DANC 108A                                                                | Dance Forms                        |              |
| DANC 225                                                                 | Rehearsal & Performance            |              |
| DANC 227                                                                 | Community Dance Initiatives        |              |
| DANC 320                                                                 | Creative Practice II               |              |
| DANC 327                                                                 | Advanced Rehearsal and Performance |              |
| THTR 202                                                                 | Stagecraft I                       |              |
| THTR 220                                                                 | Acting I                           |              |
| <b>Cultural, Social and Behavioral Competency Electives <sup>2</sup></b> |                                    |              |
| Complete 6 elective credits in any of the following subject areas:       |                                    | 6            |
| African American Studies (AAST)                                          |                                    |              |
| Anthropology (ANTH)                                                      |                                    |              |
| Counseling (COUN)                                                        |                                    |              |
| Education (EDEC)                                                         |                                    |              |
| Health (HTH)                                                             |                                    |              |
| Native American Studies (NASX)                                           |                                    |              |
| Neuroscience (NEUR)                                                      |                                    |              |
| Psychology (PSYX)                                                        |                                    |              |
| Sociology (SOCI)                                                         |                                    |              |
| Women's, Gender, and Sexuality Studies (WGSS)                            |                                    |              |
| <b>Total Hours</b>                                                       |                                    | <b>61-67</b> |

<sup>1</sup> Junior projects must be planned with the student's project advisor and all journals and papers will be submitted to that advisor.

<sup>2</sup> Courses should be selected based on areas of interest in consultation with an advisor.

## Four Year Plan

| Course                                          | Title                              | Hours        |
|-------------------------------------------------|------------------------------------|--------------|
| <b>Freshman</b>                                 |                                    |              |
| <b>Autumn</b>                                   |                                    |              |
| DANC 194                                        | Seminar: First Year                | 1            |
| DANC 165A                                       | Dance Forms: African               | 3            |
| DANC 220                                        | Creative Practice I                | 2            |
| DANC x00 Modern by advisement                   |                                    | 2-3          |
| PSYX 100S                                       | Intro to Psychology                | 3            |
| WRIT 101 (last name A-L) or Elective (M-Z)      |                                    | 3-4          |
| <b>Hours</b>                                    |                                    | <b>14-16</b> |
| <b>Spring</b>                                   |                                    |              |
| DANC x00 Modern by advisement                   |                                    | 2-3          |
| DANC x10 Ballet by advisement                   |                                    | 2            |
| DANC Elective by advisement                     |                                    | 1-3          |
| Elective (last name A-L) or WRIT 101 (M-Z)      |                                    | 3-4          |
| General Education Requirement (II. recommended) |                                    | 3            |
| <b>Hours</b>                                    |                                    | <b>11-15</b> |
| <b>Sophomore</b>                                |                                    |              |
| <b>Autumn</b>                                   |                                    |              |
| DANC 295                                        | Student Teaching: Children's Dance | 1            |
| DANC x00 Modern by advisement                   |                                    | 2-3          |
| DANC xx5 required technique <sup>1</sup>        |                                    | 2-3          |

|                                                                   |                                                |                |
|-------------------------------------------------------------------|------------------------------------------------|----------------|
| PSYX 120                                                          | Introduction to Psychological Research Methods | 3              |
| or PSYX 233                                                       | or Fundamentals of Psychology of Aging         |                |
| or PSYX 250N                                                      | or Fundamentals of Biological Psychology       |                |
| or PSYX 360                                                       | or Social Psychology                           |                |
| or PSYX 362                                                       | or Multicultural Psychology                    |                |
| General Education Requirement (III.a. and VI. recommended)        |                                                | 6              |
| <b>Hours</b>                                                      |                                                | <b>14-16</b>   |
| <b>Spring</b>                                                     |                                                |                |
| DANC x00 Modern by advisement                                     |                                                | 2-3            |
| DANC 345                                                          | New Visions Dance                              | 1              |
| General Education Requirement (III.a., XI., and I.b. recommended) |                                                | 9              |
| Elective                                                          |                                                | 3              |
| <b>Hours</b>                                                      |                                                | <b>15-16</b>   |
| <b>Junior</b>                                                     |                                                |                |
| <b>Autumn</b>                                                     |                                                |                |
| DANC X10 Ballet by advisement                                     |                                                | 2-3            |
| DANC 399                                                          | Junior Creative Research Project               | 1              |
| DANC Elective by advisement                                       |                                                | 1-3            |
| PSYX 330                                                          | Child Development                              | 3              |
| General Education Requirement (VIII. recommended)                 |                                                | 3              |
| Upper Division Elective                                           |                                                | 3              |
| Elective                                                          |                                                | 3              |
| <b>Hours</b>                                                      |                                                | <b>16-19</b>   |
| <b>Spring</b>                                                     |                                                |                |
| DANC 360L                                                         | World Dance                                    | 3              |
| DANC 406                                                          | Dance as a Healing Art                         | 2              |
| DANC x15 Jazz by advisement                                       |                                                | 2-3            |
| PSYX 340                                                          | Psychological Disorders                        | 3              |
| Cultural/Societal/Behavioral Competency Course by advisement      |                                                | 3              |
| General Education Requirement (XI. w/ lab recommended)            |                                                | 3              |
| <b>Hours</b>                                                      |                                                | <b>16-17</b>   |
| <b>Senior</b>                                                     |                                                |                |
| <b>Autumn</b>                                                     |                                                |                |
| DANC 334                                                          | Dance History                                  | 3              |
| DANC Elective by advisement                                       |                                                | 2-3            |
| General Education Requirement (IX. recommended)                   |                                                | 3              |
| Upper Division Elective                                           |                                                | 6              |
| Cultural/Societal/Behavioral Competency Course by advisement      |                                                | 3              |
| <b>Hours</b>                                                      |                                                | <b>17-18</b>   |
| <b>Spring</b>                                                     |                                                |                |
| DANC 380                                                          | Science of Dance Movement                      | 3              |
| DANC 494                                                          | Professional Development Dance Seminar         | 3              |
| DANC 499                                                          | Senior Thesis/Creative Project                 | 1              |
| Upper Division Elective                                           |                                                | 6              |
| Elective                                                          |                                                | 3              |
| <b>Hours</b>                                                      |                                                | <b>16</b>      |
| <b>Total Hours</b>                                                |                                                | <b>119-133</b> |

*Last updated Autumn 2024*

<sup>1</sup> Students must register for a minimum of one technique course each semester.

## Dance Minor

### General Degree Requirements

To earn a baccalaureate degree, all students must complete successfully, in addition to any other requirements, the University of Montana General Education Requirements. Please refer to the General Education Requirements page (p. 39) for more information.

Additional requirements for graduation can be found on the Degree/Certificate Requirements for Graduation page (p. 36).

Unless otherwise noted in individual program requirements, a minimum grade point average of 2.00 in all work attempted at the University of Montana-Missoula is required for graduation. Please see the Academic Policies and Procedures page (p. 25) for information on how your GPA is calculated.

Courses taken to satisfy the requirements of a major, minor, or certificate program must be completed with a grade of C- or better unless a higher grade is noted in the program requirements.

## Minor - Dance Course Requirements

| Code                                                              | Title                                                       | Hours |
|-------------------------------------------------------------------|-------------------------------------------------------------|-------|
| <b>Technique Experience I</b>                                     |                                                             |       |
| Complete 4-6 credits in the following courses (three semesters):  |                                                             | 4-6   |
| DANC 100A                                                         | Introduction to Modern Dance                                |       |
| DANC 108A                                                         | Dance Forms (may only be taken once for these requirements) |       |
| DANC 110A                                                         | Introduction to Ballet                                      |       |
| DANC 115A                                                         | Introduction to Jazz Dance                                  |       |
| DANC 165A                                                         | Dance Forms: African                                        |       |
| <b>Technique Experience II</b>                                    |                                                             |       |
| Complete 8-12 credits in the following courses (three semesters): |                                                             | 8-12  |
| DANC 100A                                                         | Introduction to Modern Dance                                |       |
| DANC 110A                                                         | Introduction to Ballet                                      |       |
| DANC 115A                                                         | Introduction to Jazz Dance                                  |       |
| DANC 165A                                                         | Dance Forms: African                                        |       |
| DANC 200A                                                         | Contemporary Modern II                                      |       |
| DANC 210A                                                         | Ballet II                                                   |       |
| DANC 215A                                                         | Jazz Dance II                                               |       |
| DANC 300                                                          | Contemporary Modern III                                     |       |
| DANC 310                                                          | Ballet III                                                  |       |
| DANC 315                                                          | Jazz III                                                    |       |
| DANC 400                                                          | Contemporary Modern IV                                      |       |
| DANC 410                                                          | Ballet IV                                                   |       |
| <b>Production Experience</b>                                      |                                                             |       |
| Complete one of the following courses:                            |                                                             | 3     |
| THTR 102A                                                         | Introduction to Theatre Design                              |       |
| THTR 107A                                                         | Theatre Production I: Construction Crew                     |       |
| THTR 202                                                          | Stagecraft I                                                |       |
| <b>Upper-Division Core</b>                                        |                                                             |       |
| Complete one of the following courses:                            |                                                             | 3     |
| DANC 334                                                          | Dance History                                               |       |
| DANC 360L                                                         | World Dance                                                 |       |
| <b>Electives</b>                                                  |                                                             |       |
| Complete three of the following courses:                          |                                                             | 4-7   |
| DANC 217                                                          | Musical Theatre Styles                                      |       |
| DANC 220                                                          | Creative Practice I                                         |       |
| DANC 225                                                          | Rehearsal & Performance                                     |       |
| DANC 227                                                          | Community Dance Initiatives                                 |       |

|                    |                                    |
|--------------------|------------------------------------|
| DANC 295           | Student Teaching: Childrens Dance  |
| DANC 327           | Advanced Rehearsal and Performance |
| DANC 345           | New Visions Dance                  |
| DANC 380           | Science of Dance Movement          |
| DANC 406           | Dance as a Healing Art             |
| <hr/>              |                                    |
| <b>Total Hours</b> | <b>22-31</b>                       |

## Dance Wellness Certificate General Certificate Requirements

Additional requirements for graduation can be found on the Degree/Certificate Requirements for Graduation page (p. 36).

Unless otherwise noted in individual program requirements, a minimum grade point average of 2.00 in all work attempted at the University of Montana-Missoula is required for graduation. Please see the Academic Policies and Procedures page (p. 25) for information on how your GPA is calculated.

Courses taken to satisfy the requirements of a major, minor, or certificate program must be completed with a grade of C- or better unless a higher grade is noted in the program requirements.

## Post-Secondary Certificate - Dance Wellness Course Requirements

| Code                                                             | Title                        | Hours |
|------------------------------------------------------------------|------------------------------|-------|
| <b>Technique Requirements</b>                                    |                              |       |
| Complete 6-9 credits of the following courses (three semesters): |                              | 6-9   |
| DANC 100A                                                        | Introduction to Modern Dance |       |
| DANC 108A                                                        | Dance Forms                  |       |
| DANC 110A                                                        | Introduction to Ballet       |       |
| DANC 115A                                                        | Introduction to Jazz Dance   |       |
| DANC 165A                                                        | Dance Forms: African         |       |
| DANC 200A                                                        | Contemporary Modern II       |       |
| DANC 210A                                                        | Ballet II                    |       |
| DANC 215A                                                        | Jazz Dance II                |       |
| DANC 300                                                         | Contemporary Modern III      |       |
| DANC 310                                                         | Ballet III                   |       |
| DANC 315                                                         | Jazz III                     |       |
| DANC 400                                                         | Contemporary Modern IV       |       |
| DANC 410                                                         | Ballet IV                    |       |
| <b>Multidisciplinary Exploration</b>                             |                              |       |
| Complete one of the following courses:                           |                              | 3     |
| HTH 430                                                          |                              |       |
| PSYX 100S                                                        |                              |       |
| <b>Dance Wellness Experience</b>                                 |                              |       |
| Complete one of the following courses:                           |                              | 2-3   |
| DANC 380                                                         | Science of Dance Movement    |       |
| DANC 406                                                         | Dance as a Healing Art       |       |
| <b>Dance Wellness Electives</b>                                  |                              |       |
| Complete at least 1 credit from the following courses:           |                              | 1-2   |
| DANC 220                                                         | Creative Practice I          |       |

|                    |                                   |
|--------------------|-----------------------------------|
| DANC 227           | Community Dance Initiatives       |
| DANC 295           | Student Teaching: Childrens Dance |
| DANC 345           | New Visions Dance                 |
| <b>Total Hours</b> | <b>12-17</b>                      |

## Theatre B.A.

### General Degree Requirements

To earn a baccalaureate degree, all students must complete successfully, in addition to any other requirements, the University of Montana General Education Requirements. Please refer to the General Education Requirements page (p. 39) for more information.

Additional requirements for graduation can be found on the Degree/Certificate Requirements for Graduation page (p. 36).

Unless otherwise noted in individual program requirements, a minimum grade point average of 2.00 in all work attempted at the University of Montana-Missoula is required for graduation. Please see the Academic Policies and Procedures page (p. 25) for information on how your GPA is calculated.

Courses taken to satisfy the requirements of a major, minor, or certificate program must be completed with a grade of C- or better unless a higher grade is noted in the program requirements.

### Bachelor of Arts - Theatre Course Requirements

| Code                                   | Title                                                                                                          | Hours |
|----------------------------------------|----------------------------------------------------------------------------------------------------------------|-------|
| <b>Lower-Division Required Courses</b> |                                                                                                                |       |
| Complete all of the following courses: |                                                                                                                |       |
| THTR 102A                              | Introduction to Theatre Design                                                                                 | 3     |
| THTR 103                               | Introduction to House Management                                                                               | 1     |
| THTR 106                               | Theatre Production I: Run Crew                                                                                 | 1     |
| THTR 194                               | Seminar/ Workshop                                                                                              | 1     |
| THTR 202                               | Stagecraft I                                                                                                   | 3     |
| THTR 206                               | Theatre Production II: Run Crew                                                                                | 1     |
| THTR 220                               | Acting I                                                                                                       | 3     |
| THTR 235L                              | Dramatic Literature                                                                                            | 3     |
| <b>Shop Experience I</b> <sup>1</sup>  |                                                                                                                |       |
| Complete the following course:         |                                                                                                                |       |
| THTR 107A                              |                                                                                                                | 3     |
| <b>Shop Experience II</b> <sup>1</sup> |                                                                                                                |       |
| Complete the following course:         |                                                                                                                |       |
| THTR 107A                              | Theatre Production I: Construction Crew (must be a different section from the one taken for Shop Experience I) | 3     |
| <b>Upper-Division Required Courses</b> |                                                                                                                |       |
| Complete all of the following courses: |                                                                                                                |       |
| THTR 330H                              | Theatre History I                                                                                              | 3     |
| THTR 331                               | Theatre History II                                                                                             | 3     |
| THTR 375                               | Directing I                                                                                                    | 3     |
| <b>Senior Project</b>                  |                                                                                                                |       |
| Complete the following course:         |                                                                                                                |       |
| THTR 499                               | Senior Project (taken during the student's final semester)                                                     | 1     |

### Electives

|                                             |           |
|---------------------------------------------|-----------|
| Complete 12 credits in the following areas: | 12        |
| Art (ART)                                   |           |
| Art History (ARTH)                          |           |
| Dance (DANC)                                |           |
| Media Arts (MART)                           |           |
| Music (MUSI, MUSE, or MUST)                 |           |
| Theatre (THTR)                              |           |
| <b>Total Hours</b>                          | <b>44</b> |

<sup>1</sup> Students may select sections in the Scene Shop, Costume Shop, or Light Shop.

### Four Year Plan

| Course                                                                 | Title                                            | Hours        |
|------------------------------------------------------------------------|--------------------------------------------------|--------------|
| <b>Freshman</b>                                                        |                                                  |              |
| <b>Autumn</b>                                                          |                                                  |              |
| THTR 102A                                                              | Introduction to Theatre Design (IV.)             | 3            |
| THTR 103                                                               | Introduction to House Management (last name M-Z) | 1 (0)        |
| THTR 106                                                               | Theatre Production I: Run Crew                   | 1            |
| THTR 107A                                                              | Theatre Production I: Construction Crew          | 3            |
| THTR 194                                                               | Seminar: First Year                              | 1            |
| THTR 202                                                               | Stagecraft I                                     | 3            |
| THTR 220                                                               | Acting I                                         | 3            |
| WRIT 101 (last name A-L) or Elective (M-Z)                             |                                                  | 3            |
| <b>Hours</b>                                                           |                                                  | <b>17-18</b> |
| <b>Spring</b>                                                          |                                                  |              |
| THTR 103                                                               | Introduction to House Management (last name A-L) | 1 (0)        |
| THTR 206                                                               | Theatre Production II: Run Crew                  | 1            |
| THTR 235L                                                              | Dramatic Literature (V.)                         | 3            |
| Elective (last name A-L) or WRIT 101 (M-Z)                             |                                                  | 3            |
| General Education Requirement (II. recommended)                        |                                                  | 3            |
| Art/Dance/Media Arts/Music/Theatre Elective                            |                                                  | 3            |
| <b>Hours</b>                                                           |                                                  | <b>13-14</b> |
| <b>Sophomore</b>                                                       |                                                  |              |
| <b>Autumn</b>                                                          |                                                  |              |
| THTR 107A                                                              | Theatre Production I: Construction Crew          | 3            |
| THTR 330H                                                              | Theatre History I (I.b./VI.)                     | 3            |
| General Education Requirement (VII. recommended)                       |                                                  | 3            |
| Elective                                                               |                                                  | 6            |
| <b>Hours</b>                                                           |                                                  | <b>15</b>    |
| <b>Spring</b>                                                          |                                                  |              |
| THTR 331                                                               | Theatre History II (I.c.)                        | 3            |
| General Education Requirement (XI. recommended)                        |                                                  |              |
| Upper Division Elective                                                |                                                  | 3            |
| Elective                                                               |                                                  | 6            |
| <b>Hours</b>                                                           |                                                  | <b>12</b>    |
| <b>Junior</b>                                                          |                                                  |              |
| <b>Autumn</b>                                                          |                                                  |              |
| THTR 375                                                               | Directing I                                      | 3            |
| General Education Requirement (III.a. and VIII. recommended)           |                                                  | 6            |
| Elective                                                               |                                                  | 6            |
| <b>Hours</b>                                                           |                                                  | <b>15</b>    |
| <b>Spring</b>                                                          |                                                  |              |
| General Education Requirement (III.a., X., and XI. w/ lab recommended) |                                                  | 9            |
| Art/Dance/Media Arts/Music/Theatre Elective                            |                                                  | 3            |
| Upper-Division Elective                                                |                                                  | 3            |
| <b>Hours</b>                                                           |                                                  | <b>15</b>    |

|                                                            |                |                |
|------------------------------------------------------------|----------------|----------------|
| <b>Senior</b>                                              |                |                |
| <b>Autumn</b>                                              |                |                |
| General Education Requirement (IX. recommended)            |                | 3              |
| Upper Division Elective                                    |                | 6              |
| Upper Division Art/Dance/Media Arts/Music/Theatre Elective |                | 6              |
| <b>Hours</b>                                               |                | <b>15</b>      |
| <b>Spring</b>                                              |                |                |
| THTR 499                                                   | Senior Project | 1              |
| Upper Division Elective                                    |                | 9              |
| Upper Division Art/Dance/Media Arts/Music/Theatre Elective |                | 6              |
| <b>Hours</b>                                               |                | <b>16</b>      |
| <b>Total Hours</b>                                         |                | <b>118-120</b> |

*Last updated Autumn 2024*

## Theatre B.A. - Theatre Education

### General Degree Requirements

To earn a baccalaureate degree, all students must complete successfully, in addition to any other requirements, the University of Montana General Education Requirements. Please refer to the General Education Requirements page (p. 39) for more information.

Additional requirements for graduation can be found on the Degree/Certificate Requirements for Graduation page (p. 36).

Unless otherwise noted in individual program requirements, a minimum grade point average of 2.00 in all work attempted at the University of Montana-Missoula is required for graduation. Please see the Academic Policies and Procedures page (p. 25) for information on how your GPA is calculated.

Courses taken to satisfy the requirements of a major, minor, or certificate program must be completed with a grade of C- or better unless a higher grade is noted in the program requirements.

### Bachelor of Arts - Theatre; Theatre Education Concentration

- This education concentration contains different/additional course requirements designed to meet state standards. Those interested in teaching in K-12 schools must complete the teaching concentration of a major in a teaching content area plus the Teacher Education Program through the Department of Teaching and Learning. Additional teaching areas can be added through completion of the teaching concentration of a major or the teaching/education minor in that content area.
  - Secondary Education Licensure Program (<https://www.umt.edu/education/departments/teaching-and-learning/tep/default.php>)
  - Licensure Degree Requirements (p. 151)
- To complete this concentration, you need to contact the Teaching and Learning Department. Approvals for this concentration must come from the Teaching and Learning Department.
- This major does not qualify as a single field endorsement. Individuals must complete the teaching track of a second major or minor in another teaching content area. The demand in Montana high schools for teaching of courses in this field is limited. The required second endorsement should be in a field in high demand.

### Course Requirements

| Code                                                | Title                                                  | Hours        |
|-----------------------------------------------------|--------------------------------------------------------|--------------|
| <b>Lower-Division Required Courses</b>              |                                                        |              |
| Complete all of the following courses:              |                                                        |              |
| THTR 102A                                           | Introduction to Theatre Design                         | 3            |
| THTR 103                                            | Introduction to House Management                       | 1            |
| THTR 106                                            | Theatre Production I: Run Crew                         | 1            |
| THTR 194                                            | Seminar/ Workshop                                      | 1            |
| THTR 202                                            | Stagecraft I                                           | 3            |
| THTR 206                                            | Theatre Production II: Run Crew                        | 1            |
| THTR 220                                            | Acting I                                               | 3            |
| THTR 235L                                           | Dramatic Literature                                    | 3            |
| <b>Shop Experience<sup>1</sup></b>                  |                                                        |              |
| Complete the following course:                      |                                                        |              |
| THTR 107A                                           |                                                        | 3            |
| <b>Upper-Division Required Courses</b>              |                                                        |              |
| Complete all of the following courses:              |                                                        |              |
| THTR 330H                                           | Theatre History I                                      | 3            |
| THTR 331                                            | Theatre History II                                     | 3            |
| THTR 375                                            | Directing I                                            | 3            |
| <b>Senior Project</b>                               |                                                        |              |
| Complete the following course:                      |                                                        |              |
| THTR 499                                            | Senior Project (taken during student's final semester) | 1            |
| <b>Theatre Education Concentration Requirements</b> |                                                        |              |
| Complete all of the following courses:              |                                                        |              |
| THTR 210                                            | Voice & Speech I                                       | 2            |
| THTR 221                                            | Acting II                                              | 3            |
| THTR 249                                            | Stage Makeup I                                         | 1            |
| THTR 320                                            | Acting III                                             | 3            |
| THTR 323                                            | Auditioning                                            | 1            |
| THTR 349                                            | Stage Makeup II                                        | 1            |
| THTR 370                                            | Stage Management I                                     | 3            |
| THTR 371                                            | Stage Management Practicum I                           | 1-3          |
| THTR 439                                            | Methods of Teaching Theatre                            | 3            |
| <b>Total Hours</b>                                  |                                                        | <b>47-49</b> |

<sup>1</sup> Students may select sections in the Scene Shop, Costume Shop, or Light Shop.

### Secondary Teaching Licensure

For endorsement to teach this subject, a student also must gain admission to the Teacher Education Program and meet all the requirements for secondary teaching licensure (p. 151). For more information, see the Teaching and Learning Department webpage (<https://www.umt.edu/education/departments/currinst/default.php>).

### Four Year Plan

This teaching track contains different/additional course requirements designed to meet state standards. Those interested in teaching in K-12 schools must complete the teaching track of a major in a teaching content area plus the Teacher Education Program through the Department of Teaching and Learning. Additional teaching areas can be



added through completion of the teaching track of a major or minor in that content area.

| Course                                                            | Title                                            | Hours        |
|-------------------------------------------------------------------|--------------------------------------------------|--------------|
| <b>Freshman</b>                                                   |                                                  |              |
| <b>Autumn</b>                                                     |                                                  |              |
| THTR 102A                                                         | Introduction to Theatre Design (IV.)             | 3            |
| THTR 103                                                          | Introduction to House Management (last name M-Z) | 1 (0)        |
| THTR 106                                                          | Theatre Production I: Run Crew                   | 1            |
| THTR 107A                                                         | Theatre Production I: Construction Crew          | 3            |
| THTR 194                                                          | Seminar: First Year                              | 1            |
| THTR 202                                                          | Stagecraft I                                     | 3            |
| THTR 220                                                          | Acting I                                         | 3            |
| WRIT 101 (last name A-L) or Elective (M-Z)                        |                                                  | 3            |
| <b>Hours</b>                                                      |                                                  | <b>17-18</b> |
| <b>Spring</b>                                                     |                                                  |              |
| THTR 103                                                          | Introduction to House Management (last name M-Z) | 1 (0)        |
| THTR 206                                                          | Theatre Production II: Run Crew                  | 1            |
| THTR 221                                                          | Acting II                                        | 3            |
| THTR 235L                                                         | Dramatic Literature (V.)                         | 3            |
| Elective (last name A-L) or WRIT 101 (M-Z)                        |                                                  | 3            |
| General Education Requirement (II. recommended)                   |                                                  | 3            |
| Art/Dance/Media Arts/Music/Theatre Elective                       |                                                  | 3            |
| <b>Hours</b>                                                      |                                                  | <b>16-17</b> |
| <b>Sophomore</b>                                                  |                                                  |              |
| <b>Autumn</b>                                                     |                                                  |              |
| THTR 210                                                          | Voice & Speech I                                 | 2            |
| THTR 249                                                          | Stage Makeup I                                   | 1            |
| THTR 320                                                          | Acting III                                       | 3            |
| THTR 323                                                          | Auditioning                                      | 1            |
| THTR 370                                                          | Stage Management I                               | 3            |
| General Education Requirement (VII. recommended)                  |                                                  | 3            |
| Elective                                                          |                                                  | 3            |
| <b>Hours</b>                                                      |                                                  | <b>16</b>    |
| <b>Spring</b>                                                     |                                                  |              |
| THTR 349                                                          | Stage Makeup II (if offered)                     | 1 (0)        |
| THTR 371                                                          | Stage Management Practicum I                     | 2-3          |
| General Education Requirement (XI. recommended)                   |                                                  | 3            |
| Elective                                                          |                                                  | 9            |
| <b>Hours</b>                                                      |                                                  | <b>14-16</b> |
| <b>Junior</b>                                                     |                                                  |              |
| <b>Autumn</b>                                                     |                                                  |              |
| THTR 330H                                                         | Theatre History I (I.b./VI.)                     | 3            |
| General Education Requirement (III.a. and VIII. recommended)      |                                                  | 6            |
| Elective                                                          |                                                  | 9            |
| <b>Hours</b>                                                      |                                                  | <b>18</b>    |
| <b>Spring</b>                                                     |                                                  |              |
| THTR 331                                                          | Theatre History II (I.c.)                        | 3            |
| THTR 349                                                          | Stage Makeup II (if not offered Spring Y2)       | 1 (0)        |
| General Education Requirement (III.a. and XI. w/ lab recommended) |                                                  | 6            |
| Upper Division Elective                                           |                                                  | 9            |
| <b>Hours</b>                                                      |                                                  | <b>18-19</b> |
| <b>Senior</b>                                                     |                                                  |              |
| <b>Autumn</b>                                                     |                                                  |              |
| THTR 375                                                          | Directing I                                      | 3            |
| THTR 439                                                          | Methods of Teaching Theatre                      | 3            |
| General Education Requirement (IX. recommended)                   |                                                  | 3            |
| Upper Division Art/Dance/Media Arts/Music/Theatre Elective        |                                                  | 3            |
| Upper Division Elective                                           |                                                  | 3            |
| <b>Hours</b>                                                      |                                                  | <b>15</b>    |
| <b>Spring</b>                                                     |                                                  |              |
| THTR 499                                                          | Senior Project                                   | 1            |

|                                                            |                |
|------------------------------------------------------------|----------------|
| General Education Requirement (X. recommended)             | 3              |
| Upper Division Art/Dance/Media Arts/Music/Theatre Elective | 3              |
| Upper Division Elective                                    | 3              |
| Elective                                                   | 3              |
| <b>Hours</b>                                               | <b>13</b>      |
| <b>Total Hours</b>                                         | <b>127-132</b> |

*Last updated Autumn 2024*

## Theatre B.F.A. - Acting for Film & Theatre

### General Degree Requirements

To earn a baccalaureate degree, all students must complete successfully, in addition to any other requirements, the University of Montana General Education Requirements. Please refer to the General Education Requirements page (p. 39) for more information.

Additional requirements for graduation can be found on the Degree/Certificate Requirements for Graduation page (p. 36).

Unless otherwise noted in individual program requirements, a minimum grade point average of 2.00 in all work attempted at the University of Montana-Missoula is required for graduation. Please see the Academic Policies and Procedures page (p. 25) for information on how your GPA is calculated.

Courses taken to satisfy the requirements of a major, minor, or certificate program must be completed with a grade of C- or better unless a higher grade is noted in the program requirements.

## Bachelor of Fine Arts - Theatre: Acting for Film and Theatre Concentration

Students who intend to pursue the Acting for Film and Theatre concentration will normally enter the University as Bachelor of Arts students in Theatre with a focus in pre-Acting. They should then declare intent to pursue the BFA degree no later than the middle of the second semester of a four-year program. Admission is granted by audition at the end of the first year.

### Course Requirements

| Code                                   | Title                                   | Hours |
|----------------------------------------|-----------------------------------------|-------|
| <b>Lower-Division Required Courses</b> |                                         |       |
| Complete all of the following courses: |                                         |       |
| THTR 103                               | Introduction to House Management        | 1     |
| THTR 106                               | Theatre Production I: Run Crew          | 1     |
| THTR 202                               | Stagecraft I                            | 3     |
| THTR 220                               | Acting I                                | 3     |
| THTR 235L                              | Dramatic Literature                     | 3     |
| <b>Shop Experience<sup>1</sup></b>     |                                         |       |
| Complete the following course:         |                                         |       |
| THTR 107A                              | Theatre Production I: Construction Crew | 3     |
| <b>First-Year Seminar</b>              |                                         |       |
| Complete one of the following courses: |                                         |       |
| COLS 194                               | Seminar/Workshop                        |       |
| DANC 194                               | Seminar: First Year                     |       |
| THTR 194                               | Seminar/ Workshop                       |       |

**Theatre History**

Complete the following course:

|           |                   |   |
|-----------|-------------------|---|
| THTR 330H | Theatre History I | 3 |
|-----------|-------------------|---|

**Advanced Writing**

Complete one of the following courses: 3

|          |                                |  |
|----------|--------------------------------|--|
| MART 450 | Topics in Film & Media Studies |  |
| MUSI 416 | Topics in Music History        |  |
| MUSI 417 | Cultural Studies in Music      |  |
| THTR 331 | Theatre History II             |  |

**Acting for Film & Theatre Concentration Required Courses**

Complete all of the following courses:

|           |                                      |   |
|-----------|--------------------------------------|---|
| DANC 100A | Introduction to Modern Dance         | 3 |
| MAR 251   | Digital Video Production Technology  | 3 |
| MART 101L | Intro to Media Arts                  | 3 |
| MART 112A | Introduction to Film Editing         | 3 |
| MART 470  | Advanced Acting for Film I           | 3 |
| THTR 206  | Theatre Production II: Run Crew      | 1 |
| THTR 210  | Voice & Speech I                     | 2 |
| THTR 211  | Voice & Speech II                    | 3 |
| THTR 221  | Acting II                            | 3 |
| THTR 315  | Movement for the Actor I             | 3 |
| THTR 320  | Acting III                           | 3 |
| THTR 323  | Auditioning                          | 1 |
| THTR 415  | Stage Combat                         | 3 |
| THTR 484  | Advanced Acting: Professional Skills | 1 |

**Senior Project**

Complete the following course:

|          |                                                        |   |
|----------|--------------------------------------------------------|---|
| THTR 499 | Senior Project (taken during student's final semester) | 1 |
|----------|--------------------------------------------------------|---|

**Voice Course**

Complete three credits from the following courses: 3

|           |                                      |  |
|-----------|--------------------------------------|--|
| THTR 310  | Voice and Speech III                 |  |
| THTR 311  | Voice and Speech IV: Poetic Language |  |
| MUSI 102A | Performance Study                    |  |
| MUSI 110A | Opera Theatre I                      |  |
| MUSI 111A | Group Voice Class                    |  |
| MUSI 112A | Choir                                |  |
| MUSI 162A | Chamber Ensembles I                  |  |
| MUSI 195  | Applied Study I                      |  |
| MUSI 295  | Applied Study II                     |  |
| MUSI 310  | Opera Theatre II                     |  |
| MUSI 362  | Chamber Ensemble III: UM             |  |
| MUSI 395  | Applied Study III                    |  |
| MUSI 495  | Applied Study IV                     |  |

**Advanced Acting Experience**

Complete three of the following courses: 9

|          |                                 |  |
|----------|---------------------------------|--|
| THTR 321 | Advanced Acting: Practitioners  |  |
| THTR 420 | Advanced Acting: Comedy Styles  |  |
| THTR 421 | Advanced Acting: Classics       |  |
| THTR 425 | Advanced Acting: Devising       |  |
| THTR 426 | Advanced Acting: Special Skills |  |

**Staging Experience**

Complete one of the following courses: 3

|          |                    |  |
|----------|--------------------|--|
| THTR 370 | Stage Management I |  |
| THTR 375 | Directing I        |  |

**Production Experience<sup>2</sup>**

Complete the following course:

|          |           |   |
|----------|-----------|---|
| THTR 395 | Practicum | 1 |
|----------|-----------|---|

**Upper-Division Enrichment Electives**

Complete 6 credits in the following areas: 6

|                             |  |
|-----------------------------|--|
| Art (ARTZ)                  |  |
| Art History (ARTH)          |  |
| Creative Writing (CRWR)     |  |
| Dance (DANC)                |  |
| Global Leadership (GBLD)    |  |
| Honors (HONR)               |  |
| Literature (LIT)            |  |
| Media Arts (MART)           |  |
| Music (MUSI, MUSE, or MUST) |  |
| Theatre (THTR)              |  |

**Total Hours** 79<sup>1</sup> Students may select sections in the Scene Shop, Costume Shop, or Light Shop.<sup>2</sup> Registration is based on casting for Theatre & Dance productions.

## Four Year Plan

| Course                        | Title                                                    | Hours        |
|-------------------------------|----------------------------------------------------------|--------------|
| <b>Freshman</b>               |                                                          |              |
| <b>Autumn</b>                 |                                                          |              |
| MART 101L                     | Intro to Media Arts                                      | 3            |
| WRIT 101<br>or THTR 103       | College Writing I<br>or Introduction to House Management | 1-4          |
| THTR 106                      | Theatre Production I: Run Crew                           | 1            |
| THTR 107A                     | Theatre Production I: Construction Crew                  | 3            |
| THTR 194                      | Seminar: First Year                                      | 1            |
| THTR 202                      | Stagecraft I                                             | 3            |
| THTR 220                      | Acting I                                                 | 3            |
| <b>Hours</b>                  |                                                          | <b>15-18</b> |
| <b>Spring</b>                 |                                                          |              |
| DANC 100A                     | Introduction to Modern Dance                             | 3            |
| THTR 103<br>or WRIT 101       | Introduction to House Management<br>or College Writing I | 1-4          |
| MART 112A                     | Introduction to Film Editing                             | 3            |
| THTR 206                      | Theatre Production II: Run Crew                          | 1            |
| THTR 221                      | Acting II                                                | 3            |
| THTR 235L                     | Dramatic Literature                                      | 3            |
| <b>Hours</b>                  |                                                          | <b>14-17</b> |
| <b>Sophomore</b>              |                                                          |              |
| <b>Autumn</b>                 |                                                          |              |
| THTR 210                      | Voice & Speech I                                         | 2            |
| THTR 320                      | Acting III                                               | 3            |
| MAR 251                       | Digital Video Production Technology                      | 3            |
| THTR 323                      | Auditioning                                              | 1            |
| THTR 330H                     | Theatre History I                                        | 3            |
| THTR 395                      | Practicum (if cast)                                      | 1-3          |
| General Education Requirement |                                                          | 3            |
| <b>Hours</b>                  |                                                          | <b>16-18</b> |

|                               |                                      |              |
|-------------------------------|--------------------------------------|--------------|
| <b>Spring</b>                 |                                      |              |
| THTR 211                      | Voice & Speech II                    | 3            |
| THTR 321                      | Advanced Acting: Practitioners       | 3            |
| THTR 315                      | Movement for the Actor I             | 3            |
| THTR 331                      | Theatre History II                   | 3            |
| or MUSI 416                   | or Topics in Music History           |              |
| or MUSI 417                   | or Cultural Studies in Music         |              |
| THTR 395                      | Practicum (if cast)                  | 1-3          |
| THTR 484                      | Advanced Acting: Professional Skills | 1            |
| General Education Requirement |                                      | 3            |
| <b>Hours</b>                  |                                      | <b>17-19</b> |

**Junior****Autumn**

|                                                                                |                                                   |              |
|--------------------------------------------------------------------------------|---------------------------------------------------|--------------|
| MART 470                                                                       | Advanced Acting for Film I                        | 3            |
| THTR 370                                                                       | Stage Management I                                | 3            |
| or THTR 375                                                                    | or Directing I                                    |              |
| THTR 395                                                                       | Practicum (if cast)                               | 1-3          |
| THTR 415                                                                       | Stage Combat                                      | 3            |
| THTR 310                                                                       | Voice and Speech III (Voice course by advisement) | 3            |
| or THTR 311                                                                    | or Voice and Speech IV: Poetic Language           |              |
| or MUSI 102A                                                                   | or Performance Study                              |              |
| or MUSI 110A                                                                   | or Opera Theatre I                                |              |
| or MUSI 111A                                                                   | or Group Voice Class                              |              |
| or MUSI 112A                                                                   | or Choir                                          |              |
| or MUSI 162A                                                                   | or Chamber Ensembles I                            |              |
| or MUSI 195                                                                    | or Applied Study I                                |              |
| or MUSI 295                                                                    | or Applied Study II                               |              |
| or MUSI 310                                                                    | or Opera Theatre II                               |              |
| or MUSI 362                                                                    | or Chamber Ensemble III: UM                       |              |
| or MUSI 395                                                                    | or Applied Study III                              |              |
| or MUSI 495                                                                    | or Applied Study IV                               |              |
| Upper Division Enrichment Elective by advisement (or Adv. Acting) <sup>1</sup> |                                                   | 3            |
| General Education Requirement                                                  |                                                   | 3            |
| <b>Hours</b>                                                                   |                                                   | <b>19-21</b> |

**Spring**

|                                                               |                                   |              |
|---------------------------------------------------------------|-----------------------------------|--------------|
| THTR 395                                                      | Practicum (if cast)               | 1-3          |
| MART 491                                                      | Special Topics (Suggested course) | 1-12         |
| Upper Division Enrichment Elective by advisement <sup>2</sup> |                                   | 3            |
| General Education Requirement                                 |                                   | 6            |
| <b>Hours</b>                                                  |                                   | <b>11-24</b> |

**Senior****Autumn**

|                                                                   |                     |              |
|-------------------------------------------------------------------|---------------------|--------------|
| THTR 395                                                          | Practicum (if cast) | 1-3          |
| Advanced Acting elective (THTR 420, THTR 421, THTR 425, THTR 426) |                     | 3            |
| General Education Requirement                                     |                     | 6            |
| Upper Division Enrichment Elective by advisement <sup>2</sup>     |                     | 6            |
| <b>Hours</b>                                                      |                     | <b>16-18</b> |

**Spring**

|                                                                   |                |                |
|-------------------------------------------------------------------|----------------|----------------|
| THTR 395                                                          | Practicum      | 1-3            |
| THTR 499                                                          | Senior Project | 1              |
| Advanced Acting elective (THTR 420, THTR 421, THTR 425, THTR 426) |                | 3              |
| Upper Division Enrichment Elective by advisement <sup>2</sup>     |                | 3              |
| Elective                                                          |                | 6              |
| <b>Hours</b>                                                      |                | <b>14-16</b>   |
| <b>Total Hours</b>                                                |                | <b>122-151</b> |

*Last updated Autumn 2025*

<sup>1</sup> Advanced Acting: THTR 420 or THTR 421 or THTR 425 or THTR 426 or Elective Possibilities: MART 300 or MART 325 or MART 327 or MART 336 or MART 340 or MART 436 or MART 442 or MART 445 or MART 499 or THTR 332 or THTR 351

<sup>2</sup> Elective Possibilities: MART 300 or MART 325 or MART 327 or MART 336 or MART 340 or MART 436 or MART 442 or MART 445 or MART 499 or THTR 332 or THTR 351

## Theatre B.F.A. - Design & Technology General Degree Requirements

To earn a baccalaureate degree, all students must complete successfully, in addition to any other requirements, the University of Montana General Education Requirements. Please refer to the General Education Requirements page (p. 39) for more information.

Additional requirements for graduation can be found on the Degree/Certificate Requirements for Graduation page (p. 36).

Unless otherwise noted in individual program requirements, a minimum grade point average of 2.00 in all work attempted at the University of Montana-Missoula is required for graduation. Please see the Academic Policies and Procedures page (p. 25) for information on how your GPA is calculated.

Courses taken to satisfy the requirements of a major, minor, or certificate program must be completed with a grade of C- or better unless a higher grade is noted in the program requirements.

## Bachelor of Fine Arts - Theatre; Design and Technology Concentration

Students who intend to pursue the Design & Technology concentration will normally enter the University as Bachelor of Arts students in Theatre with a focus in pre-Design & Technology. They should then declare intent to pursue the BFA degree no later than the middle of the second semester of a four-year program. Students wishing to pursue a BFA in Theatre in the Design & Technology concentration must:

- Complete a one-year residency at the UM-Missoula campus which includes a minimum of 12 credits in Design & Technology.
- Attain a cumulative 2.5 overall GPA and a 3.0 GPA in Design & Technology coursework.
- Present a theatre resume and portfolio consisting of class and production work.
- Prepare a written statement explaining their educational and professional goals.

## Course Requirements

| Code                                   | Title                                   | Hours |
|----------------------------------------|-----------------------------------------|-------|
| <b>Lower-Division Required Courses</b> |                                         |       |
| Complete all of the following courses: |                                         |       |
| THTR 103                               | Introduction to House Management        | 1     |
| THTR 106                               | Theatre Production I: Run Crew          | 1     |
| THTR 202                               | Stagecraft I                            | 3     |
| THTR 220                               | Acting I                                | 3     |
| THTR 235L                              | Dramatic Literature                     | 3     |
| <b>Shop Experience <sup>1</sup></b>    |                                         |       |
| Complete the following course:         |                                         |       |
| THTR 107A                              | Theatre Production I: Construction Crew | 3     |
| <b>First-Year Seminar</b>              |                                         |       |
| Complete one of the following courses: |                                         | 1     |

|                                                               |                                         |           |
|---------------------------------------------------------------|-----------------------------------------|-----------|
| COLS 194                                                      | Seminar/Workshop                        |           |
| DANC 194                                                      | Seminar: First Year                     |           |
| THTR 194                                                      | Seminar/ Workshop                       |           |
| <b>Theatre History</b>                                        |                                         |           |
| Complete the following course:                                |                                         |           |
| THTR 330H                                                     | Theatre History I                       | 3         |
| <b>Advanced Writing</b>                                       |                                         |           |
| Complete one of the following courses:                        |                                         |           |
| MART 450                                                      | Topics in Film & Media Studies          |           |
| MUSI 416                                                      | Topics in Music History                 |           |
| MUSI 417                                                      | Cultural Studies in Music               |           |
| THTR 331                                                      | Theatre History II                      |           |
| <b>Design &amp; Technology Concentration Required Courses</b> |                                         |           |
| Complete all of the following courses:                        |                                         |           |
| ARTZ 105A                                                     | Visual Language - Drawing               | 3         |
| THTR 102A                                                     | Introduction to Theatre Design          | 3         |
| THTR 206                                                      | Theatre Production II: Run Crew         | 1         |
| THTR 255                                                      | Drafting for Theatre I                  | 3         |
| THTR 370                                                      | Stage Management I                      | 3         |
| <b>Shop Experiences<sup>2</sup></b>                           |                                         |           |
| Complete the following courses:                               |                                         |           |
| THTR 107A                                                     | Theatre Production I: Construction Crew | 6         |
| THTR 307                                                      | Production Construction I               | 3         |
| <b>Upper-Division Drafting Requirement</b>                    |                                         |           |
| Complete one of the following courses:                        |                                         |           |
| THTR 345                                                      | Pattern Making I                        |           |
| THTR 355                                                      | Computer Aid Draft & Applications       |           |
| <b>Junior Project</b>                                         |                                         |           |
| Complete the following course:                                |                                         |           |
| THTR 308                                                      | Production Team I                       | 2         |
| <b>Senior Project</b>                                         |                                         |           |
| Complete the following course:                                |                                         |           |
| THTR 408                                                      | Production Team II                      | 3         |
| <b>Design &amp; Technology Electives<sup>3</sup></b>          |                                         |           |
| Complete 26 elective credits in consultation with an advisor. |                                         | 26        |
| 12 credits must be upper-division.                            |                                         |           |
| <b>Total Hours</b>                                            |                                         | <b>77</b> |

<sup>1</sup> Students may select sections in the Scene Shop, Costume Shop, or Light Shop.

<sup>2</sup> Students complete two sections in the Scene Shop, Costume Shop, or Light Shop.

<sup>3</sup> Courses should be selected based on primary and secondary areas of interest in consultation with an advisor.

## Four Year Plan

| Course          | Title                                            | Hours |
|-----------------|--------------------------------------------------|-------|
| <b>Freshman</b> |                                                  |       |
| <b>Autumn</b>   |                                                  |       |
| THTR 102A       | Introduction to Theatre Design                   | 3     |
| THTR 103        | Introduction to House Management (last name M-Z) | 1 (0) |
| THTR 106        | Theatre Production I: Run Crew                   | 1     |
| THTR 107A       | Theatre Production I: Construction Crew          | 3     |
| THTR 194        | Seminar: First Year                              | 1     |

|                                            |                                                                              |                |
|--------------------------------------------|------------------------------------------------------------------------------|----------------|
| THTR 202                                   | Stagecraft I                                                                 | 3              |
| WRIT 101 (last name A-L) or Elective (M-Z) |                                                                              | 3-4            |
| <b>Hours</b>                               |                                                                              | <b>14-16</b>   |
| <b>Spring</b>                              |                                                                              |                |
| Elective (last name A-L) or WRIT 101 (M-Z) |                                                                              | 3-4            |
| ARTZ 105A                                  | Visual Language - Drawing                                                    | 3              |
| THTR 103                                   | Introduction to House Management (last name A-L)                             | 1 (0)          |
| THTR 206                                   | Theatre Production II: Run Crew                                              | 1              |
| THTR 107A                                  | Theatre Production I: Construction Crew                                      | 3              |
| THTR 255                                   | Drafting for Theatre I                                                       | 3              |
| THTR 245                                   | Int Costume Construction <sup>1</sup>                                        | 3              |
| or THTR 264                                | or Advanced Electrics                                                        |                |
| or THTR 256                                | or Intermediate Scenery Construction                                         |                |
| <b>Hours</b>                               |                                                                              | <b>16-18</b>   |
| <b>Sophomore</b>                           |                                                                              |                |
| <b>Autumn</b>                              |                                                                              |                |
| THTR 107A                                  | Theatre Production I: Construction Crew                                      | 3              |
| THTR 220                                   | Acting I                                                                     | 3              |
| THTR 3xx - Design course in primary area   |                                                                              | 3              |
| THTR 3xx - Design course by advisement     |                                                                              | 3              |
| General Education Requirement              |                                                                              | 3              |
| Theatre Elective in primary area           |                                                                              | 3              |
| <b>Hours</b>                               |                                                                              | <b>18</b>      |
| <b>Spring</b>                              |                                                                              |                |
| THTR 235L                                  | Dramatic Literature                                                          | 3              |
| THTR 307                                   | Production Construction I                                                    | 3              |
| General Education Requirement              |                                                                              | 6              |
| Elective                                   |                                                                              | 3              |
| THTR 245                                   | Int Costume Construction (or scenery elective (Scenery majors)) <sup>2</sup> | 3              |
| or THTR 460                                | or Theatre Lighting II                                                       |                |
| <b>Hours</b>                               |                                                                              | <b>18</b>      |
| <b>Junior</b>                              |                                                                              |                |
| <b>Autumn</b>                              |                                                                              |                |
| THTR 308                                   | Production Team I (by advisement)                                            | 1-12           |
| THTR 330H                                  | Theatre History I                                                            | 3              |
| THTR 370                                   | Stage Management I                                                           | 3              |
| Upper Division Theatre Elective            |                                                                              | 3              |
| General Education Requirement              |                                                                              | 3              |
| Elective                                   |                                                                              | 3              |
| <b>Hours</b>                               |                                                                              | <b>16-27</b>   |
| <b>Spring</b>                              |                                                                              |                |
| THTR 331                                   | Theatre History II                                                           | 3              |
| General Education Requirement              |                                                                              | 6              |
| Upper Division Theatre Elective            |                                                                              | 3              |
| Elective                                   |                                                                              | 6              |
| <b>Hours</b>                               |                                                                              | <b>18</b>      |
| <b>Senior</b>                              |                                                                              |                |
| <b>Autumn</b>                              |                                                                              |                |
| THTR 408                                   | Production Team II (by advisement)                                           | 1-12           |
| Upper Division Theatre Elective            |                                                                              | 6              |
| General Education Requirement              |                                                                              | 3              |
| Elective                                   |                                                                              | 3              |
| <b>Hours</b>                               |                                                                              | <b>13-24</b>   |
| <b>Spring</b>                              |                                                                              |                |
| Upper Division Theatre Elective            |                                                                              | 6              |
| Elective                                   |                                                                              | 9              |
| <b>Hours</b>                               |                                                                              | <b>15</b>      |
| <b>Total Hours</b>                         |                                                                              | <b>128-154</b> |

- <sup>1</sup> Costuming majors will take THTR 245  
Lighting majors will take THTR 264  
Scenery majors will take THTR 256
- <sup>2</sup> Costuming majors will take THTR 445  
Lighting majors will take THTR 460  
Scenery majors will take a scenery elective

## Theatre B.F.A. - Musical Theatre Performance

### General Degree Requirements

To earn a baccalaureate degree, all students must complete successfully, in addition to any other requirements, the University of Montana General Education Requirements. Please refer to the General Education Requirements page (p. 39) for more information.

Additional requirements for graduation can be found on the Degree/Certificate Requirements for Graduation page (p. 36).

Unless otherwise noted in individual program requirements, a minimum grade point average of 2.00 in all work attempted at the University of Montana-Missoula is required for graduation. Please see the Academic Policies and Procedures page (p. 25) for information on how your GPA is calculated.

Courses taken to satisfy the requirements of a major, minor, or certificate program must be completed with a grade of C- or better unless a higher grade is noted in the program requirements.

### Bachelor of Fine Arts - Theatre: Musical Theatre Performance Concentration

- Students who intend to pursue the Musical Theatre Performance concentration will normally enter the University as Bachelor of Arts students in theatre with a focus in pre-Musical Theatre performance. They should declare intent to pursue the BFA degree no later than the middle of the second semester of the four-year program. Admission is granted by audition at the end of the first year.
- In order to maintain healthy practice, students must take at least one singing and one dance technique course each semester in the program. Introductory courses will include an initial skill assessment to determine the appropriate placement level.

### Course Requirements

| Code                                   | Title                                   | Hours |
|----------------------------------------|-----------------------------------------|-------|
| <b>Lower-Division Required Courses</b> |                                         |       |
| Complete all of the following courses: |                                         |       |
| THTR 103                               | Introduction to House Management        | 1     |
| THTR 106                               | Theatre Production I: Run Crew          | 1     |
| THTR 202                               | Stagecraft I                            | 3     |
| THTR 220                               | Acting I                                | 3     |
| THTR 235L                              | Dramatic Literature                     | 3     |
| <b>Shop Experience<sup>1</sup></b>     |                                         |       |
| Complete the following course:         |                                         |       |
| THTR 107A                              | Theatre Production I: Construction Crew | 3     |
| <b>First-Year Seminar</b>              |                                         |       |

|                                        |                     |   |
|----------------------------------------|---------------------|---|
| Complete one of the following courses: |                     | 1 |
| COLS 194                               | Seminar/Workshop    |   |
| DANC 194                               | Seminar: First Year |   |
| THTR 194                               | Seminar/ Workshop   |   |

#### Theatre History

Complete the following course:

|           |                   |   |
|-----------|-------------------|---|
| THTR 330H | Theatre History I | 3 |
|-----------|-------------------|---|

#### Advanced Writing

Complete one of the following courses: 3

|          |                                |  |
|----------|--------------------------------|--|
| MART 450 | Topics in Film & Media Studies |  |
| MUSI 416 | Topics in Music History        |  |
| MUSI 417 | Cultural Studies in Music      |  |
| THTR 331 | Theatre History II             |  |

#### Theatre Courses

Complete all of the following courses:

|          |                                      |   |
|----------|--------------------------------------|---|
| THTR 210 | Voice & Speech I                     | 2 |
| THTR 221 | Acting II                            | 3 |
| THTR 249 | Stage Makeup I                       | 1 |
| THTR 320 | Acting III                           | 3 |
| THTR 322 | Musical Theatre Audition Techniques  | 2 |
| THTR 323 | Auditioning                          | 1 |
| THTR 410 | Advanced Acting: Musical Theatre     | 2 |
| THTR 484 | Advanced Acting: Professional Skills | 1 |

#### Senior Project

Complete the following course:

|          |                                                        |   |
|----------|--------------------------------------------------------|---|
| THTR 499 | Senior Project (taken during student's final semester) | 1 |
|----------|--------------------------------------------------------|---|

#### Music Courses

Complete all of the following courses:

|           |                          |   |
|-----------|--------------------------|---|
| MUSI 105  | Music Theory I           | 2 |
| MUSI 106  | Music Theory II          | 2 |
| MUSI 112A | Choir                    | 1 |
| MUSI 135A | Keyboard Skills I        | 1 |
| MUSI 136A | Keyboard Skills II       | 1 |
| MUSI 140  | Aural Perception I       | 2 |
| MUSI 141  | Aural Perception II      | 2 |
| MUSI 362  | Chamber Ensemble III: UM | 1 |

#### Music Applied Study<sup>2</sup>

Complete all of the following courses:

|          |                   |   |
|----------|-------------------|---|
| MUSI 195 | Applied Study I   | 4 |
| MUSI 295 | Applied Study II  | 4 |
| MUSI 395 | Applied Study III | 4 |
| MUSI 495 | Applied Study IV  | 4 |

#### Modern Dance Experience

Complete one of the following courses: 2-3

|           |                              |  |
|-----------|------------------------------|--|
| DANC 100A | Introduction to Modern Dance |  |
| DANC 200A | Contemporary Modern II       |  |
| DANC 300  | Contemporary Modern III      |  |
| DANC 400  | Contemporary Modern IV       |  |

#### Ballet Experience

Complete one of the following courses: 2-3

|           |                        |  |
|-----------|------------------------|--|
| DANC 110A | Introduction to Ballet |  |
|-----------|------------------------|--|



|                                                                                   |                            |              |
|-----------------------------------------------------------------------------------|----------------------------|--------------|
| DANC 210A                                                                         | Ballet II                  |              |
| DANC 310                                                                          | Ballet III                 |              |
| DANC 410                                                                          | Ballet IV                  |              |
| <b>Jazz Experience</b>                                                            |                            |              |
| Complete one of the following courses:                                            |                            | 2-3          |
| DANC 115A                                                                         | Introduction to Jazz Dance |              |
| DANC 215A                                                                         | Jazz Dance II              |              |
| DANC 315                                                                          | Jazz III                   |              |
| <b>Technique Experiences</b>                                                      |                            |              |
| Complete all of the following courses:                                            |                            |              |
| DANC 108A                                                                         | Dance Forms (Tap)          | 1            |
| DANC 108A                                                                         | Dance Forms (Hip-Hop)      | 3            |
| DANC 165A                                                                         | Dance Forms: African       | 3            |
| DANC 217                                                                          | Musical Theatre Styles     | 2            |
| <b>Dance Elective</b> <sup>3</sup>                                                |                            |              |
| Complete one elective Dance (DANC) course chosen in consultation with an advisor. |                            | 1-3          |
| <b>Production Experience</b> <sup>4</sup>                                         |                            |              |
| Complete three credits of the following course:                                   |                            |              |
| THTR 395                                                                          |                            | 3            |
| <b>Total Hours</b>                                                                |                            | <b>84-89</b> |

- <sup>1</sup> Students may select sections in the Scene Shop, Costume Shop, or Light Shop.
- <sup>2</sup> Students must take two credits of Applied Study each semester.
- <sup>3</sup> Course should be selected based on primary and secondary areas of interest in consultation with an advisor. Students are required to take at least one dance technique course each semester.
- <sup>4</sup> Registration based on casting for Theatre & Dance productions.

## Four Year Plan

| Course           | Title                                   | Hours        |
|------------------|-----------------------------------------|--------------|
| <b>Freshman</b>  |                                         |              |
| <b>Autumn</b>    |                                         |              |
| DANC 100A        | Introduction to Modern Dance            | 3            |
| MUSI 135A        | Keyboard Skills I                       | 1            |
| MUSI 195         | Applied Study I                         | 2            |
| THTR 103         | Introduction to House Management        | 1            |
| THTR 106         | Theatre Production I: Run Crew          | 1            |
| THTR 194         | Seminar: First Year                     | 1            |
| THTR 202         | Stagecraft I                            | 3            |
| THTR 220         | Acting I                                | 3            |
| WRIT 101         | College Writing I (last name A-L)       | 4 (0)        |
| <b>Hours</b>     |                                         | <b>15-19</b> |
| <b>Spring</b>    |                                         |              |
| DANC 110A        | Introduction to Ballet                  | 3            |
| MUSI 112A        | Choir                                   | 1            |
| MUSI 136A        | Keyboard Skills II                      | 1            |
| MUSI 195         | Applied Study I                         | 1-4          |
| THTR 107A        | Theatre Production I: Construction Crew | 3            |
| THTR 221         | Acting II                               | 3            |
| THTR 235L        | Dramatic Literature                     | 3            |
| WRIT 101         | College Writing I (last name M-Z)       | 4 (0)        |
| <b>Hours</b>     |                                         | <b>15-22</b> |
| <b>Sophomore</b> |                                         |              |
| <b>Autumn</b>    |                                         |              |
| DANC 115A        | Introduction to Jazz Dance              | 3            |

|                               |                                                                                    |              |
|-------------------------------|------------------------------------------------------------------------------------|--------------|
| MUSI 105                      | Music Theory I                                                                     | 2            |
| MUSI 140                      | Aural Perception I                                                                 | 2            |
| MUSI 295                      | Applied Study II                                                                   | 1-4          |
| THTR 210                      | Voice & Speech I                                                                   | 2            |
| THTR 320                      | Acting III                                                                         | 3            |
| THTR 322                      | Musical Theatre Audition Techniques                                                | 2            |
| THTR 395                      | Practicum (if cast)                                                                | 1-3          |
| <b>Hours</b>                  |                                                                                    | <b>16-21</b> |
| <b>Spring</b>                 |                                                                                    |              |
| DANC 217                      | Musical Theatre Styles                                                             | 2            |
| MUSI 106                      | Music Theory II                                                                    | 2            |
| MUSI 141                      | Aural Perception II                                                                | 2            |
| MUSI 295                      | Applied Study II                                                                   | 1-4          |
| THTR 321                      | Advanced Acting: Practitioners (Advanced Acting or Special Topic, as space allows) | 3            |
| or THTR 420                   | or Advanced Acting: Comedy Styles                                                  |              |
| or THTR 421                   | or Advanced Acting: Classics                                                       |              |
| or THTR 425                   | or Advanced Acting: Devising                                                       |              |
| or THTR 426                   | or Advanced Acting: Special Skills                                                 |              |
| or MART 470                   | or Advanced Acting for Film I                                                      |              |
| or MART 491                   | or Special Topics                                                                  |              |
| or THTR 391                   | or Special Topics/Experimental Courses                                             |              |
| or THTR 491                   | or Special Topics                                                                  |              |
| THTR 323                      | Auditioning                                                                        | 1            |
| THTR 395                      | Practicum (if cast)                                                                | 1-3          |
| General Education Requirement |                                                                                    | 3            |
| <b>Hours</b>                  |                                                                                    | <b>15-20</b> |
| <b>Junior</b>                 |                                                                                    |              |
| <b>Autumn</b>                 |                                                                                    |              |
| DANC 108A                     | Dance Forms                                                                        | 1-8          |
| MUSI 362                      | Chamber Ensemble III: UM                                                           | 1            |
| MUSI 395                      | Applied Study III                                                                  | 1-4          |
| THTR 249                      | Stage Makeup I                                                                     | 1            |
| THTR 330H                     | Theatre History I                                                                  | 3            |
| THTR 395                      | Practicum (if cast)                                                                | 1-3          |
| General Education Requirement |                                                                                    | 6            |
| <b>Hours</b>                  |                                                                                    | <b>14-26</b> |
| <b>Spring</b>                 |                                                                                    |              |
| DANC Elective                 |                                                                                    | 2            |
| MUSI 395                      | Applied Study III                                                                  | 1-4          |
| MUSI 416                      | Topics in Music History                                                            | 3            |
| or THTR 331                   | or Theatre History II                                                              |              |
| THTR 395                      | Practicum (if cast)                                                                | 1-3          |
| THTR 321                      | Advanced Acting: Practitioners (Advanced Acting or Special Topic, as space allows) | 3            |
| or THTR 420                   | or Advanced Acting: Comedy Styles                                                  |              |
| or THTR 421                   | or Advanced Acting: Classics                                                       |              |
| or THTR 425                   | or Advanced Acting: Devising                                                       |              |
| or THTR 426                   | or Advanced Acting: Special Skills                                                 |              |
| or MART 470                   | or Advanced Acting for Film I                                                      |              |
| or MART 491                   | or Special Topics                                                                  |              |
| or THTR 391                   | or Special Topics/Experimental Courses                                             |              |
| or THTR 491                   | or Special Topics                                                                  |              |
| General Education Requirement |                                                                                    | 3            |
| <b>Hours</b>                  |                                                                                    | <b>13-18</b> |
| <b>Senior</b>                 |                                                                                    |              |
| <b>Autumn</b>                 |                                                                                    |              |
| DANC elective                 |                                                                                    | 2            |
| MUSI 362                      | Chamber Ensemble III: UM                                                           | 1            |
| MUSI 495                      | Applied Study IV                                                                   | 1-4          |
| THTR 395                      | Practicum (if cast)                                                                | 1-3          |
| THTR 410                      | Advanced Acting: Musical Theatre                                                   | 2            |

|                                                                                                                                  |                                                                                                                                                                                                                                                                                                                                                    |                |
|----------------------------------------------------------------------------------------------------------------------------------|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|----------------|
| THTR 321<br>or THTR 420<br>or THTR 421<br>or THTR 425<br>or THTR 426<br>or MART 470<br>or MART 491<br>or THTR 391<br>or THTR 491 | Advanced Acting: Practitioners (Advanced Acting or Special Topic, as space allows)<br>or Advanced Acting: Comedy Styles<br>or Advanced Acting: Classics<br>or Advanced Acting: Devising<br>or Advanced Acting: Special Skills<br>or Advanced Acting for Film I<br>or Special Topics<br>or Special Topics/Experimental Courses<br>or Special Topics | 3              |
| General Education Requirement                                                                                                    |                                                                                                                                                                                                                                                                                                                                                    | 6              |
| <b>Hours</b>                                                                                                                     |                                                                                                                                                                                                                                                                                                                                                    | <b>16-21</b>   |
| <b>Spring</b>                                                                                                                    |                                                                                                                                                                                                                                                                                                                                                    |                |
| DANC Elective                                                                                                                    |                                                                                                                                                                                                                                                                                                                                                    | 2              |
| MUSI 495                                                                                                                         | Applied Study IV                                                                                                                                                                                                                                                                                                                                   | 1-4            |
| THTR 395                                                                                                                         | Practicum (if cast)                                                                                                                                                                                                                                                                                                                                | 1-3            |
| THTR 484                                                                                                                         | Advanced Acting: Professional Skills                                                                                                                                                                                                                                                                                                               | 1              |
| THTR 499                                                                                                                         | Senior Project                                                                                                                                                                                                                                                                                                                                     | 1              |
| THTR 321<br>or THTR 420<br>or THTR 421<br>or THTR 425<br>or THTR 426<br>or MART 470<br>or MART 491<br>or THTR 391<br>or THTR 491 | Advanced Acting: Practitioners (Advanced Acting or Special Topic, as space allows)<br>or Advanced Acting: Comedy Styles<br>or Advanced Acting: Classics<br>or Advanced Acting: Devising<br>or Advanced Acting: Special Skills<br>or Advanced Acting for Film I<br>or Special Topics<br>or Special Topics/Experimental Courses<br>or Special Topics | 3              |
| General Education Requirement                                                                                                    |                                                                                                                                                                                                                                                                                                                                                    | 2              |
| <b>Hours</b>                                                                                                                     |                                                                                                                                                                                                                                                                                                                                                    | <b>11-16</b>   |
| <b>Total Hours</b>                                                                                                               |                                                                                                                                                                                                                                                                                                                                                    | <b>115-163</b> |

*Last updated Autumn 2024*

## Musical Theatre Performance Minor General Degree Requirements

To earn a baccalaureate degree, all students must complete successfully, in addition to any other requirements, the University of Montana General Education Requirements. Please refer to the General Education Requirements page (p. 39) for more information.

Additional requirements for graduation can be found on the Degree/Certificate Requirements for Graduation page (p. 36).

Unless otherwise noted in individual program requirements, a minimum grade point average of 2.00 in all work attempted at the University of Montana-Missoula is required for graduation. Please see the Academic Policies and Procedures page (p. 25) for information on how your GPA is calculated.

Courses taken to satisfy the requirements of a major, minor, or certificate program must be completed with a grade of C- or better unless a higher grade is noted in the program requirements.

### Minor - Musical Theatre Performance Course Requirements

| Code                                        | Title                            | Hours |
|---------------------------------------------|----------------------------------|-------|
| <b>Introductory/Foundational Experience</b> |                                  |       |
| Complete all of the following courses:      |                                  |       |
| THTR 103                                    | Introduction to House Management | 1     |
| THTR 106                                    | Theatre Production I: Run Crew   | 1     |
| <b>Acting Experience</b>                    |                                  |       |

|                                                                                                                                             |                                     |              |
|---------------------------------------------------------------------------------------------------------------------------------------------|-------------------------------------|--------------|
| Complete all of the following courses:                                                                                                      |                                     |              |
| THTR 220                                                                                                                                    | Acting I                            | 3            |
| THTR 221                                                                                                                                    | Acting II                           | 3            |
| <b>Dance Experience I</b>                                                                                                                   |                                     |              |
| Complete all of the following courses:                                                                                                      |                                     |              |
| DANC 100A                                                                                                                                   | Introduction to Modern Dance        | 3            |
| DANC 217                                                                                                                                    | Musical Theatre Styles              | 2            |
| <b>Dance Experience II</b>                                                                                                                  |                                     |              |
| Complete one of the following courses:                                                                                                      |                                     |              |
| DANC 110A                                                                                                                                   | Introduction to Ballet              |              |
| DANC 115A                                                                                                                                   | Introduction to Jazz Dance          |              |
| <b>Voice Experience I</b>                                                                                                                   |                                     |              |
| Complete the following course:                                                                                                              |                                     |              |
| MUSI 112A                                                                                                                                   | Choir                               | 1            |
| <b>History Experience</b>                                                                                                                   |                                     |              |
| Complete the following course:                                                                                                              |                                     |              |
| MUSI 416                                                                                                                                    | Topics in Music History             | 3            |
| <b>Performance Experience</b>                                                                                                               |                                     |              |
| Complete the following course:                                                                                                              |                                     |              |
| MUSI 362                                                                                                                                    | Chamber Ensemble III: UM            | 1            |
| <b>Voice Experience II</b>                                                                                                                  |                                     |              |
| Complete one of the following:                                                                                                              |                                     |              |
| 4 credits of the following courses:                                                                                                         |                                     |              |
| MUSI 195                                                                                                                                    | Applied Study I                     |              |
| MUSI 295                                                                                                                                    | Applied Study II                    |              |
| MUSI 395                                                                                                                                    | Applied Study III                   |              |
| MUSI 495                                                                                                                                    | Applied Study IV                    |              |
| Or, complete all of the following courses:                                                                                                  |                                     |              |
| THTR 322                                                                                                                                    | Musical Theatre Audition Techniques |              |
| THTR 410                                                                                                                                    | Advanced Acting: Musical Theatre    |              |
| <b>Musical Theatre Minor Focus Area</b> <sup>1</sup>                                                                                        |                                     |              |
| Complete 2-3 credits in a focus area (acting, dance, music, or practicum) selected with your advisor. These credits must be upper-division. |                                     | 2-3          |
| <b>Total Hours</b>                                                                                                                          |                                     | <b>27-28</b> |

<sup>1</sup> An advisor in Theatre & Dance must be consulted for guidelines regarding one's specific focus.

## Theatre Education Minor General Degree Requirements

To earn a baccalaureate degree, all students must complete successfully, in addition to any other requirements, the University of Montana General Education Requirements. Please refer to the General Education Requirements page (p. 39) for more information.

Additional requirements for graduation can be found on the Degree/Certificate Requirements for Graduation page (p. 36).

Unless otherwise noted in individual program requirements, a minimum grade point average of 2.00 in all work attempted at the University of Montana-Missoula is required for graduation. Please see the Academic

Policies and Procedures page (p. 25) for information on how your GPA is calculated.

Courses taken to satisfy the requirements of a major, minor, or certificate program must be completed with a grade of C- or better unless a higher grade is noted in the program requirements.

## Minor - Theatre Education

Individuals completing this minor in Theatre Education must also complete the teaching track of a major in another content area. Students must be formally admitted to the Teacher Education Program and complete all of the professional education licensure requirements. See the Department of Teaching and Learning (<https://www.umt.edu/education/departments/teaching-and-learning/default.php>) in the College of Education for more information.

### Course Requirements

| Code                                   | Title                          | Hours     |
|----------------------------------------|--------------------------------|-----------|
| <b>Lower-Division Core</b>             |                                |           |
| Complete all of the following courses: |                                |           |
| THTR 106                               | Theatre Production I: Run Crew | 1         |
| THTR 202                               | Stagecraft I                   | 3         |
| THTR 220                               | Acting I                       | 3         |
| THTR 235L                              | Dramatic Literature            | 3         |
| <b>Upper-Division Core</b>             |                                |           |
| Complete all of the following courses: |                                |           |
| THTR 330H                              | Theatre History I              | 3         |
| THTR 370                               | Stage Management I             | 3         |
| THTR 375                               | Directing I                    | 3         |
| THTR 439                               | Methods of Teaching Theatre    | 3         |
| <b>Total Hours</b>                     |                                | <b>22</b> |

### Secondary Teaching Licensure

For endorsement to teach this subject, a student also must gain admission to the Teacher Education Program and meet all the requirements for secondary teaching licensure (p. 151). For more information, see the Teaching and Learning Department webpage (<https://www.umt.edu/education/departments/currinst/default.php>).

## Theatre Minor

### General Degree Requirements

To earn a baccalaureate degree, all students must complete successfully, in addition to any other requirements, the University of Montana General Education Requirements. Please refer to the General Education Requirements page (p. 39) for more information.

Additional requirements for graduation can be found on the Degree/Certificate Requirements for Graduation page (p. 36).

Unless otherwise noted in individual program requirements, a minimum grade point average of 2.00 in all work attempted at the University of Montana-Missoula is required for graduation. Please see the Academic Policies and Procedures page (p. 25) for information on how your GPA is calculated.

Courses taken to satisfy the requirements of a major, minor, or certificate program must be completed with a grade of C- or better unless a higher grade is noted in the program requirements.

## Minor - Theatre Course Requirements

| Code                                                                                                                                                           | Title                                   | Hours     |
|----------------------------------------------------------------------------------------------------------------------------------------------------------------|-----------------------------------------|-----------|
| <b>Shop Experience <sup>1</sup></b>                                                                                                                            |                                         |           |
| Complete the following course:                                                                                                                                 |                                         |           |
| THTR 107A                                                                                                                                                      | Theatre Production I: Construction Crew | 3         |
| <b>Introductory/Foundational Experience</b>                                                                                                                    |                                         |           |
| Complete one of the following courses:                                                                                                                         |                                         | 3         |
| THTR 101L                                                                                                                                                      | Introduction to Theatre                 |           |
| THTR 102A                                                                                                                                                      | Introduction to Theatre Design          |           |
| THTR 113A                                                                                                                                                      | Introduction to Voice Acting            |           |
| THTR 120A                                                                                                                                                      | Introduction to Acting I                |           |
| <b>Production Experience</b>                                                                                                                                   |                                         |           |
| Complete one of the following courses:                                                                                                                         |                                         | 1         |
| THTR 103                                                                                                                                                       | Introduction to House Management        |           |
| THTR 106                                                                                                                                                       | Theatre Production I: Run Crew          |           |
| THTR 395                                                                                                                                                       | Practicum                               |           |
| <b>Theory/Literature/History Experience</b>                                                                                                                    |                                         |           |
| Complete one of the following courses:                                                                                                                         |                                         | 3         |
| THTR 202                                                                                                                                                       | Stagecraft I                            |           |
| THTR 235L                                                                                                                                                      | Dramatic Literature                     |           |
| THTR 330H                                                                                                                                                      | Theatre History I                       |           |
| THTR 331                                                                                                                                                       | Theatre History II                      |           |
| <b>Additional Requirements <sup>2</sup></b>                                                                                                                    |                                         |           |
| Complete 12 credits in a focus area (acting, costumes, literature/history, scenery, etc.) selected with an advisor. 8 of these credits must be upper-division. |                                         | 12        |
| <b>Total Hours</b>                                                                                                                                             |                                         | <b>22</b> |

<sup>1</sup> Students may select sections in the Scene Shop, Costume Shop, or Light Shop.

<sup>2</sup> An advisor in Theatre & Dance must be consulted for guidelines regarding one's specific focus. Dance, Media Arts, or Music courses may count toward these required electives with approval from advisor.

## School of Visual and Media Arts

### Art

The School of Visual and Media Arts provides a comprehensive education in studio art, including intensive hands-on studio practice, art history, criticism, and theory. Programs provide thorough professional training for students interested in careers in the field of art.

Undergraduate degree offerings include the Bachelor of Arts and the Bachelor of Fine Arts in Art. Areas of specialization are:

- Ceramics
- Drawing
- Painting
- Photography

- Printmaking
- Sculpture

## Media Arts

The undergraduate program in Media Arts offers a Bachelor of Arts degree that consists of a uniquely integrated curriculum centered in digital technology as a storytelling and artistic medium. The course of instruction is comprehensive and combines the areas of digital filmmaking and integrated digital media. The undergraduate program also offers Bachelor of Fine Arts degrees with majors in

- Media Arts
- Game Design and Interactive Media
- Sound Design and Media Technology

For more information on the academic programs and to experience the creative work of Media Arts students please visit the Media Arts website (<https://svma.umt.edu/>).

## Advanced Placement Policy

All students, including those who have taken AP examinations, must submit a portfolio to challenge art classes. Undergraduate students may challenge foundations courses only ARTZ 105A and ARTZ 108A.

Portfolios are reviewed at the beginning of each semester. The challenge process waives the requirement to take a specific class, but does not provide any credits. The process of portfolio reviews is as follows:

- Students submit a portfolio of ten .jpeg files or pieces of actual work to the school office two weeks prior to the beginning of the semester.
- If challenging more than one course, students submit examples of work for each course, for example:
  - ten drawing samples for ARTZ 105A, or
  - ten 3-D pieces for ARTZ 108A.

## Transfer Students

Students with transfer credits from another institution must contact the school director for review of transfer transcripts to assess course equivalents.

- Art B.A. (p. 109)
- Art B.A. - Art Education (p. 110)
- Art B.F.A. (p. 111)
- Art B.F.A. - Art Education (p. 112)
- Art History and Criticism Minor (p. 113)
- Art Studio Minor (p. 113)
- Media Arts B.A. (p. 114)
- Media Arts B.F.A. (p. 115)
- Game Design & Interactive Media B.F.A. (p. 117)
- Sound Design & Media Technology B.F.A. (p. 118)
- Media Arts Minor (p. 119)
- Ceramics Certificate (p. 120)
- Creative Coding Certificate (p. 120)
- Creative Entrepreneurship Certificate (p. 121)
- Digital & Graphic Design Certificate (p. 121)
- Documentary Film Certificate (p. 122)
- Game Design Certificate (p. 122)

- Interactive Art & Media Certificate (p. 122)
- The New West: Art and the Environment Certificate (p. 123)
- Photography and Digital Imaging Certificate (p. 123)
- Sonic Arts Certificate (p. 123)
- Sound Design Certificate (p. 124)
- Sound Production Fundamentals Certificate (p. 124)
- Web Design Certificate (p. 125)

## Art B.A.

### General Degree Requirements

To earn a baccalaureate degree, all students must complete successfully, in addition to any other requirements, the University of Montana General Education Requirements. Please refer to the General Education Requirements page (p. 39) for more information.

Additional requirements for graduation can be found on the Degree/Certificate Requirements for Graduation page (p. 36).

Unless otherwise noted in individual program requirements, a minimum grade point average of 2.00 in all work attempted at the University of Montana-Missoula is required for graduation. Please see the Academic Policies and Procedures page (p. 25) for information on how your GPA is calculated.

Courses taken to satisfy the requirements of a major, minor, or certificate program must be completed with a grade of C- or better unless a higher grade is noted in the program requirements.

## Bachelor of Arts - Art

- This major requires a minimum grade of C in all required courses.

### Course Requirements

| Code                                                          | Title                                      | Hours |
|---------------------------------------------------------------|--------------------------------------------|-------|
| <b>Shared Foundation Requirements</b>                         |                                            |       |
| <b>Foundation Requirements</b>                                |                                            |       |
| ARTH 150H                                                     | Introduction to Art History                | 3     |
| ARTZ 105A                                                     | Visual Language - Drawing                  | 3     |
| ARTZ 108A                                                     | Visual Language - 3-D Foundations          | 3     |
| Complete one of the following courses:                        |                                            | 3     |
| GDSN 149A                                                     | Digital Imaging I                          |       |
| MART 101L                                                     | Intro to Media Arts                        |       |
| MART 112A                                                     | Introduction to Film Editing               |       |
| MART 120                                                      | Creative Coding I                          |       |
| <b>Intermediate Level Requirements <sup>1</sup></b>           |                                            |       |
| <b>Intermediate Level Requirements</b>                        |                                            |       |
| ARTH 201H                                                     | Art of World Civilization: 1400 to Present | 3     |
| ARTH 250L                                                     | Introduction to Art Criticism              | 3     |
| Complete 12 credits of the following courses:                 |                                            | 12    |
| Art (ARTZ) and Graphic Design (GDSN) courses at the 200 level |                                            |       |
| Media Arts (MART) courses at the 200 or 300 level             |                                            |       |
| <b>Upper-Division Level Requirements</b>                      |                                            |       |
| Complete all of the following courses:                        |                                            |       |
| ARTH 350                                                      | Contemporary Art and Art Criticism         | 3     |

|                                                                                                        |    |
|--------------------------------------------------------------------------------------------------------|----|
| 12 credits of Art (ARTZ), Graphic Design (GDSN), or Media Arts (MART) courses at the 300 and 400 level | 12 |
| 3 credits in Art History (ARTH) at the 300 or 400 level                                                | 3  |

**Capstone Experience**

|                                        |     |
|----------------------------------------|-----|
| Complete one or both of the following: | 0-3 |
| Knowles Gallery Exhibition             |     |

|                                          |  |
|------------------------------------------|--|
| ARTZ 494 Seminar- Professional Practices |  |
|------------------------------------------|--|

|                    |              |
|--------------------|--------------|
| <b>Total Hours</b> | <b>48-51</b> |
|--------------------|--------------|

## Four Year Plan

| Course                                        | Title                                                     | Hours     |
|-----------------------------------------------|-----------------------------------------------------------|-----------|
| <b>Freshman</b>                               |                                                           |           |
| <b>Autumn</b>                                 |                                                           |           |
| ARTZ 105A                                     | Visual Language - Drawing                                 | 3         |
| ARTH 150H                                     | Introduction to Art History                               | 3         |
| WRIT 101                                      | College Writing I                                         | 4         |
| Math Course                                   |                                                           | 3         |
| General Education Requirements                |                                                           | 3         |
| <b>Hours</b>                                  |                                                           | <b>16</b> |
| <b>Spring</b>                                 |                                                           |           |
| ARTZ 108A<br>or MART 120                      | Visual Language - 3-D Foundations<br>or Creative Coding I | 3         |
| GDSN 149A                                     | Digital Imaging I                                         | 3         |
| MART 101L                                     | Intro to Media Arts                                       | 3         |
| General Education Requirements                |                                                           | 3         |
| <b>Hours</b>                                  |                                                           | <b>12</b> |
| <b>Sophomore</b>                              |                                                           |           |
| <b>Autumn</b>                                 |                                                           |           |
| ARTH 201H                                     | Art of World Civilization: 1400 to Present                | 3         |
| Intermediate Studio Requirements <sup>1</sup> |                                                           | 6         |
| Foreign Language                              |                                                           | 3         |
| General Education Requirements                |                                                           | 3         |
| <b>Hours</b>                                  |                                                           | <b>15</b> |
| <b>Spring</b>                                 |                                                           |           |
| Intermediate Studio Requirement <sup>1</sup>  |                                                           | 3         |
| Upper Division Studio Elective                |                                                           | 3         |
| Foreign Language                              |                                                           | 3         |
| General Education Requirements                |                                                           | 3         |
| <b>Hours</b>                                  |                                                           | <b>12</b> |
| <b>Junior</b>                                 |                                                           |           |
| <b>Autumn</b>                                 |                                                           |           |
| ARTH 250L                                     | Introduction to Art Criticism                             | 3         |
| Intermediate Studio Requirement <sup>1</sup>  |                                                           | 6         |
| Upper Division Studio Elective                |                                                           | 3         |
| Elective                                      |                                                           | 3         |
| <b>Hours</b>                                  |                                                           | <b>15</b> |
| <b>Spring</b>                                 |                                                           |           |
| ARTH 350                                      | Contemporary Art and Art Criticism                        | 3         |
| Upper Division Studio Elective                |                                                           | 3         |
| Upper Division Elective                       |                                                           | 6         |
| Elective                                      |                                                           | 3         |
| <b>Hours</b>                                  |                                                           | <b>15</b> |
| <b>Senior</b>                                 |                                                           |           |
| <b>Autumn</b>                                 |                                                           |           |
| Upper Division Elective                       |                                                           | 6         |
| Upper Division Studio Elective                |                                                           | 3         |
| Elective                                      |                                                           | 3         |
| Upper Division Art History Elective           |                                                           | 3         |
| <b>Hours</b>                                  |                                                           | <b>15</b> |

|                         |            |
|-------------------------|------------|
| <b>Spring</b>           |            |
| Upper Division Elective | 6          |
| Elective                | 9          |
| <b>Hours</b>            | <b>15</b>  |
| <b>Total Hours</b>      | <b>115</b> |

*Last Updated Autumn 2024*

<sup>1</sup> 9 credits must be taken from the ARTZ and GDSN prefixes at the 200-level. The remaining 6 must be taken from the ARTZ and GDSN prefixes at the 200-level, and from MART at the 200-300-level.

## Art B.A. - Art Education

### General Degree Requirements

To earn a baccalaureate degree, all students must complete successfully, in addition to any other requirements, the University of Montana General Education Requirements. Please refer to the General Education Requirements page (p. 39) for more information.

Additional requirements for graduation can be found on the Degree/Certificate Requirements for Graduation page (p. 36).

Unless otherwise noted in individual program requirements, a minimum grade point average of 2.00 in all work attempted at the University of Montana-Missoula is required for graduation. Please see the Academic Policies and Procedures page (p. 25) for information on how your GPA is calculated.

Courses taken to satisfy the requirements of a major, minor, or certificate program must be completed with a grade of C- or better unless a higher grade is noted in the program requirements.

### Bachelor of Arts - Art; Art Education Concentration

- This major requires a minimum grade of C in all required courses.
- Art Education licensure is earned by taking classes in both the School of Visual and Media Arts and the Phyllis J. Washington College of Education (<https://www.umt.edu/education/>). Students complete their BA or BFA in Art in conjunction with courses required from the College of Education.
- Montana Teaching Certification in Art K-12 requires a BA or BFA in Art with a concentration in Art Education, which extends beyond the 120-credit limit, or an MA in Curriculum and Instruction with the required undergraduate credits for teacher certification in art. In addition, students are required to take 35 credits of EDU classes and a Native American Studies Course.
- Those interested in teaching in K-12 schools must complete the teaching concentration of a major in a teaching content area plus the Teacher Education Program through the Department of Teaching and Learning. Additional teaching areas can be added through completion of the teaching concentration of a major or a teaching/education minor in that content area.
- Secondary Education Licensure Program (<https://www.umt.edu/education/departments/teaching-and-learning/tep/default.php>)



- To complete this Art Education concentration, you need to contact the Teaching and Learning Department (<https://www.umt.edu/education/departments/teaching-and-learning/default.php>).

## Course Requirements

| Code                                                                                                   | Title                                      | Hours        |
|--------------------------------------------------------------------------------------------------------|--------------------------------------------|--------------|
| <b>Foundation Requirements</b>                                                                         |                                            |              |
| Complete all of the following courses:                                                                 |                                            |              |
| ARTH 150H                                                                                              | Introduction to Art History                | 3            |
| ARTZ 105A                                                                                              | Visual Language - Drawing                  | 3            |
| ARTZ 108A                                                                                              | Visual Language - 3-D Foundations          | 3            |
| Complete one of the following courses:                                                                 |                                            | 3            |
| GDSN 149A                                                                                              | Digital Imaging I                          |              |
| MART 101L                                                                                              | Intro to Media Arts                        |              |
| MART 112A                                                                                              | Introduction to Film Editing               |              |
| MART 120                                                                                               | Creative Coding I                          |              |
| <b>Intermediate Level Requirements</b>                                                                 |                                            |              |
| Complete all of the following courses:                                                                 |                                            |              |
| ARTH 201H                                                                                              | Art of World Civilization: 1400 to Present | 3            |
| ARTH 250L                                                                                              | Introduction to Art Criticism              | 3            |
| Complete 12 credits of the following courses:                                                          |                                            | 12           |
| Art (ARTZ) and Graphic Design (GDSN) courses at the 200 level                                          |                                            |              |
| Media Arts (MART) courses at the 200 or 300 level                                                      |                                            |              |
| <b>Upper-Division Level Requirements</b>                                                               |                                            |              |
| Complete all of the following courses:                                                                 |                                            |              |
| ARTH 350                                                                                               | Contemporary Art and Art Criticism         | 3            |
| 12 credits of Art (ARTZ), Graphic Design (GDSN), or Media Arts (MART) courses at the 300 and 400 level |                                            | 12           |
| 3 credits in Art History (ARTH) at the 300 or 400 level                                                |                                            | 3            |
| <b>Capstone Experience</b>                                                                             |                                            |              |
| Complete one or both of the following:                                                                 |                                            | 0-3          |
| Knowles Gallery Exhibition                                                                             |                                            |              |
| ARTZ 494                                                                                               | Seminar- Professional Practices            |              |
| <b>Art Education Requirements</b>                                                                      |                                            |              |
| ARTZ 402                                                                                               | Teaching Art I - K-12                      | 3            |
| ARTZ 403                                                                                               | Teaching Art II - K-12                     | 3            |
| <b>Total Hours</b>                                                                                     |                                            | <b>54-57</b> |

## Secondary Teaching Licensure

For endorsement to teach this subject, a student also must gain admission to the Teacher Education Program and meet all the requirements for secondary teaching licensure (p. 151). For more information, see the Teaching and Learning Department webpage (<https://www.umt.edu/education/departments/currinst/default.php>).

## Art B.F.A.

## General Degree Requirements

To earn a baccalaureate degree, all students must complete successfully, in addition to any other requirements, the University of Montana General Education Requirements. Please refer to the General Education Requirements page (p. 39) for more information.

Additional requirements for graduation can be found on the Degree/Certificate Requirements for Graduation page (p. 36).

Unless otherwise noted in individual program requirements, a minimum grade point average of 2.00 in all work attempted at the University of Montana-Missoula is required for graduation. Please see the Academic Policies and Procedures page (p. 25) for information on how your GPA is calculated.

Courses taken to satisfy the requirements of a major, minor, or certificate program must be completed with a grade of C- or better unless a higher grade is noted in the program requirements.

## Bachelor of Fine Arts - Art

- This major requires a minimum grade of C in all required courses.

## Course Requirements

| Code                                                                                                     | Title                                      | Hours     |
|----------------------------------------------------------------------------------------------------------|--------------------------------------------|-----------|
| <b>Foundation Level Requirements</b>                                                                     |                                            |           |
| Complete all of the following courses:                                                                   |                                            |           |
| ARTH 150H                                                                                                | Introduction to Art History                | 3         |
| ARTZ 105A                                                                                                | Visual Language - Drawing                  | 3         |
| ARTZ 108A                                                                                                | Visual Language - 3-D Foundations          | 3         |
| Complete one of the following courses:                                                                   |                                            | 3         |
| GDSN 149A                                                                                                | Digital Imaging I                          |           |
| MART 101L                                                                                                | Intro to Media Arts                        |           |
| MART 112A                                                                                                | Introduction to Film Editing               |           |
| MART 120                                                                                                 | Creative Coding I                          |           |
| <b>Intermediate Level Requirements</b>                                                                   |                                            |           |
| Complete all of the following courses:                                                                   |                                            |           |
| ARTH 201H                                                                                                | Art of World Civilization: 1400 to Present | 3         |
| ARTH 250L                                                                                                | Introduction to Art Criticism              | 3         |
| Complete 18 credits of the following courses:                                                            |                                            | 18        |
| Art (ARTZ) and Graphic Design (GDSN) courses at the 200 level                                            |                                            |           |
| Media Arts (MART) courses at the 200 or 300 level                                                        |                                            |           |
| <b>Upper-Division Level Requirements</b>                                                                 |                                            |           |
| Upper-Division Studio Credits Outside of Area of Focus:                                                  |                                            |           |
| Complete 15 credits in Art (ARTZ), Graphic Design (GDSN), and Media Arts (MART) at the 300 and 400 level |                                            | 15        |
| Upper-Division Studio Credits in Area of Focus: <sup>1</sup>                                             |                                            |           |
| Complete 12 credits of the courses in Art (ARTZ) at the 300 and 400 level                                |                                            | 12        |
| Upper-Division Art History and Criticism Requirements:                                                   |                                            |           |
| ARTH 350                                                                                                 | Contemporary Art and Art Criticism         | 3         |
| 3 credits in Art History (ARTH) at the 300- and 400-level.                                               |                                            | 3         |
| <b>Senior Thesis Capstone</b>                                                                            |                                            |           |
| Complete all of the following courses:                                                                   |                                            |           |
| ARTZ 494                                                                                                 | Seminar- Professional Practices            | 3         |
| ARTZ 499                                                                                                 | Senior Thesis/Capstone                     | 3         |
| <b>Total Hours</b>                                                                                       |                                            | <b>75</b> |

<sup>1</sup> These courses should be in the same discipline to demonstrate an area of focus. Substitutions for courses in related disciplines outside ARTZ,

MART, or GDSN can be approved by supervising faculty. Consult with your advisor before selecting courses.

Four Year Plan

| Course                                                       | Title                                                     | Hours     |
|--------------------------------------------------------------|-----------------------------------------------------------|-----------|
| <b>Freshman</b>                                              |                                                           |           |
| <b>Autumn</b>                                                |                                                           |           |
| ARTZ 105A                                                    | Visual Language - Drawing                                 | 3         |
| ARTH 150H                                                    | Introduction to Art History                               | 3         |
| WRIT 101                                                     | College Writing I                                         | 4         |
| Math Course                                                  |                                                           | 3         |
| General Education Requirements                               |                                                           | 3         |
| <b>Hours</b>                                                 |                                                           | <b>16</b> |
| <b>Spring</b>                                                |                                                           |           |
| ARTZ 108A<br>or MART 120                                     | Visual Language - 3-D Foundations<br>or Creative Coding I | 3         |
| MART 112A                                                    | Introduction to Film Editing                              | 3         |
| GDSN 149A                                                    | Digital Imaging I                                         | 3         |
| MART 101L                                                    | Intro to Media Arts                                       | 3         |
| General Education Requirements                               |                                                           | 3         |
| <b>Hours</b>                                                 |                                                           | <b>15</b> |
| <b>Sophomore</b>                                             |                                                           |           |
| <b>Autumn</b>                                                |                                                           |           |
| ARTH 201H                                                    | Art of World Civilization: 1400 to Present                | 3         |
| Intermediate Studio Requirements                             |                                                           | 6         |
| General Education Requirements                               |                                                           | 3         |
| Foreign Language                                             |                                                           | 4         |
| <b>Hours</b>                                                 |                                                           | <b>16</b> |
| <b>Spring</b>                                                |                                                           |           |
| Foreign Language                                             |                                                           | 4         |
| Intermediate Studio Requirements                             |                                                           | 6         |
| General Education Requirements                               |                                                           | 6         |
| <b>Hours</b>                                                 |                                                           | <b>16</b> |
| <b>Junior</b>                                                |                                                           |           |
| <b>Autumn</b>                                                |                                                           |           |
| ARTH 250L                                                    | Introduction to Art Criticism                             | 3         |
| Intermediate Studio Requirement                              |                                                           | 3         |
| Upper Division Studio Courses (in area of Concentration)     |                                                           | 3         |
| Upper Division Studio Course (outside area of Concentration) |                                                           | 3         |
| Elective                                                     |                                                           | 3         |
| <b>Hours</b>                                                 |                                                           | <b>15</b> |
| <b>Spring</b>                                                |                                                           |           |
| ARTH 350                                                     | Contemporary Art and Art Criticism                        | 3         |
| Upper Division Art History (ARTH)                            |                                                           | 3         |
| Upper Division Studio Courses (in area of Concentration)     |                                                           | 3         |
| Upper Division Studio Course (outside area of Concentration) |                                                           | 3         |
| Elective                                                     |                                                           | 3         |
| <b>Hours</b>                                                 |                                                           | <b>15</b> |
| <b>Senior</b>                                                |                                                           |           |
| <b>Autumn</b>                                                |                                                           |           |
| ARTZ 494                                                     | Seminar- Professional Practices                           | 3         |
| Upper Division Studio Courses (in area of Concentration)     |                                                           | 3         |
| Upper Division Studio Course (outside area of Concentration) |                                                           | 3         |
| Elective                                                     |                                                           | 6         |
| <b>Hours</b>                                                 |                                                           | <b>15</b> |
| <b>Spring</b>                                                |                                                           |           |
| ARTZ 499                                                     | Senior Thesis/Capstone                                    | 3         |
| Upper Division Studio Courses (in area of Concentration)     |                                                           | 3         |
| Upper Division Studio Course (outside area of Concentration) |                                                           | 3         |

|             |     |
|-------------|-----|
| Elective    | 6   |
| Hours       | 15  |
| Total Hours | 123 |

Last Updated Autumn 2024

Art B.F.A. - Art Education  
General Degree Requirements

To earn a baccalaureate degree, all students must complete successfully, in addition to any other requirements, the University of Montana General Education Requirements. Please refer to the General Education Requirements page (p. 39) for more information.

Additional requirements for graduation can be found on the Degree/ Certificate Requirements for Graduation page (p. 36).

Unless otherwise noted in individual program requirements, a minimum grade point average of 2.00 in all work attempted at the University of Montana-Missoula is required for graduation. Please see the Academic Policies and Procedures page (p. 25) for information on how your GPA is calculated.

Courses taken to satisfy the requirements of a major, minor, or certificate program must be completed with a grade of C- or better unless a higher grade is noted in the program requirements.

Bachelor of Fine Arts - Art; Art Education  
Concentration

- This major requires a minimum grade of C in all major courses.
- Art Education licensure is earned by taking classes in both the School of Visual and Media Arts and the Phyllis J. Washington College of Education (<https://www.umt.edu/education/>). Students complete their BA or BFA in Art in conjunction with courses required from the College of Education.
- Montana Teaching Certification in Art K-12 requires a BA or BFA in Art with a concentration in Art Education, which extends beyond the 120-credit limit, or an MA in Curriculum and Instruction with the required undergraduate credits for teacher certification in art. In addition, students are required to take 35 credits of EDU classes and a Native American Studies Course.
- Those interested in teaching in K-12 schools must complete the teaching concentration of a major in a teaching content area plus the Teacher Education Program through the Department of Teaching and Learning. Additional teaching areas can be added through completion of the teaching concentration of a major or a teaching/education minor in that content area.
- Secondary Education Licensure Program (<https://www.umt.edu/education/departments/teaching-and-learning/tep/default.php>)
- To complete this Art Education concentration, you need to contact the Teaching and Learning Department (<https://www.umt.edu/education/departments/teaching-and-learning/default.php>).

Course Requirements

| Code                                   | Title                       | Hours |
|----------------------------------------|-----------------------------|-------|
| <b>Foundation Level Requirements</b>   |                             |       |
| Complete all of the following courses: |                             |       |
| ARTH 150H                              | Introduction to Art History | 3     |

|                                                                                                          |                                            |           |
|----------------------------------------------------------------------------------------------------------|--------------------------------------------|-----------|
| ARTZ 105A                                                                                                | Visual Language - Drawing                  | 3         |
| ARTZ 108A                                                                                                | Visual Language - 3-D Foundations          | 3         |
| Complete one of the following courses:                                                                   |                                            | 3         |
| GDSN 149A                                                                                                | Digital Imaging I                          |           |
| MART 101L                                                                                                | Intro to Media Arts                        |           |
| MART 112A                                                                                                | Introduction to Film Editing               |           |
| MART 120                                                                                                 | Creative Coding I                          |           |
| <b>Intermediate Level Requirements</b>                                                                   |                                            |           |
| Complete all of the following courses:                                                                   |                                            |           |
| ARTH 201H                                                                                                | Art of World Civilization: 1400 to Present | 3         |
| ARTH 250L                                                                                                | Introduction to Art Criticism              | 3         |
| Complete 18 credits of the following courses:                                                            |                                            | 18        |
| Art (ARTZ) and Graphic Design (GDSN) courses at the 200 level                                            |                                            |           |
| Media Arts (MART) courses at the 200 or 300 level                                                        |                                            |           |
| <b>Upper-Division Level Requirements</b>                                                                 |                                            |           |
| Upper-Division Studio Credits Outside of Area of Concentration:                                          |                                            |           |
| Complete 15 credits in Art (ARTZ), Graphic Design (GDSN), and Media Arts (MART) at the 300 and 400 level |                                            | 15        |
| Upper-Division Studio Credits in Area of Concentration: <sup>1</sup>                                     |                                            |           |
| Complete 12 credits of the courses in Art (ARTZ) at the 300 and 400 level                                |                                            | 12        |
| Upper-Division Art History and Criticism Requirements:                                                   |                                            |           |
| ARTH 350                                                                                                 | Contemporary Art and Art Criticism         | 3         |
| 3 credits in Art History (ARTH) at the 300- and 400-level.                                               |                                            | 3         |
| <b>Senior Thesis Capstone</b>                                                                            |                                            |           |
| Complete all of the following courses:                                                                   |                                            |           |
| ARTZ 494                                                                                                 | Seminar- Professional Practices            | 3         |
| ARTZ 499                                                                                                 | Senior Thesis/Capstone                     | 3         |
| <b>Art Education Requirements</b>                                                                        |                                            |           |
| ARTZ 402                                                                                                 | Teaching Art I - K-12                      | 3         |
| ARTZ 403                                                                                                 | Teaching Art II - K-12                     | 3         |
| <b>Total Hours</b>                                                                                       |                                            | <b>81</b> |

<sup>1</sup> These courses should be in the same discipline to demonstrate an area of concentration. Substitutions for courses in related disciplines outside ARTZ, MART, or GDSN can be approved by supervising faculty. Consult with your advisor before selecting courses.

## Secondary Teaching Licensure

For endorsement to teach this subject, a student also must gain admission to the Teacher Education Program and meet all the requirements for secondary teaching licensure (p. 151). For more information, see the Teaching and Learning Department webpage (<https://www.umt.edu/education/departments/currinst/default.php>).

## Art History and Criticism Minor

### General Degree Requirements

To earn a baccalaureate degree, all students must complete successfully, in addition to any other requirements, the University of Montana General Education Requirements. Please refer to the General Education Requirements page (p. 39) for more information.

Additional requirements for graduation can be found on the Degree/Certificate Requirements for Graduation page (p. 36).

Unless otherwise noted in individual program requirements, a minimum grade point average of 2.00 in all work attempted at the University of Montana-Missoula is required for graduation. Please see the Academic Policies and Procedures page (p. 25) for information on how your GPA is calculated.

Courses taken to satisfy the requirements of a major, minor, or certificate program must be completed with a grade of C- or better unless a higher grade is noted in the program requirements.

## Minor - Art History and Criticism

- This is a minor in Art History for those not majoring in Art.
- This minor requires a minimum grade of C in all required courses.

### Course Requirements

| Code                                             | Title                                      | Hours     |
|--------------------------------------------------|--------------------------------------------|-----------|
| <b>Studio Art Fundamentals - Visual Language</b> |                                            |           |
| Complete all of the following courses:           |                                            |           |
| ARTZ 105A                                        | Visual Language - Drawing                  | 3         |
| ARTZ 108A                                        | Visual Language - 3-D Foundations          | 3         |
| <b>Beginning Art History</b>                     |                                            |           |
| Complete all of the following courses:           |                                            |           |
| ARTH 150H                                        | Introduction to Art History                | 3         |
| ARTH 201H                                        | Art of World Civilization: 1400 to Present | 3         |
| <b>Beginning Art Criticism</b>                   |                                            |           |
| Complete the following course:                   |                                            |           |
| ARTH 250L                                        | Introduction to Art Criticism              | 3         |
| <b>Upper-Division Art History and Criticism</b>  |                                            |           |
| Complete 9 credits of the following courses:     |                                            | 9         |
| ARTH 333H                                        | Architectural History I                    |           |
| ARTH 350                                         | Contemporary Art and Art Criticism         |           |
| ARTH 391                                         | Special Topics                             |           |
| ARTH 440                                         | 20th Century Art                           |           |
| ARTH 458                                         | Advanced Research in Art History           |           |
| ARTH 491                                         | Special Topics                             |           |
| ARTH 494                                         | Seminar                                    |           |
| ARTH 498                                         | Internship                                 |           |
| <b>Total Hours</b>                               |                                            | <b>24</b> |

## Art Studio Minor

### General Degree Requirements

To earn a baccalaureate degree, all students must complete successfully, in addition to any other requirements, the University of Montana General Education Requirements. Please refer to the General Education Requirements page (p. 39) for more information.

Additional requirements for graduation can be found on the Degree/Certificate Requirements for Graduation page (p. 36).

Unless otherwise noted in individual program requirements, a minimum grade point average of 2.00 in all work attempted at the University of Montana-Missoula is required for graduation. Please see the Academic

Policies and Procedures page (p. 25) for information on how your GPA is calculated.

Courses taken to satisfy the requirements of a major, minor, or certificate program must be completed with a grade of C- or better unless a higher grade is noted in the program requirements.

## Minor - Art Studio

- This minor requires a minimum grade of C in all required courses.

### Course Requirements

| Code                                             | Title                                      | Hours     |
|--------------------------------------------------|--------------------------------------------|-----------|
| <b>Studio Art Fundamentals - Visual Language</b> |                                            |           |
| Complete all of the following courses:           |                                            |           |
| ARTZ 105A                                        | Visual Language - Drawing                  | 3         |
| GDSN 149A                                        | Digital Imaging I                          | 3         |
| ARTZ 108A                                        | Visual Language - 3-D Foundations          | 3         |
| <b>Beginning Art History</b>                     |                                            |           |
| Complete all of the following courses:           |                                            |           |
| ARTH 150H                                        | Introduction to Art History                | 3         |
| ARTH 201H                                        | Art of World Civilization: 1400 to Present | 3         |
| <b>Studio I Courses</b>                          |                                            |           |
| Complete three of the following courses:         |                                            | 9         |
| ARTZ 211A                                        | Drawing I                                  |           |
| ARTZ 221A                                        | Painting I                                 |           |
| ARTZ 231A                                        | Ceramics I                                 |           |
| ARTZ 251A                                        | Sculpture I                                |           |
| ARTZ 271A                                        | Printmaking I                              |           |
| ARTZ 284A                                        | Photography I: Technologies and Processes  |           |
| <b>Upper-Division Studio Course</b>              |                                            |           |
| Complete 3 credits of the following courses:     |                                            | 3         |
| ARTZ 311                                         | Drawing II                                 |           |
| ARTZ 321                                         | Painting II                                |           |
| ARTZ 331                                         | Ceramics II                                |           |
| ARTZ 335                                         | Ceramics Surfaces                          |           |
| ARTZ 351                                         | Sculpture II                               |           |
| ARTZ 371                                         | Printmaking II                             |           |
| ARTZ 388                                         | Alternative Process Photography            |           |
| ARTZ 391                                         | Special Topics                             |           |
| ARTZ 398                                         | Internship                                 |           |
| ARTZ 430                                         | Advanced Research- Ceramics                |           |
| ARTZ 492                                         | Independent Study                          |           |
| ARTZ 498                                         | Internship                                 |           |
| <b>Total Hours</b>                               |                                            | <b>27</b> |

## Media Arts B.A.

The School of Visual and Media Arts continues to lead the way in creating innovative educational experiences for students by offering the most comprehensive fully online Bachelor of Arts degree at the University of Montana. This degree enables students to maximize their creative potential through the study and artistic application of emerging digital technologies. It provides learning opportunities in interactive media, web

and internet technologies, film editing, gaming, and a variety of digital design applications including sound, still image, motion, and animation.

## General Degree Requirements

To earn a baccalaureate degree, all students must complete successfully, in addition to any other requirements, the University of Montana General Education Requirements. Please refer to the General Education Requirements page (p. 39) for more information.

Additional requirements for graduation can be found on the Degree/ Certificate Requirements for Graduation page (p. 36).

Unless otherwise noted in individual program requirements, a minimum grade point average of 2.00 in all work attempted at the University of Montana-Missoula is required for graduation. Please see the Academic Policies and Procedures page (p. 25) for information on how your GPA is calculated.

Courses taken to satisfy the requirements of a major, minor, or certificate program must be completed with a grade of C- or better unless a higher grade is noted in the program requirements.

## Online Program Option

This program may be completed in an online format (<https://catalog.umont.edu/online-programs/definitions/>). Students interested in pursuing an online degree or certificate program are strongly encouraged to contact the offering department to discuss specific program and course modalities (<https://catalog.umont.edu/online-programs/definitions/>) and create a plan of study with an academic advisor. The course requirements listed below may not be consistently offered via online delivery.

## Bachelor of Arts - Media Arts

- This major requires a minimum grade of C in all required courses.

### Course Requirements

| Code                                                                                                                          | Title                                  | Hours |
|-------------------------------------------------------------------------------------------------------------------------------|----------------------------------------|-------|
| <b>Foundation Level Requirements</b>                                                                                          |                                        |       |
| Complete all of the following courses:                                                                                        |                                        |       |
| GDSN 149A                                                                                                                     | Digital Imaging I                      | 3     |
| MART 101L                                                                                                                     | Intro to Media Arts                    | 3     |
| MART 112A                                                                                                                     | Introduction to Film Editing           | 3     |
| MART 120                                                                                                                      | Creative Coding I                      | 3     |
| <b>Intermediate Level Requirements</b>                                                                                        |                                        |       |
| Complete all of the following courses:                                                                                        |                                        |       |
| MART 201H                                                                                                                     | History of Digital Arts & Culture      | 3     |
| MART 245                                                                                                                      | Sound Production & Design Fundamentals | 3     |
| MART 255                                                                                                                      | Photoshop: Art and Design              | 3     |
| MART 256                                                                                                                      | Illustrator: Vector and Layout Design  | 3     |
| 9 credits of courses at the 200-level or above in Art History (ARTH), Art (ARTZ), Graphic Design (GDSN), or Media Arts (MART) |                                        | 9     |
| <b>Upper-Division Level Requirements</b>                                                                                      |                                        |       |
| Complete all of the following courses:                                                                                        |                                        |       |
| MART 302                                                                                                                      | Intro to Motion Design                 | 3     |
| MART 341                                                                                                                      | Introduction to Web Design             | 3     |
| MART 342                                                                                                                      | Art & Science of Interactive Games     | 3     |

|                    |                                |           |
|--------------------|--------------------------------|-----------|
| MART 441           | Browser-based Games            | 3         |
| MART 450           | Topics in Film & Media Studies | 3         |
| <b>Total Hours</b> |                                | <b>48</b> |

## Four Year Plan

| Course                                                 | Title                                  | Hours     |
|--------------------------------------------------------|----------------------------------------|-----------|
| <b>Freshman</b>                                        |                                        |           |
| <b>Autumn</b>                                          |                                        |           |
| ARTZ 105A                                              | Visual Language - Drawing              | 3         |
| MART 101L                                              | Intro to Media Arts                    | 3         |
| WRIT 101                                               | College Writing I                      | 4         |
| Math Course                                            |                                        | 3         |
| General Education Requirements                         |                                        | 3         |
| <b>Hours</b>                                           |                                        | <b>16</b> |
| <b>Spring</b>                                          |                                        |           |
| MART 120                                               | Creative Coding I                      | 3         |
| MART 112A                                              | Introduction to Film Editing           | 3         |
| GDSN 149A                                              | Digital Imaging I                      | 3         |
| ARTH 150H                                              | Introduction to Art History            | 3         |
| General Education Requirements                         |                                        | 3         |
| <b>Hours</b>                                           |                                        | <b>15</b> |
| <b>Sophomore</b>                                       |                                        |           |
| <b>Autumn</b>                                          |                                        |           |
| MART 201H                                              | History of Digital Arts & Culture      | 3         |
| MART 245                                               | Sound Production & Design Fundamentals | 3         |
| MART 340                                               | Principles of Interactive Media        | 3         |
| General Education Requirements                         |                                        | 6         |
| <b>Hours</b>                                           |                                        | <b>15</b> |
| <b>Spring</b>                                          |                                        |           |
| MART 255                                               | Photoshop: Art and Design              | 3         |
| MART 256                                               | Illustrator: Vector and Layout Design  | 3         |
| School of Visual and Media Arts Electives <sup>1</sup> |                                        | 3         |
| General Education Requirements                         |                                        | 6         |
| <b>Hours</b>                                           |                                        | <b>15</b> |
| <b>Junior</b>                                          |                                        |           |
| <b>Autumn</b>                                          |                                        |           |
| MART 302                                               | Intro to Motion Design                 | 3         |
| MART 341                                               | Introduction to Web Design             | 3         |
| General Education Requirements                         |                                        | 6         |
| Elective                                               |                                        | 3         |
| <b>Hours</b>                                           |                                        | <b>15</b> |
| <b>Spring</b>                                          |                                        |           |
| MART 342                                               | Art & Science of Interactive Games     | 3         |
| MART 441                                               | Web Technologies                       | 3         |
| School of Visual and Media Arts Electives <sup>1</sup> |                                        | 3         |
| General Education Requirements                         |                                        | 6         |
| Elective                                               |                                        | 3         |
| <b>Hours</b>                                           |                                        | <b>18</b> |
| <b>Senior</b>                                          |                                        |           |
| <b>Autumn</b>                                          |                                        |           |
| MART 450                                               | Topics in Film & Media Studies         | 3         |
| School of Visual and Media Arts Electives <sup>1</sup> |                                        | 3         |
| General Education Requirements                         |                                        | 3         |
| Elective                                               |                                        | 6         |
| <b>Hours</b>                                           |                                        | <b>15</b> |
| <b>Spring</b>                                          |                                        |           |
| Elective                                               |                                        | 12        |

|                                                        |            |
|--------------------------------------------------------|------------|
| School of Visual and Media Arts Electives <sup>1</sup> | 3          |
| <b>Hours</b>                                           | <b>15</b>  |
| <b>Total Hours</b>                                     | <b>124</b> |

*Last updated Autumn 2024*

<sup>1</sup> School of Visual and Media Arts Electives: Complete 9 credits of courses at the 200-level or above in the following areas: Art History, Art, Graphic Design, and Media Arts. These courses should be chosen in consultation with your advisor

## Media Arts B.F.A

### General Degree Requirements

To earn a baccalaureate degree, all students must complete successfully, in addition to any other requirements, the University of Montana General Education Requirements. Please refer to the General Education Requirements page (p. 39) for more information.

Additional requirements for graduation can be found on the Degree/Certificate Requirements for Graduation page (p. 36).

Unless otherwise noted in individual program requirements, a minimum grade point average of 2.00 in all work attempted at the University of Montana-Missoula is required for graduation. Please see the Academic Policies and Procedures page (p. 25) for information on how your GPA is calculated.

Courses taken to satisfy the requirements of a major, minor, or certificate program must be completed with a grade of C- or better unless a higher grade is noted in the program requirements.

## Bachelor of Fine Arts - Media Arts

- This major requires a minimum grade of C in all required courses.

### Course Requirements

| Code                                                                                                                  | Title                             | Hours |
|-----------------------------------------------------------------------------------------------------------------------|-----------------------------------|-------|
| <b>Foundation Level Requirements</b>                                                                                  |                                   |       |
| Complete all of the following courses:                                                                                |                                   |       |
| MART 101L                                                                                                             | Intro to Media Arts               | 3     |
| MART 112A                                                                                                             | Introduction to Film Editing      | 3     |
| Complete two of the following courses:                                                                                |                                   | 6     |
| ARTH 150H                                                                                                             | Introduction to Art History       |       |
| ARTZ 105A                                                                                                             | Visual Language - Drawing         |       |
| ARTZ 108A                                                                                                             | Visual Language - 3-D Foundations |       |
| GDSN 149A                                                                                                             | Digital Imaging I                 |       |
| MART 120                                                                                                              | Creative Coding I                 |       |
| <b>Intermediate Level Requirements</b>                                                                                |                                   |       |
| Complete the following course:                                                                                        |                                   |       |
| MART 210                                                                                                              | Creation of Media Story           | 3     |
| Complete two of the following courses:                                                                                |                                   | 6     |
| FILM 300                                                                                                              | History of Film                   |       |
| MART 201H                                                                                                             | History of Digital Arts & Culture |       |
| MART 300                                                                                                              | Visions of Film                   |       |
| Complete 6 credits in Art (ARTZ), Film (FILM), Graphic Design (GDSN), and Media Arts (MART) at the 100 and 200 levels |                                   | 6     |



Complete 9 credits in Art (ARTZ) and Graphic Design (GDSN) at the 200 level and in Film (FILM) and Media Arts (MART) at the 200 or 300 levels

Upper-Division Level Requirements

Upper-Division Media Credits Outside Area of Focus:

Complete 15 credits in Art (ARTZ), Film (FILM), Graphic Design (GDSN), Media Arts (MART), Creative Writing (CRWR), Dance (DANC), Journalism (JRNL), Music (MUSI), Music Technology (MUST), and Theatre (THTR) at the 300 and 400 level

Upper-Division Media Credits in Area of Focus:

Complete 12 credits in Media Arts (MART), Film (FILM), and Graphic Design (GDSN) at the 300 and 400 levels <sup>1</sup>

Upper-Division History and Criticism Requirement

Complete all of the following courses:

MART 450 Topics in Film & Media Studies 3  
3 additional credits in Media History at the 300 or 400 level <sup>2</sup> 3

Senior Thesis Capstone Requirement

Complete all of the following courses:

MART 480 Professional Portfolio 3  
MART 499 Senior Project 3

Total Hours 75

<sup>1</sup> These courses should be in the same discipline to demonstrate an area of focus. Substitutions for courses in related disciplines outside of ARTZ, MART, or GDSN can be approved by supervising faculty. Consult with your advisor before selecting courses.

<sup>2</sup> Consult with your advisor about which courses may fulfill this requirement.

Digital Arts & Technology

| Course                        | Title                               | Hours |
|-------------------------------|-------------------------------------|-------|
| Freshman                      |                                     |       |
| Autumn                        |                                     |       |
| ARTZ 105A                     | Visual Language - Drawing           | 3     |
| MART 101L                     | Intro to Media Arts                 | 3     |
| WRIT 101                      | College Writing I                   | 4     |
| Math Course                   |                                     | 3     |
| General Education Requirement |                                     | 3     |
| Hours                         |                                     | 16    |
| Spring                        |                                     |       |
| MART 120                      | Creative Coding I                   | 3     |
| MART 112A                     | Introduction to Film Editing        | 3     |
| GDSN 149A                     | Digital Imaging I                   | 3     |
| ARTH 150H                     | Introduction to Art History         | 3     |
| General Education Requirement |                                     | 3     |
| Hours                         |                                     | 15    |
| Sophomore                     |                                     |       |
| Autumn                        |                                     |       |
| MART 201H                     | History of Digital Arts & Culture   | 3     |
| MART 210                      | Creation of Media Story             | 3     |
| MART 220                      | Creative Coding II                  | 3     |
| MART 255                      | Photoshop: Art and Design           | 3     |
| General Education Requirement |                                     | 3     |
| Hours                         |                                     | 15    |
| Spring                        |                                     |       |
| MAR 251                       | Digital Video Production Technology | 3     |
| MART 302                      | Intro to Motion Design              | 3     |

|                               |                                         |     |
|-------------------------------|-----------------------------------------|-----|
| MART 325                      | Introduction to Animation               | 3   |
| General Education Requirement |                                         | 6   |
| Hours                         |                                         | 15  |
| Junior                        |                                         |     |
| Autumn                        |                                         |     |
| MART 256                      | Illustrator: Vector and Layout Design   | 3   |
| MART 305                      | 3D Animation I                          | 3   |
| MART 330                      | Principles of Sound Design              | 3   |
| General Education Requirement |                                         | 3   |
| Hours                         |                                         | 12  |
| Spring                        |                                         |     |
| MART 340                      | Principles of Interactive Media         | 3   |
| MART 341                      | Introduction to Web Design              | 3   |
| MART 440                      | Technology and Interactive Media Design | 3   |
| General Education Requirement |                                         | 6   |
| Hours                         |                                         | 15  |
| Senior                        |                                         |     |
| Autumn                        |                                         |     |
| MART 416                      | Production Studio I                     | 3   |
| MART 441                      | Web Technologies                        | 3   |
| MART 450                      | Topics in Film & Media Studies          | 3   |
| Hours                         |                                         | 9   |
| Spring                        |                                         |     |
| MART 445                      | Sound for Digital Media                 | 3   |
| MART 457                      | Production Studio II                    | 3   |
| MART 499                      | Senior Project                          | 3   |
| Hours                         |                                         | 9   |
| Total Hours                   |                                         | 106 |

Last updated Autumn 2024

Digital Filmmaking

| Course                        | Title                                  | Hours |
|-------------------------------|----------------------------------------|-------|
| Freshman                      |                                        |       |
| Autumn                        |                                        |       |
| MART 101L                     | Intro to Media Arts                    | 3     |
| GDSN 149A                     | Digital Imaging I                      | 3     |
| WRIT 101                      | College Writing I (or math course)     | 4     |
| General Education Requirement |                                        | 6     |
| Hours                         |                                        | 16    |
| Spring                        |                                        |       |
| ARTZ 105A                     | Visual Language - Drawing              | 3     |
| MART 112A                     | Introduction to Film Editing           | 3     |
| WRIT 101                      | College Writing I (or math course)     | 4     |
| General Education Requirement |                                        | 6     |
| Hours                         |                                        | 16    |
| Sophomore                     |                                        |       |
| Autumn                        |                                        |       |
| MART 120                      | Creative Coding I                      | 3     |
| ARTH 150H                     | Introduction to Art History            | 3     |
| MAR 251                       | Digital Video Production Technology    | 3     |
| MART 210                      | Creation of Media Story                | 3     |
| General Education Requirement |                                        | 3     |
| Hours                         |                                        | 15    |
| Spring                        |                                        |       |
| MAR 252                       | Screenwriting                          | 3     |
| MART 300                      | Visions of Film                        | 3     |
| MART 245                      | Sound Production & Design Fundamentals | 3     |
| MART 325                      | Introduction to Animation              | 3     |
| 200 level Elective            |                                        | 3     |
| Hours                         |                                        | 15    |

**Junior****Autumn**

|                               |                                 |           |
|-------------------------------|---------------------------------|-----------|
| MART 327                      | Intro to Cinematography         | 3         |
| MART 336                      | Directing the Fiction Film      | 3         |
| 200 level Elective            |                                 | 3         |
| General Education Requirement |                                 | 3         |
| MART 340                      | Principles of Interactive Media | 3         |
| <b>Hours</b>                  |                                 | <b>15</b> |

**Spring**

|                               |                   |           |
|-------------------------------|-------------------|-----------|
| MART 345                      | Sound for Film    | 3         |
| MART 436                      | Producing         | 3         |
| MAR 442                       | Experimental Film | 3         |
| 200 level Elective            |                   | 3         |
| General Education Requirement |                   | 3         |
| <b>Hours</b>                  |                   | <b>15</b> |

**Senior****Autumn**

|                               |                                |           |
|-------------------------------|--------------------------------|-----------|
| MART 450                      | Topics in Film & Media Studies | 3         |
| MART 499                      | Senior Project                 | 3         |
| 200 level Elective            |                                | 3         |
| General Education Requirement |                                | 6         |
| <b>Hours</b>                  |                                | <b>15</b> |

**Spring**

|                               |                             |            |
|-------------------------------|-----------------------------|------------|
| MART 455                      | Visions of Documentary Film | 3          |
| MART 499                      | Senior Project              | 3          |
| General Education Requirement |                             | 3          |
| Elective                      |                             | 6          |
| <b>Hours</b>                  |                             | <b>15</b>  |
| <b>Total Hours</b>            |                             | <b>122</b> |

*Last updated Autumn 2024*

# Game Design & Interactive Media B.F.A

## General Degree Requirements

To earn a baccalaureate degree, all students must complete successfully, in addition to any other requirements, the University of Montana General Education Requirements. Please refer to the General Education Requirements page (p. 39) for more information.

Additional requirements for graduation can be found on the Degree/Certificate Requirements for Graduation page (p. 36).

Unless otherwise noted in individual program requirements, a minimum grade point average of 2.00 in all work attempted at the University of Montana-Missoula is required for graduation. Please see the Academic Policies and Procedures page (p. 25) for information on how your GPA is calculated.

Courses taken to satisfy the requirements of a major, minor, or certificate program must be completed with a grade of C- or better unless a higher grade is noted in the program requirements.

## BACHELOR OF FINE ARTS - GAME DESIGN AND INTERACTIVE MEDIA

- This major requires a minimum grade of C in all major courses.
- The Game Design and Interactive Media (GDIM) curriculum provides a grounding in the design, story-telling, illustration, and 3D animation

as paired with creative coding and in-depth game development coursework. Students learn to conceptualize, iterate and produce games that fit their artistic visions as well as their career goals. GDIM is preparation for the professional fields of Mobile App design, Game development, and Interactive Art and Media.

- The Shared Foundation sequence must be completed or be in the process of completion before acceptance into the B.F.A program.

| Code | Title | Hours |
|------|-------|-------|
|------|-------|-------|

**Shared Foundation Requirements**

|                                        |                              |   |
|----------------------------------------|------------------------------|---|
| Complete all of the following courses: |                              |   |
| ARTH 150H                              | Introduction to Art History  | 3 |
| ARTZ 105A                              | Visual Language - Drawing    | 3 |
| GDSN 149A                              | Digital Imaging I            | 3 |
| MART 101L                              | Intro to Media Arts          | 3 |
| MART 112A                              | Introduction to Film Editing | 3 |
| MART 120                               | Creative Coding I            | 3 |

**General Core Courses**

|                                        |                                        |   |
|----------------------------------------|----------------------------------------|---|
| Complete all of the following courses: |                                        |   |
| MART 210                               | Creation of Media Story                | 3 |
| MART 245                               | Sound Production & Design Fundamentals | 3 |
| MART 450                               | Topics in Film & Media Studies         | 3 |
| MART 499                               | Senior Project                         | 3 |

**Game Design and Interactive Media Core**

|                                               |                                       |    |
|-----------------------------------------------|---------------------------------------|----|
| Complete 36 credits of the following courses: |                                       | 36 |
| MART 220                                      | Creative Coding II                    |    |
| MART 302                                      | Intro to Motion Design                |    |
| MART 305                                      | 3D Animation I                        |    |
| MART 340                                      | Principles of Interactive Media       |    |
| MART 341                                      | Introduction to Web Design            |    |
| MART 342                                      | Art & Science of Interactive Games    |    |
| MART 360                                      | Game Ethics                           |    |
| MART 361                                      | Serious Games                         |    |
| MART 391                                      | Special Topics                        |    |
| MART 441                                      | Browser-based Games                   |    |
| MART 460                                      | Fundamentals of the Unity Game Engine |    |
| MART 461                                      | Multiplayer Games                     |    |
| MART 462                                      | Mobile Game Programming               |    |
| MART 491                                      | Special Topics                        |    |
| MART 499                                      | Senior Project                        |    |

**Electives**

|                                              |                                                   |   |
|----------------------------------------------|---------------------------------------------------|---|
| Complete 9 credits of the following courses: |                                                   | 9 |
| ARTZ 214                                     | Illustration                                      |   |
| BMGT 101S                                    | Introduction to Entertainment Management          |   |
| BMGT 401                                     | Entertainment and Sports Event Management         |   |
| BMGT 402                                     | Principles of Entertainment & Sport Business      |   |
| BMGT 403                                     | Advanced Topics in Entertainment & Sport Business |   |
| ITS 279                                      | Cloud Systems                                     |   |
| JRNL 342                                     | Multimedia Sports Announcing and Writing          |   |
| MAR 252                                      | Screenwriting                                     |   |

|             |                         |    |
|-------------|-------------------------|----|
| MART 100    | Fundamentals of Esports |    |
| Total Hours |                         | 75 |

Four Year Plan

| Course                         | Title                                                | Hours |
|--------------------------------|------------------------------------------------------|-------|
| Freshman                       |                                                      |       |
| Autumn                         |                                                      |       |
| ARTZ 105A                      | Visual Language - Drawing                            | 3     |
| MART 101L                      | Intro to Media Arts                                  | 3     |
| MART 120                       | Creative Coding I                                    | 3     |
| WRIT 101                       | College Writing I                                    | 4     |
| Math Course                    |                                                      | 3     |
| General Education Requirements |                                                      | 3     |
| Hours                          |                                                      | 19    |
| Spring                         |                                                      |       |
| MART 112A                      | Introduction to Film Editing                         | 3     |
| GDSN 149A                      | Digital Imaging I                                    | 3     |
| ARTH 150H                      | Introduction to Art History                          | 3     |
| MART 220                       | Creative Coding II                                   | 3     |
| General Education Requirements |                                                      | 3     |
| Hours                          |                                                      | 15    |
| Sophomore                      |                                                      |       |
| Autumn                         |                                                      |       |
| MART 210                       | Creation of Media Story                              | 3     |
| MART 330                       | Principles of Sound Design                           | 3     |
| ARTZ 214                       | Illustration                                         | 3     |
| MART 460                       | Fundamentals of the Unity Game Engine                | 3     |
| General Education Requirements |                                                      | 3     |
| Hours                          |                                                      | 15    |
| Spring                         |                                                      |       |
| MART 201H                      | History of Digital Arts & Culture                    | 3     |
| MART 305                       | 3D Animation I                                       | 3     |
| MART 302                       | Intro to Motion Design                               | 3     |
| MART 325                       | Introduction to Animation                            | 3     |
| General Education Requirements |                                                      | 3     |
| Hours                          |                                                      | 15    |
| Junior                         |                                                      |       |
| Autumn                         |                                                      |       |
| MAR 252                        | Screenwriting                                        | 3     |
| MART 342                       | Art & Science of Interactive Games                   | 3     |
| MART 360                       | History, Ethics, and Theory of Games (or substitute) | 3     |
| MART 462                       | Mobile Game Programming                              | 3     |
| General Education Requirements |                                                      | 3     |
| Hours                          |                                                      | 15    |
| Spring                         |                                                      |       |
| MART 340                       | Principles of Interactive Media                      | 3     |
| MART 341                       | Introduction to Web Design                           | 3     |
| MART 361                       | Serious Games                                        | 3     |
| MART 440                       | Technology and Interactive Media Design              | 3     |
| General Education Requirements |                                                      | 3     |
| Hours                          |                                                      | 15    |
| Senior                         |                                                      |       |
| Autumn                         |                                                      |       |
| MART 362                       | Game Development                                     | 3     |
| MART 461                       | Web Server Technologies                              | 3     |
| MART 450                       | Topics in Film & Media Studies                       | 3     |
| General Education Requirements |                                                      | 3     |
| Hours                          |                                                      | 12    |
| Spring                         |                                                      |       |
| MART 463                       | Game Studio                                          | 3     |

|                                |     |
|--------------------------------|-----|
| General Education Requirements | 6   |
| Hours                          | 9   |
| Total Hours                    | 115 |

Last updated Autumn 2024

Complete 16 Media Art elective credits of courses at the 200-level or above in the following areas: Art History, Art, Graphic Design and Media Arts. These courses should be chosen in consultation with your advisor.

Sound Design & Media Technology B.F.A

General Degree Requirements

To earn a baccalaureate degree, all students must complete successfully, in addition to any other requirements, the University of Montana General Education Requirements. Please refer to the General Education Requirements page (p. 39) for more information.

Additional requirements for graduation can be found on the Degree/ Certificate Requirements for Graduation page (p. 36).

Unless otherwise noted in individual program requirements, a minimum grade point average of 2.00 in all work attempted at the University of Montana-Missoula is required for graduation. Please see the Academic Policies and Procedures page (p. 25) for information on how your GPA is calculated.

Courses taken to satisfy the requirements of a major, minor, or certificate program must be completed with a grade of C- or better unless a higher grade is noted in the program requirements.

Bachelor of Fine Arts - Sound Design and Media Technology

Course Requirements

| Code                                   | Title                                       | Hours |
|----------------------------------------|---------------------------------------------|-------|
| Audio Core                             |                                             |       |
| Complete all of the following courses: |                                             |       |
| JRNL 140A                              | Intro Radio/Audio Storytelling              | 3     |
| MART 245                               | Sound Production & Design Fundamentals      | 3     |
| MART 345                               | Sound for Film                              | 3     |
| MART 445                               | Sound for Digital Media                     | 3     |
| MUST 210                               | Sequencing, Synthesis, and Sampling         | 2     |
| MUST 310                               | Interactivity and Digital Signal Processing | 2     |
| Complete one of the following courses: |                                             | 3     |
| MART 330                               | Principles of Sound Design                  |       |
| MUSI 304A                              | Sound in the Natural World                  |       |
| THTR 365                               | Theatre Sound I                             |       |
| Creative Process                       |                                             |       |
| Complete the following course:         |                                             |       |
| MART 210                               | Creation of Media Story                     | 3     |
| Creative Coding                        |                                             |       |
| Complete all of the following courses: |                                             |       |
| MART 120                               | Creative Coding I                           | 3     |
| MART 220                               | Creative Coding II                          | 3     |

|                                                                                                                                                                                                   |                                         |           |
|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-----------------------------------------|-----------|
| MART 420                                                                                                                                                                                          | Sonic Programming                       | 3         |
| <b>Interdisciplinary &amp; Interactive Arts</b>                                                                                                                                                   |                                         |           |
| Complete all of the following courses:                                                                                                                                                            |                                         |           |
| MART 340                                                                                                                                                                                          | Principles of Interactive Media         | 3         |
| MART 440                                                                                                                                                                                          | Technology and Interactive Media Design | 3         |
| MUST 410                                                                                                                                                                                          | Designing the Show                      | 2         |
| <b>Music Foundations</b>                                                                                                                                                                          |                                         |           |
| Complete all of the following courses:                                                                                                                                                            |                                         |           |
| MUSI 104A                                                                                                                                                                                         | Music Fundamentals                      | 3         |
| MUSI 135A                                                                                                                                                                                         | Keyboard Skills I                       | 1         |
| <b>Composition</b>                                                                                                                                                                                |                                         |           |
| Complete the following course:                                                                                                                                                                    |                                         |           |
| MUSI 180                                                                                                                                                                                          | Composition I                           | 4         |
| <b>Literature</b>                                                                                                                                                                                 |                                         |           |
| Complete one of the following courses:                                                                                                                                                            |                                         |           |
| ARTH 250L                                                                                                                                                                                         | Introduction to Art Criticism           |           |
| MART 101L                                                                                                                                                                                         | Intro to Media Arts                     |           |
| MUSI 202L                                                                                                                                                                                         | Intro to Music Literature               |           |
| <b>History</b>                                                                                                                                                                                    |                                         |           |
| Complete one of the following courses:                                                                                                                                                            |                                         |           |
| ARTH 150H                                                                                                                                                                                         | Introduction to Art History             |           |
| MART 201H                                                                                                                                                                                         | History of Digital Arts & Culture       |           |
| MUSI 302H                                                                                                                                                                                         | Music History II                        |           |
| <b>Advanced Writing</b>                                                                                                                                                                           |                                         |           |
| Complete one of the following courses:                                                                                                                                                            |                                         |           |
| ARTH 350                                                                                                                                                                                          | Contemporary Art and Art Criticism      |           |
| MART 450                                                                                                                                                                                          | Topics in Film & Media Studies          |           |
| MUSI 415                                                                                                                                                                                          | Music 20th Century to Present           |           |
| MUSI 416                                                                                                                                                                                          | Topics in Music History                 |           |
| MUSI 417                                                                                                                                                                                          | Cultural Studies in Music               |           |
| <b>Secondary Area Requirement</b>                                                                                                                                                                 |                                         |           |
| Complete 9 credits within the College of the Arts & Media or a related department in a secondary area of focus. These courses are chosen in consultation with the CAM adviser and faculty mentor. |                                         | 9         |
| <b>Capstone</b>                                                                                                                                                                                   |                                         |           |
| Complete the following course:                                                                                                                                                                    |                                         |           |
| MART 499                                                                                                                                                                                          | Senior Project                          | 3         |
| <b>Total Hours</b>                                                                                                                                                                                |                                         | <b>68</b> |

## Four Year Plan

| Course          | Title                                  | Hours     |
|-----------------|----------------------------------------|-----------|
| <b>Freshman</b> |                                        |           |
| <b>Autumn</b>   |                                        |           |
| ARTZ 105A       | Visual Language - Drawing              | 3         |
| MART 101L       | Intro to Media Arts                    | 3         |
| WRIT 101        | College Writing I                      | 4         |
| MART 245        | Sound Production & Design Fundamentals | 3         |
| Math Course     |                                        | 3         |
| <b>Hours</b>    |                                        | <b>16</b> |
| <b>Spring</b>   |                                        |           |
| MART 120        | Creative Coding I                      | 3         |
| MART 112A       | Introduction to Film Editing           | 3         |
| GDSN 149A       | Digital Imaging I                      | 3         |

|                               |                                             |            |
|-------------------------------|---------------------------------------------|------------|
| General Education Requirement |                                             | 7          |
| <b>Hours</b>                  |                                             | <b>16</b>  |
| <b>Sophomore</b>              |                                             |            |
| <b>Autumn</b>                 |                                             |            |
| MUST 110                      | Digital Audio & Multitracking               | 2          |
| ARTH 150H                     | Introduction to Art History                 | 3          |
| MART 210                      | Creation of Media Story                     | 3          |
| MART 220                      | Creative Coding II                          | 3          |
| MUST 210                      | Sequencing, Synthesis, and Sampling         | 2          |
| General Education Requirement |                                             | 4          |
| <b>Hours</b>                  |                                             | <b>17</b>  |
| <b>Spring</b>                 |                                             |            |
| MUST 310                      | Interactivity and Digital Signal Processing | 2          |
| MART 330                      | Principles of Sound Design                  | 3          |
| Media Arts Elective           |                                             | 6          |
| General Education Requirement |                                             | 6          |
| <b>Hours</b>                  |                                             | <b>17</b>  |
| <b>Junior</b>                 |                                             |            |
| <b>Autumn</b>                 |                                             |            |
| MART 420                      | Sonic Programming                           | 3          |
| MART 340                      | Principles of Interactive Media             | 3          |
| MART 345                      | Sound for Film                              | 3          |
| General Education Requirement |                                             | 6          |
| <b>Hours</b>                  |                                             | <b>15</b>  |
| <b>Spring</b>                 |                                             |            |
| MART 440                      | Technology and Interactive Media Design     | 3          |
| MART 445                      | Sound for Digital Media                     | 3          |
| Media Arts Elective           |                                             | 6          |
| General Education Requirement |                                             | 3          |
| <b>Hours</b>                  |                                             | <b>15</b>  |
| <b>Senior</b>                 |                                             |            |
| <b>Autumn</b>                 |                                             |            |
| MART 450                      | Topics in Film & Media Studies              | 3          |
| Media Art Elective            |                                             | 4          |
| General Education Requirement |                                             | 6          |
| <b>Hours</b>                  |                                             | <b>13</b>  |
| <b>Spring</b>                 |                                             |            |
| MUST 410                      | Designing the Show                          | 2          |
| MART 499                      | Senior Project                              | 3          |
| General Education Requirement |                                             | 6          |
| Elective                      |                                             | 6          |
| <b>Hours</b>                  |                                             | <b>17</b>  |
| <b>Total Hours</b>            |                                             | <b>126</b> |

*Last updated Autumn 2024*

## Media Arts Minor

The Media Arts minor program lives in the School of Visual and Media Arts (SVMA) and offers an integrated curriculum centered in digital technology as a storytelling, art, and design supplement to the work of those undergraduate students whose major area of study can be enhanced through the application of Media Arts principles and technologies. Depending on the courses taken, the minor can be accomplished completely online.

## General Degree Requirements

To earn a baccalaureate degree, all students must complete successfully, in addition to any other requirements, the University of Montana

General Education Requirements. Please refer to the General Education Requirements page (p. 39) for more information.

Additional requirements for graduation can be found on the Degree/Certificate Requirements for Graduation page (p. 36).

Unless otherwise noted in individual program requirements, a minimum grade point average of 2.00 in all work attempted at the University of Montana-Missoula is required for graduation. Please see the Academic Policies and Procedures page (p. 25) for information on how your GPA is calculated.

Courses taken to satisfy the requirements of a major, minor, or certificate program must be completed with a grade of C- or better unless a higher grade is noted in the program requirements.

Minor - Media Arts

Course Requirements

| Code                                                                                                                                                                                                                                                                                                                                                       | Title                             | Hours |
|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-----------------------------------|-------|
| Core Courses                                                                                                                                                                                                                                                                                                                                               |                                   |       |
| Complete all of the following courses:                                                                                                                                                                                                                                                                                                                     |                                   |       |
| MART 101L                                                                                                                                                                                                                                                                                                                                                  | Intro to Media Arts               | 3     |
| MART 201H                                                                                                                                                                                                                                                                                                                                                  | History of Digital Arts & Culture | 3     |
| Electives <sup>1</sup>                                                                                                                                                                                                                                                                                                                                     |                                   |       |
| Complete 15 additional elective credits outside of the student's major that support work and development in Media Arts. These credits can be in Media Arts courses only or can be a combination of courses that include courses offered across the College of the Arts and Media as long as the total of non-Media Arts courses does not exceed 9 credits. |                                   | 15    |
| Total Hours                                                                                                                                                                                                                                                                                                                                                |                                   | 21    |

<sup>1</sup> For more information on potential class groupings that will satisfy the elective requirements of the minor, please see the Media Arts Director or advisor.

Ceramics Certificate

The Certificate in Ceramics offers students the opportunity to learn about Ceramics as art making material in both depth and breadth. Students will learn many ceramics techniques, including hand building, wheel throwing, as well as contemporary and historical ceramics. This hands-on learning in studio-based courses offers students time and facilities to express their own ideas and work with others.

General Certificate Requirements

Additional requirements for graduation can be found on the Degree/Certificate Requirements for Graduation page (p. 36).

Unless otherwise noted in individual program requirements, a minimum grade point average of 2.00 in all work attempted at the University of Montana-Missoula is required for graduation. Please see the Academic Policies and Procedures page (p. 25) for information on how your GPA is calculated.

Courses taken to satisfy the requirements of a major, minor, or certificate program must be completed with a grade of C- or better unless a higher grade is noted in the program requirements.

Post-Secondary Certificate - Ceramics

- This certificate requires a minimum grade of B in all required courses.

Course Requirements

| Code                                   | Title                       | Hours |
|----------------------------------------|-----------------------------|-------|
| Complete all of the following courses: |                             |       |
| ARTZ 231A                              | Ceramics I                  | 3     |
| ARTZ 331                               | Ceramics II (taken twice)   | 6     |
| ARTZ 430                               | Advanced Research- Ceramics | 3     |
| Total Hours                            |                             | 12    |

Creative Coding Certificate

The Creative Coding Certificate allows students to learn the basics of coding and development in computer-mediated art and creative practices. This foundational certificate is open to the entire university community and serves to augment an individual's skills. Students will learn the basics of coding, object-oriented programming, signal flow, and time-based creative processes.

General Certificate Requirements

Additional requirements for graduation can be found on the Degree/Certificate Requirements for Graduation page (p. 36).

Unless otherwise noted in individual program requirements, a minimum grade point average of 2.00 in all work attempted at the University of Montana-Missoula is required for graduation. Please see the Academic Policies and Procedures page (p. 25) for information on how your GPA is calculated.

Courses taken to satisfy the requirements of a major, minor, or certificate program must be completed with a grade of C- or better unless a higher grade is noted in the program requirements.

Post-Secondary Certificate - Creative Coding

Course Requirements

| Code                                         | Title                                 | Hours |
|----------------------------------------------|---------------------------------------|-------|
| Core Courses                                 |                                       |       |
| Complete all of the following courses:       |                                       |       |
| MART 120                                     | Creative Coding I                     | 3     |
| MART 220                                     | Creative Coding II                    | 3     |
| Electives                                    |                                       |       |
| Complete 6 credits of the following courses: |                                       | 6     |
| MART 210                                     | Creation of Media Story               |       |
| MART 340                                     | Principles of Interactive Media       |       |
| MART 342                                     | Art & Science of Interactive Games    |       |
| MART 420                                     | Sonic Programming                     |       |
| MART 441                                     | Browser-based Games                   |       |
| MART 460                                     | Fundamentals of the Unity Game Engine |       |
| Total Hours                                  |                                       | 12    |



## Creative Entrepreneurship Certificate

This certificate provides students with entrepreneurial skills geared specifically for arts and media careers and encourages students to explore course synergies found across the College of Arts and Media, the College of Business, and the Department of Public Administration and Policy.

The certificate is comprised of introductory business courses, area-specific courses, and a culminating practicum or internship. It is designed to supplement the Arts and Media curricula by providing administrative skills needed to be successful across the creative industries. A Certificate in Creative Entrepreneurship will provide applied practical training and will be available to all College of Arts and Media students within their four-year course plan.

### General Certificate Requirements

Additional requirements for graduation can be found on the Degree/Certificate Requirements for Graduation page (p. 36).

Unless otherwise noted in individual program requirements, a minimum grade point average of 2.00 in all work attempted at the University of Montana-Missoula is required for graduation. Please see the Academic Policies and Procedures page (p. 25) for information on how your GPA is calculated.

Courses taken to satisfy the requirements of a major, minor, or certificate program must be completed with a grade of C- or better unless a higher grade is noted in the program requirements.

## Post-Secondary Certificate - Creative Entrepreneurship

### Course Requirements

| Code                                         | Title                                        | Hours |
|----------------------------------------------|----------------------------------------------|-------|
| <b>Business Courses</b>                      |                                              |       |
| Complete 6 credits of the following courses: |                                              | 6     |
| ACTG 201                                     | Principles of Financial Accounting           |       |
| BGEN 222                                     | Business Models and Operations               |       |
| BMGT 101S                                    | Introduction to Entertainment Management     |       |
| BMGT 401                                     | Entertainment and Sports Event Management    |       |
| BMGT 402                                     | Principles of Entertainment & Sport Business |       |
| NPAD 166Y                                    | Introduction to Public Service               |       |
| <b>Media Arts</b>                            |                                              |       |
| Complete 3 credits of the following courses: |                                              | 3     |
| BMGT 275                                     | Venue Management                             |       |
| BMKT 420                                     | Integrated Online Marketing                  |       |
| GDSN 149A                                    | Digital Imaging I                            |       |
| GDSN 231                                     | Graphic Design Applications                  |       |
| JRNL 300                                     | First Amendment and Media Law                |       |
| JRNL 332                                     | Social Media and Audience                    |       |
| MART 101L                                    | Intro to Media Arts                          |       |
| MART 112A                                    | Introduction to Film Editing                 |       |
| MART 341                                     | Introduction to Web Design                   |       |
| NPAD 368                                     | Policy Process and Implementation            |       |

|                                                     |                                          |           |
|-----------------------------------------------------|------------------------------------------|-----------|
| NPAD 465                                            | Solving Public Policy Problems with Data |           |
| THTR 485                                            | Theatre for Social Justice               |           |
| <b>Internship</b>                                   |                                          |           |
| Complete 3 credits of one of the following courses: |                                          | 3         |
| ARTZ 395                                            | Art Field Experience                     |           |
| BMGT 498                                            | Internship                               |           |
| JRNL 498                                            | Supervised Internship                    |           |
| MART 398                                            | Internship                               |           |
| THTR 398                                            | Cooperative Education/Internship         |           |
| THTR 498                                            | Cooperative Education/Internship         |           |
| <b>Total Hours</b>                                  |                                          | <b>12</b> |

## Digital & Graphic Design Certificate

The Digital & Graphic Design Certificate provides students the opportunity to establish a base understanding of the tools and techniques of computer-based digital imaging, design, and publication. Ranging from photo editing/manipulation and graphical elements (raster and vector) to typography, layout design, and basic animation. Student learn to design elements to convey information in a compelling and persuasive way.

### General Certificate Requirements

Additional requirements for graduation can be found on the Degree/Certificate Requirements for Graduation page (p. 36).

Unless otherwise noted in individual program requirements, a minimum grade point average of 2.00 in all work attempted at the University of Montana-Missoula is required for graduation. Please see the Academic Policies and Procedures page (p. 25) for information on how your GPA is calculated.

Courses taken to satisfy the requirements of a major, minor, or certificate program must be completed with a grade of C- or better unless a higher grade is noted in the program requirements.

### Online Program Option

This program may be completed in an online format (<https://catalog.umd.edu/online-programs/definitions/>). Students interested in pursuing an online degree or certificate program are strongly encouraged to contact the offering department to discuss specific program and course modalities (<https://catalog.umd.edu/online-programs/definitions/>) and create a plan of study with an academic advisor. The course requirements listed below may not be consistently offered via online delivery.

## Post-Secondary Certificate - Digital and Graphic Design

### Course Requirements

| Code                                          | Title                                 | Hours     |
|-----------------------------------------------|---------------------------------------|-----------|
| <b>Complete all of the following courses:</b> |                                       |           |
| GDSN 149A                                     | Digital Imaging I                     | 3         |
| GDSN 231                                      | Graphic Design Applications           | 3         |
| or JRNL 430                                   | Print & Web Editing & Design          |           |
| MART 255                                      | Photoshop: Art and Design             | 3         |
| MART 256                                      | Illustrator: Vector and Layout Design | 3         |
| <b>Total Hours</b>                            |                                       | <b>12</b> |

## Documentary Film Certificate

The certificate in documentary film provides students with the practical skills and theoretical knowledge needed to successfully communicate concepts and narratives via the modes of non-fiction filmmaking. Students will acquire a foundational knowledge of essential techniques in cinematography, editing, and sound mixing, and apply them in both journalistic and artistic ways.

The skills and knowledge gained through the completion of this certificate are applicable to many fields, and are complimentary to the work of any student seeking to communicate non-fiction narratives through visual means.

## General Certificate Requirements

Additional requirements for graduation can be found on the Degree/Certificate Requirements for Graduation page (p. 36).

Unless otherwise noted in individual program requirements, a minimum grade point average of 2.00 in all work attempted at the University of Montana-Missoula is required for graduation. Please see the Academic Policies and Procedures page (p. 25) for information on how your GPA is calculated.

Courses taken to satisfy the requirements of a major, minor, or certificate program must be completed with a grade of C- or better unless a higher grade is noted in the program requirements.

## Online Program Option

This program may be completed in an online format (<https://catalog.umat.edu/online-programs/definitions/>). Students interested in pursuing an online degree or certificate program are strongly encouraged to contact the offering department to discuss specific program and course modalities (<https://catalog.umat.edu/online-programs/definitions/>) and create a plan of study with an academic advisor. The course requirements listed below may not be consistently offered via online delivery.

## Post-Secondary Certificate - Documentary Film

### Course Requirements

| Code                                          | Title                                     | Hours     |
|-----------------------------------------------|-------------------------------------------|-----------|
| <b>Complete all of the following courses:</b> |                                           |           |
| JRNL 257A                                     | Beginning Video and Photojournalism       | 3         |
| JRNL 350                                      | Intermediate Video Photography            | 3         |
| JRNL 488                                      | Student Documentary Unit                  | 3         |
| or MART 455                                   | Visions of Documentary Film               |           |
| JRNL 491                                      | Special Topics (Documentary Film History) | 3         |
| MART 345                                      | Sound for Film                            | 3         |
| <b>Total Hours</b>                            |                                           | <b>15</b> |

## Game Design Certificate

The Game Design Certificate allows students to acquire in-demand skills in game design and development. After completing the core group of three courses, which offer foundational knowledge in game theory, game history, and game development techniques, the student may choose a fourth course to deepen their knowledge in one of these areas. Students

are encouraged to have previous experience in coding either through the Creative Coding Certificate or other computer science and development training.

## General Certificate Requirements

Additional requirements for graduation can be found on the Degree/Certificate Requirements for Graduation page (p. 36).

Unless otherwise noted in individual program requirements, a minimum grade point average of 2.00 in all work attempted at the University of Montana-Missoula is required for graduation. Please see the Academic Policies and Procedures page (p. 25) for information on how your GPA is calculated.

Courses taken to satisfy the requirements of a major, minor, or certificate program must be completed with a grade of C- or better unless a higher grade is noted in the program requirements.

## Post-Secondary Certificate - Game Design

### Course Requirements

| Code                                         | Title                                 | Hours     |
|----------------------------------------------|---------------------------------------|-----------|
| <b>Required Courses</b>                      |                                       |           |
| Complete all of the following courses:       |                                       |           |
| MART 342                                     | Art & Science of Interactive Games    | 3         |
| MART 361                                     | Serious Games                         | 3         |
| MART 460                                     | Fundamentals of the Unity Game Engine | 3         |
| <b>Electives</b>                             |                                       |           |
| Complete 3 credits of the following courses: |                                       | 3         |
| MART 360                                     | Game Ethics                           |           |
| MART 391                                     | Special Topics                        |           |
| MART 461                                     | Multiplayer Games                     |           |
| MART 462                                     | Mobile Game Programming               |           |
| MART 491                                     | Special Topics                        |           |
| <b>Total Hours</b>                           |                                       | <b>12</b> |

## Interactive Art & Media Certificate

The Interactive Art & Media Certificate allows students to learn how to apply computer-mediated artistic skills to interactive systems and artwork. This intermediate-level certificate engages students in interactive theory, interactive technologies (including immersive environments, virtual reality, augmented reality, and generative art), and the aesthetics of interactive art and media.

## General Certificate Requirements

Additional requirements for graduation can be found on the Degree/Certificate Requirements for Graduation page (p. 36).

Unless otherwise noted in individual program requirements, a minimum grade point average of 2.00 in all work attempted at the University of Montana-Missoula is required for graduation. Please see the Academic Policies and Procedures page (p. 25) for information on how your GPA is calculated.

Courses taken to satisfy the requirements of a major, minor, or certificate program must be completed with a grade of C- or better unless a higher grade is noted in the program requirements.

## Post-Secondary Certificate - Interactive Art and Media

### Course Requirements

| Code                                         | Title                                                  | Hours     |
|----------------------------------------------|--------------------------------------------------------|-----------|
| <b>Required Courses</b>                      |                                                        |           |
| Complete all of the following courses:       |                                                        |           |
| MART 340                                     | Principles of Interactive Media                        | 3         |
| MART 440                                     | Technology Design for Interactive and Installation Art | 3         |
| <b>Electives</b>                             |                                                        |           |
| Complete 6 credits of the following courses: |                                                        |           |
| ARTZ 108A                                    | Visual Language - 3-D Foundations                      | 6         |
| MART 210                                     | Creation of Media Story                                |           |
| MART 441                                     | Browser-based Games                                    |           |
| MART 420                                     | Sonic Programming                                      |           |
| MART 460                                     | Fundamentals of the Unity Game Engine                  |           |
| <b>Total Hours</b>                           |                                                        | <b>12</b> |

## The New West: Art and the Environment Certificate

Art provides a critical lens to explore the history, use, and contemporary stewardship of western American lands. Working independently and collaboratively in hands-on research, students will study in the field, studio, seminar, and lecture. This certificate is appropriate for students from a wide range of disciplines. Students learn visual expression skills for innovative interpretations and positive solutions.

Students are admitted to the New West Certificate by completion of application. The application is posted on line through the School of Visual and Media Arts website (<https://www.umt.edu/academics/programs/new-west-art/default.php>).

### General Certificate Requirements

Additional requirements for graduation can be found on the Degree/Certificate Requirements for Graduation page (p. 36).

Unless otherwise noted in individual program requirements, a minimum grade point average of 2.00 in all work attempted at the University of Montana-Missoula is required for graduation. Please see the Academic Policies and Procedures page (p. 25) for information on how your GPA is calculated.

Courses taken to satisfy the requirements of a major, minor, or certificate program must be completed with a grade of C- or better unless a higher grade is noted in the program requirements.

## Post-Secondary Certificate - The New West: Art and the Environment

### Course Requirements

| Code                                                 | Title                                               | Hours |
|------------------------------------------------------|-----------------------------------------------------|-------|
| <b>Complete 12 credits of the following courses:</b> |                                                     |       |
| ARTH 444                                             | Open Range: Land Art and the American Consciousness | 12    |
| ARTZ 314A                                            | Environmental Drawing                               |       |

|                    |              |           |
|--------------------|--------------|-----------|
| ARTZ 321           | Painting II  |           |
| ARTZ 351           | Sculpture II |           |
| <b>Total Hours</b> |              | <b>12</b> |

## Photography and Digital Imaging Certificate

This certificate provides fundamental vocational training for anyone who needs to create or utilize effective, compelling photographic images for visual communication. From practical application to conceptual execution, photography has implications across all academic disciplines from the arts to the sciences. This certificate is designed to develop the student's technical proficiency and creative skill with lens-based media that they can then leverage in whatever career path they might pursue. Students will gain a thorough understanding of camera operation, post-production image editing and retouching, and critical aspects relating to the aesthetics of photography. This certificate is relevant for practically any major discipline across campus. Both fine art and documentary pathways are available.

### General Certificate Requirements

Additional requirements for graduation can be found on the Degree/Certificate Requirements for Graduation page (p. 36).

Unless otherwise noted in individual program requirements, a minimum grade point average of 2.00 in all work attempted at the University of Montana-Missoula is required for graduation. Please see the Academic Policies and Procedures page (p. 25) for information on how your GPA is calculated.

Courses taken to satisfy the requirements of a major, minor, or certificate program must be completed with a grade of C- or better unless a higher grade is noted in the program requirements.

## Post-Secondary Certificate - Photography and Digital Imaging

### Course Requirements

| Code                                          | Title                                           | Hours     |
|-----------------------------------------------|-------------------------------------------------|-----------|
| <b>Complete all of the following courses:</b> |                                                 |           |
| GDSN 149A                                     | Digital Imaging I                               | 3         |
| MART 255                                      | Photoshop: Art and Design                       | 3         |
| ARTZ 284A                                     | Photography I: Technologies and Processes       | 3         |
| or JRNL 257A                                  | Beginning Video and Photojournalism             |           |
| MAR 251                                       | Digital Video Production Technology             | 3         |
| or ARTZ 384                                   | Photography II: Theory, Criticism, and Practice |           |
| or ARTZ 383                                   | Analog Photography                              |           |
| <b>Total Hours</b>                            |                                                 | <b>12</b> |

## Sonic Arts Certificate

The Sonic Arts certificate offers students an opportunity to develop skills, technique, and theory in audio and sound. The directed sequence of courses assumes students are coming in with no formal training in sound or audio and allows them to acquire knowledge around the science of

sound, the practical applications of working with sound, capturing and manipulating sound for artistic purposes, and basic studio techniques.

General Certificate Requirements

Additional requirements for graduation can be found on the Degree/ Certificate Requirements for Graduation page (p. 36).

Unless otherwise noted in individual program requirements, a minimum grade point average of 2.00 in all work attempted at the University of Montana-Missoula is required for graduation. Please see the Academic Policies and Procedures page (p. 25) for information on how your GPA is calculated.

Courses taken to satisfy the requirements of a major, minor, or certificate program must be completed with a grade of C- or better unless a higher grade is noted in the program requirements.

Post-Secondary Certificate - Sonic Arts

Course Requirements

| Code                                   | Title                                  | Hours |
|----------------------------------------|----------------------------------------|-------|
| Complete all of the following courses: |                                        |       |
| MART 245                               | Sound Production & Design Fundamentals | 3     |
| MART 300                               | Visions of Film                        | 3     |
| MART 345                               | Sound for Film                         | 3     |
| MART 445                               | Sound for Digital Media                | 3     |
| Total Hours                            |                                        | 12    |

Sound Design Certificate

The Sound Design Certificate offers students with previous experience in sound (particularly those who have completed the Sound Production Fundamentals Certificate) an opportunity to develop advanced skills, technique, and theory in sound design and production. Students will gain advanced technical skills in mixing, design, and mastering, as well as expand their creative skills in using sound as a medium for art and communication.

This program is based out of the School of Visual & Media Arts, and is in partnership with Schools of the College of the Arts & Media.

General Certificate Requirements

Additional requirements for graduation can be found on the Degree/ Certificate Requirements for Graduation page (p. 36).

Unless otherwise noted in individual program requirements, a minimum grade point average of 2.00 in all work attempted at the University of Montana-Missoula is required for graduation. Please see the Academic Policies and Procedures page (p. 25) for information on how your GPA is calculated.

Courses taken to satisfy the requirements of a major, minor, or certificate program must be completed with a grade of C- or better unless a higher grade is noted in the program requirements.

Post-Secondary Certificate - Sound Design

Course Requirements

| Code                                         | Title                                       | Hours |
|----------------------------------------------|---------------------------------------------|-------|
| Required Courses                             |                                             |       |
| Complete all of the following courses:       |                                             |       |
| MUST 310                                     | Interactivity and Digital Signal Processing | 2     |
| MART 345                                     | Sound for Film                              | 3     |
| MART 445                                     | Sound for Digital Media                     | 3     |
| Electives                                    |                                             |       |
| Complete 4 credits of the following courses: |                                             | 4     |
| MART 330                                     | Principles of Sound Design                  |       |
| MART 420                                     | Sonic Programming                           |       |
| MUSI 304A                                    | Sound in the Natural World                  |       |
| MUST 410                                     | Designing the Show                          |       |
| THTR 365                                     | Theatre Sound I                             |       |
| Total Hours                                  |                                             | 12    |

Sound Production Fundamentals Certificate

The Sound Production Fundamentals Certificate offers students from any background and experience level an opportunity to develop skills, technique, and theory in sound production. These skills may be applied to independent producers, aspiring podcasters, sound designers for media (games, film, or social media), or to the individual working in an area that would benefit from increased skills and knowledge in how to work with and manipulate digital audio and sound. The directed sequence of courses assumes students have no prior formal training in sound or audio.

This program is based out of the School of Visual & Media Arts and is in partnership with School of Journalism and School of Music, both of which are also located within the College of the Arts & Media.

General Certificate Requirements

Additional requirements for graduation can be found on the Degree/ Certificate Requirements for Graduation page (p. 36).

Unless otherwise noted in individual program requirements, a minimum grade point average of 2.00 in all work attempted at the University of Montana-Missoula is required for graduation. Please see the Academic Policies and Procedures page (p. 25) for information on how your GPA is calculated.

Courses taken to satisfy the requirements of a major, minor, or certificate program must be completed with a grade of C- or better unless a higher grade is noted in the program requirements.

Post-Secondary Certificate - Sound Production Fundamentals

Course Requirements

| Code                           | Title | Hours |
|--------------------------------|-------|-------|
| Required Course                |       |       |
| Complete the following course: |       |       |

|                                              |                                        |           |
|----------------------------------------------|----------------------------------------|-----------|
| MART 245                                     | Sound Production & Design Fundamentals | 3         |
| <b>Electives</b>                             |                                        |           |
| Complete 9 credits of the following courses: |                                        | 9         |
| JRNL 140A                                    | Intro Radio/Audio Storytelling         |           |
| M 118                                        | Mathematics for Music Enthusiasts      |           |
| MUSI 104A                                    | Music Fundamentals                     |           |
| MUSI 135A                                    | Keyboard Skills I                      |           |
| MUST 210                                     | Sequencing, Synthesis, and Sampling    |           |
| THTR 365                                     | Theatre Sound I                        |           |
| <b>Total Hours</b>                           |                                        | <b>12</b> |

## Web Design Certificate

The Web Design Certificate allows students to acquire in-demand skills in web design and development. After completing the core group of three courses, which offer foundational knowledge in general creative coding, front-end development, and asset creation, students may choose a fourth course to deepen their knowledge in one of these areas. Students who complete the Web Design Certificate will have knowledge of how the web works, how to develop web sites, and web design approaches.

## General Certificate Requirements

Additional requirements for graduation can be found on the Degree/Certificate Requirements for Graduation page (p. 36).

Unless otherwise noted in individual program requirements, a minimum grade point average of 2.00 in all work attempted at the University of Montana-Missoula is required for graduation. Please see the Academic Policies and Procedures page (p. 25) for information on how your GPA is calculated.

Courses taken to satisfy the requirements of a major, minor, or certificate program must be completed with a grade of C- or better unless a higher grade is noted in the program requirements.

## Online Program Option

This program may be completed in an online format (<https://catalog.umn.edu/online-programs/definitions/>). Students interested in pursuing an online degree or certificate program are strongly encouraged to contact the offering department to discuss specific program and course modalities (<https://catalog.umn.edu/online-programs/definitions/>) and create a plan of study with an academic advisor. The course requirements listed below may not be consistently offered via online delivery.

## Post-Secondary Certificate - Web Design Course Requirements

| Code                                         | Title                       | Hours |
|----------------------------------------------|-----------------------------|-------|
| <b>Required Courses</b>                      |                             |       |
| Complete all of the following courses:       |                             |       |
| MART 120                                     | Creative Coding I           | 3     |
| MART 341                                     | Introduction to Web Design  | 3     |
| MART 441                                     | Browser-based Games         | 3     |
| <b>Electives</b>                             |                             |       |
| Complete 3 credits of the following courses: |                             | 3     |
| GDSN 149A                                    | Digital Imaging I           |       |
| GDSN 231                                     | Graphic Design Applications |       |

|                    |                                       |           |
|--------------------|---------------------------------------|-----------|
| MART 255           | Photoshop: Art and Design             |           |
| MART 256           | Illustrator: Vector and Layout Design |           |
| MART 461           | Multiplayer Games                     |           |
| <b>Total Hours</b> |                                       | <b>12</b> |

## College of Business

The College of Business (<http://www.business.umn.edu/>), founded in 1918, is the largest professional school at the University. All programs are accredited by AACSB International The Association to Advance Collegiate Schools of Business, and accounting programs also hold separate AACSB accreditation.

The College of Business at the University of Montana creates transformative, integrated, and student-centric learning experiences, propelling our students to make immediate and sustained impacts on business and society. We nurture our students innate work ethic to develop confident problem solvers and ethical decision makers. We pursue thought leadership and collectively create opportunities for a better life for our students, faculty, and staff.

The goal of the College of Business's programs is to provide a broad foundation in business practice and theory, supplemented by deep expertise within one or more specific business disciplines through majors and certificates. The complexity of contemporary society has increased the need for responsible, ethical leadership in organizations with local and global reach. A professional business education combined with solid grounding in the liberal arts and sciences prepares men and women to meet difficult challenges and to contribute to society in meaningful ways. College of Business graduates work in business, nonprofit, and government sectors all over the world.

- Accounting and Finance Department (p. 126)
  - Accounting B.S. in Business Administration (p. 126)
  - Finance B.S. in Business Administration (p. 127)
  - Finance Data Analytics Certificate (<https://catalog.umn.edu/colleges-schools-programs/business/accounting-finance/cert-finance-data-analytics/>)
  - Information and Control Assurance Certificate (p. 129)
- Management and Marketing Department (p. 130)
  - Business Management B.S. in Business Administration (p. 130)
  - Entertainment, Events, and Sports Management B.S. in Business Administration (p. 132)
  - International Business B.S. in Business Administration (p. 133)
  - Digital Marketing Certificate (p. 134)
  - Entertainment Management Certificate (p. 134)
  - Entrepreneurship and New Venture Creation Certificate (p. 135)
  - Logistics & Supply Chain Management Certificate (p. 135)
  - Marketing B.S. in Business Administration (p. 136)
  - Sustainable Business Strategy Certificate (p. 137)
- Management Information Systems Department (p. 138)
  - Management Information Systems B.S. in Business Administration (p. 138)
  - Cybersecurity B.S. (p. 140)
  - Big Data Analytics Certificate (p. 141)
  - Cybersecurity Management Certificate (p. 141)
- Business Administration Minor (p. 142)



## Accounting and Finance Department

The Department of Accounting and Finance prepares ethically aware decision-makers with effective analytical and qualitative business knowledge and skills to become professionals in their respective fields in the region and beyond. We commit to high quality teaching and applying scholarship to professional practice, pedagogy, and theory to enhance the professional accounting and finance fields. The department offers the Master of Accountancy degree and two undergraduate majors within the Bachelor of Science in Business Administration degree: Accounting and Finance. The department also offers a Certificate in Accounting Information Systems.

- Accounting B.S. in Business Administration (p. 126)
- Finance B.S. in Business Administration (p. 127)
- Finance Data Analytics Certificate (<https://catalog.umont.edu/colleges-schools-programs/business/accounting-finance/cert-finance-data-analytics/>)
- Information and Control Assurance Certificate (p. 129)

## Accounting B.S. in Business Administration

The undergraduate accounting program is committed to preparing students to apply accounting and business knowledge in organizations. Students develop competence in a broad range of accounting practices. The curriculum strives to foster critical thinking and problem-solving skills. Students are prepared to enter professional positions in accounting with business, nonprofit, or government organizations. Accounting programs in the College of Business hold separate AACSB International accreditation.

See the College of Business (p. 125) section of the catalog for additional credit restrictions and residency requirements.

## General Degree Requirements

To earn a baccalaureate degree, all students must complete successfully, in addition to any other requirements, the University of Montana General Education Requirements. Please refer to the General Education Requirements page (p. 39) for more information.

Additional requirements for graduation can be found on the Degree/Certificate Requirements for Graduation page (p. 36).

Unless otherwise noted in individual program requirements, a minimum grade point average of 2.00 in all work attempted at the University of Montana-Missoula is required for graduation. Please see the Academic Policies and Procedures page (p. 25) for information on how your GPA is calculated.

Courses taken to satisfy the requirements of a major, minor, or certificate program must be completed with a grade of C- or better unless a higher grade is noted in the program requirements.

## Bachelor of Science in Business Administration - Accounting

- At least 54 credits must be earned in business classes (ECNS, COB internship courses, and COB faculty-led study abroad courses may be counted as business classes). A minimum GPA of 2.0 is required for these courses.

- No more than 30 credits of ACTG (including ACTG 201 and ACTG 202) may count towards the 120 credits required to graduate.
- At least 27 credits in business, the capstone courses, and all required 400-level accounting courses must be taken at UM.
- All business credits transferred in after matriculating to UM must be pre-approved by the department chair in your major.

## Course Requirements

| Code                                                                | Title                                                                                                                                                                              | Hours |
|---------------------------------------------------------------------|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-------|
| <b>Primary Lower Core</b>                                           |                                                                                                                                                                                    |       |
| Complete all of the following courses:                              |                                                                                                                                                                                    |       |
| ACTG 201                                                            | Principles of Financial Accounting                                                                                                                                                 | 3     |
| ACTG 202                                                            | Principles of Managerial Accounting                                                                                                                                                | 3     |
| BGEN 105S                                                           | Introduction to Business                                                                                                                                                           | 3     |
| BGEN 222                                                            | Business Models and Operations                                                                                                                                                     | 3     |
| BMIS 270                                                            | MIS Foundations for Business                                                                                                                                                       | 3     |
| ECNS 201S                                                           | Principles of Microeconomics                                                                                                                                                       | 3     |
| <b>Mathematics Requirement</b>                                      |                                                                                                                                                                                    |       |
| Complete one of the following courses:                              |                                                                                                                                                                                    | 3-4   |
| M 115                                                               | Probability and Linear Mathematics                                                                                                                                                 |       |
| M 121                                                               | College Algebra                                                                                                                                                                    |       |
| M 151                                                               | Precalculus                                                                                                                                                                        |       |
| M 162                                                               | Applied Calculus                                                                                                                                                                   |       |
| <b>Statistics Requirement</b>                                       |                                                                                                                                                                                    |       |
| Complete one of the following courses:                              |                                                                                                                                                                                    | 3-4   |
| FORS 201                                                            | Forest Biometrics                                                                                                                                                                  |       |
| PSYX 222                                                            | Psychological Statistics                                                                                                                                                           |       |
| SOCI 202                                                            | Social Statistics                                                                                                                                                                  |       |
| STAT 216                                                            | Introduction to Statistics (preferred)                                                                                                                                             |       |
| <b>Secondary Lower Core Courses <sup>1</sup></b>                    |                                                                                                                                                                                    |       |
| Complete all of the following courses:                              |                                                                                                                                                                                    |       |
| BGEN 220E                                                           | Business Ethics and Social Responsibility (Students must complete this course with a C- or better prior to taking the capstone, though earlier completion is strongly encouraged.) | 3     |
| COMX 111A                                                           | Introduction to Public Speaking (Students must complete this course with a C- or better prior to taking the capstone, though earlier completion is strongly encouraged.)           | 3     |
| ECNS 202S                                                           | Principles of Macroeconomics                                                                                                                                                       | 3     |
| <b>Upper Major Core Courses <sup>2</sup></b>                        |                                                                                                                                                                                    |       |
| Complete all of the following courses:                              |                                                                                                                                                                                    |       |
| BFIN 322                                                            | Business Finance                                                                                                                                                                   | 3     |
| BGEN 341                                                            | People, Process and Technology I                                                                                                                                                   | 3     |
| BGEN 342                                                            | People, Process and Technology II                                                                                                                                                  | 3     |
| BGEN 361                                                            | Principles of Business Law                                                                                                                                                         | 3     |
| BMKT 325                                                            | Principles of Marketing                                                                                                                                                            | 3     |
| <b>Capstone and Upper-Division Writing Requirement <sup>3</sup></b> |                                                                                                                                                                                    |       |
| Complete the following course:                                      |                                                                                                                                                                                    |       |
| BGEN 499                                                            | Strategic Management                                                                                                                                                               | 3     |
| <b>Accounting Required Courses</b>                                  |                                                                                                                                                                                    |       |
| Complete all of the following courses:                              |                                                                                                                                                                                    |       |
| ACTG 305                                                            | Corporate Reporting I                                                                                                                                                              | 3     |

|          |                                  |   |
|----------|----------------------------------|---|
| ACTG 306 | Corporate Reporting II           | 3 |
| ACTG 321 | Accounting Information Systems I | 3 |
| ACTG 401 | Federal Income Taxation          | 3 |
| ACTG 410 | Cost Management Accounting I     | 3 |
| ACTG 411 | Auditing I                       | 3 |
| ACTG 425 | Governmental Accounting          | 3 |

**Accounting Electives**

|                                                    |                                |   |
|----------------------------------------------------|--------------------------------|---|
| Complete three credits from the following courses: |                                | 3 |
| ACTG 426                                           | Accounting for Nonprofits      |   |
| ACTG 432                                           | Income Tax Practicum           |   |
| ACTG 498                                           | Internship <sup>4</sup>        |   |
| BGEN 445                                           | Sustainability Reporting       |   |
| BMIS 326                                           | Introduction to Data Analytics |   |

**Total Hours** **75-77**

<sup>1</sup> All courses must be completed with a C- or better to satisfy prerequisites for certain major, upper major core, or capstone courses. Students are advised to complete these courses as early as possible, preferably prior to attempting courses in the upper major core. Prerequisites are strictly enforced.

<sup>2</sup> All upper major core courses must be completed before the capstone can be taken.

<sup>3</sup> Students must complete all primary and secondary lower core and upper core courses and their prerequisites and have an approved graduation application to register for their capstones.

<sup>4</sup> No more than 4 credits of ACTG 498 may count towards the 120 credits required to graduate.

## Four Year Plan

| Course                                    | Title                                                                                             | Hours        |
|-------------------------------------------|---------------------------------------------------------------------------------------------------|--------------|
| <b>Freshman</b>                           |                                                                                                   |              |
| <b>Autumn</b>                             |                                                                                                   |              |
| BGEN 105S                                 | Introduction to Business                                                                          | 3            |
| M 115<br>or M 121<br>or M 151<br>or M 162 | Probability and Linear Mathematics<br>or College Algebra<br>or Precalculus<br>or Applied Calculus | 3-4          |
| WRIT 101<br>or COMX 111A                  | College Writing I <sup>1</sup><br>or Introduction to Public Speaking                              | 3-4          |
| General Education Requirement             |                                                                                                   | 6            |
| <b>Hours</b>                              |                                                                                                   | <b>15-17</b> |

**Spring**

|                                                       |                                                                                                           |              |
|-------------------------------------------------------|-----------------------------------------------------------------------------------------------------------|--------------|
| FORS 201<br>or PSYX 222<br>or SOCI 202<br>or STAT 216 | Forest Biometrics<br>or Psychological Statistics<br>or Social Statistics<br>or Introduction to Statistics | 3-4          |
| COMX 111A<br>or WRIT 101                              | Introduction to Public Speaking <sup>1</sup><br>or College Writing I                                      | 3-4          |
| ECNS 201S                                             | Principles of Microeconomics                                                                              | 3            |
| General Education Requirement                         |                                                                                                           | 6            |
| <b>Hours</b>                                          |                                                                                                           | <b>15-17</b> |

**Sophomore**

|                               |                                    |           |
|-------------------------------|------------------------------------|-----------|
| <b>Autumn</b>                 |                                    |           |
| ACTG 201                      | Principles of Financial Accounting | 3         |
| BGEN 222                      | Business Models and Operations     | 3         |
| ECNS 202S                     | Principles of Macroeconomics       | 3         |
| General Education Requirement |                                    | 3         |
| Elective                      |                                    | 3         |
| <b>Hours</b>                  |                                    | <b>15</b> |

|                               |                                           |           |
|-------------------------------|-------------------------------------------|-----------|
| <b>Spring</b>                 |                                           |           |
| ACTG 202                      | Principles of Managerial Accounting       | 3         |
| BMIS 270                      | MIS Foundations for Business              | 3         |
| BGEN 220E                     | Business Ethics and Social Responsibility | 3         |
| Intermediate Writing Course   |                                           | 3         |
| General Education Requirement |                                           | 3         |
| <b>Hours</b>                  |                                           | <b>15</b> |

**Junior**

|               |                                  |           |
|---------------|----------------------------------|-----------|
| <b>Autumn</b> |                                  |           |
| BFIN 322      | Business Finance                 | 3         |
| BGEN 341      | People, Process and Technology I | 3         |
| ACTG 305      | Corporate Reporting I            | 3         |
| ACTG 321      | Accounting Information Systems I | 3         |
| Elective      |                                  | 3         |
| <b>Hours</b>  |                                  | <b>15</b> |

**Spring**

|                                          |                                   |           |
|------------------------------------------|-----------------------------------|-----------|
| BGEN 361                                 | Principles of Business Law        | 3         |
| BGEN 342                                 | People, Process and Technology II | 3         |
| ACTG 306                                 | Corporate Reporting II            | 3         |
| ACCT Elective (or ACTG 425) <sup>2</sup> |                                   | 3         |
| Elective                                 |                                   | 3         |
| <b>Hours</b>                             |                                   | <b>15</b> |

**Senior**

|               |                                           |           |
|---------------|-------------------------------------------|-----------|
| <b>Autumn</b> |                                           |           |
| BMKT 325      | Principles of Marketing                   | 3         |
| ACTG 401      | Federal Income Taxation <sup>2</sup>      | 3         |
| ACTG 410      | Cost Management Accounting I <sup>2</sup> | 3         |
| Elective      |                                           | 6         |
| <b>Hours</b>  |                                           | <b>15</b> |

**Spring**

|              |                                                         |           |
|--------------|---------------------------------------------------------|-----------|
| BGEN 499     | Strategic Management                                    | 3         |
| ACTG 411     | Auditing I <sup>2</sup>                                 | 3         |
| ACTG 425     | Governmental Accounting (or ACCT elective) <sup>2</sup> | 3         |
| Elective     |                                                         | 6         |
| <b>Hours</b> |                                                         | <b>15</b> |

**Total Hours** **120-124**

*Last Updated Autumn 2025*

<sup>1</sup> Students with last names A-L will take WRIT 101 in Fall; Students with last names M-Z will take WRIT 101 in Spring.

<sup>2</sup> Noted courses are offered in specific semesters only - see GSSC to confirm term offered.

## Finance B.S. in Business Administration

The finance curriculum is designed to equip students with a comprehensive foundation in financial management, financial markets and investments. Students will gain competence in making effective decisions, performing complex analyses, providing expert financial advice, and utilizing current technology tools and data sources.

## General Degree Requirements

To earn a baccalaureate degree, all students must complete successfully, in addition to any other requirements, the University of Montana General Education Requirements. Please refer to the General Education Requirements page (p. 39) for more information.

Additional requirements for graduation can be found on the Degree/Certificate Requirements for Graduation page (p. 36).

Unless otherwise noted in individual program requirements, a minimum grade point average of 2.00 in all work attempted at the University of Montana-Missoula is required for graduation. Please see the Academic Policies and Procedures page (p. 25) for information on how your GPA is calculated.

Courses taken to satisfy the requirements of a major, minor, or certificate program must be completed with a grade of C- or better unless a higher grade is noted in the program requirements.

## Bachelor of Science in Business Administration - Finance

- At least 54 credits must be earned in business classes (ECNS, COB internship and COB faculty let study abroad courses may be counted in business classes). A minimum GPA of 2.0 is required for these courses.
- At least 27 credits in business, the capstone course, AND all required 400-level finance courses must be taken at UM.
- All business credits transferred in after matriculating to UM must be pre-approved by the department chair in your major.

### Course Requirements

| Code                                             | Title                                                                                                                                                                              | Hours |
|--------------------------------------------------|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-------|
| <b>Primary Lower Core</b>                        |                                                                                                                                                                                    |       |
| Complete all of the following courses:           |                                                                                                                                                                                    |       |
| ACTG 201                                         | Principles of Financial Accounting                                                                                                                                                 | 3     |
| ACTG 202                                         | Principles of Managerial Accounting                                                                                                                                                | 3     |
| BGEN 105S                                        | Introduction to Business                                                                                                                                                           | 3     |
| BGEN 222                                         | Business Models and Operations                                                                                                                                                     | 3     |
| BMIS 270                                         | MIS Foundations for Business                                                                                                                                                       | 3     |
| ECNS 201S                                        | Principles of Microeconomics                                                                                                                                                       | 3     |
| <b>Mathematics Requirement</b>                   |                                                                                                                                                                                    |       |
| Complete one of the following courses:           |                                                                                                                                                                                    | 3-4   |
| M 115                                            | Probability and Linear Mathematics                                                                                                                                                 |       |
| M 121                                            | College Algebra                                                                                                                                                                    |       |
| M 151                                            | Precalculus                                                                                                                                                                        |       |
| M 162                                            | Applied Calculus                                                                                                                                                                   |       |
| <b>Statistics Requirement</b>                    |                                                                                                                                                                                    |       |
| Complete one of the following courses:           |                                                                                                                                                                                    | 3-4   |
| FORS 201                                         | Forest Biometrics                                                                                                                                                                  |       |
| PSYX 222                                         | Psychological Statistics                                                                                                                                                           |       |
| SOCI 202                                         | Social Statistics                                                                                                                                                                  |       |
| STAT 216                                         | Introduction to Statistics (preferred)                                                                                                                                             |       |
| <b>Secondary Lower Core Courses</b> <sup>1</sup> |                                                                                                                                                                                    |       |
| Complete all of the following courses:           |                                                                                                                                                                                    |       |
| BGEN 220E                                        | Business Ethics and Social Responsibility (Students must complete this course with a C- or better prior to taking the capstone, though earlier completion is strongly encouraged.) | 3     |

|                                                                     |                                                                                                                                                                          |    |
|---------------------------------------------------------------------|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------|----|
| COMX 111A                                                           | Introduction to Public Speaking (Students must complete this course with a C- or better prior to taking the capstone, though earlier completion is strongly encouraged.) | 3  |
| ECNS 202S                                                           | Principles of Macroeconomics                                                                                                                                             | 3  |
| <b>Upper Major Core Courses</b> <sup>2</sup>                        |                                                                                                                                                                          |    |
| Complete all of the following courses:                              |                                                                                                                                                                          |    |
| BFIN 322                                                            | Business Finance                                                                                                                                                         | 3  |
| BGEN 341                                                            | People, Process and Technology I                                                                                                                                         | 3  |
| BGEN 342                                                            | People, Process and Technology II                                                                                                                                        | 3  |
| BGEN 361                                                            | Principles of Business Law                                                                                                                                               | 3  |
| BMKT 325                                                            | Principles of Marketing                                                                                                                                                  | 3  |
| <b>Capstone and Upper-Division Writing Requirement</b> <sup>3</sup> |                                                                                                                                                                          |    |
| Complete the following course:                                      |                                                                                                                                                                          |    |
| BGEN 499                                                            | Strategic Management                                                                                                                                                     | 3  |
| <b>Finance Required Courses</b>                                     |                                                                                                                                                                          |    |
| Complete all of the following courses:                              |                                                                                                                                                                          |    |
| BFIN 420                                                            | Investments                                                                                                                                                              | 3  |
| BFIN 424                                                            | Markets, Institutions & Financial Engineering                                                                                                                            | 3  |
| BFIN 435                                                            | Corporate Finance                                                                                                                                                        | 3  |
| BFIN 450                                                            | Banking                                                                                                                                                                  | 3  |
| <b>Finance Electives</b>                                            |                                                                                                                                                                          |    |
| Complete 12 credits from the following courses:                     |                                                                                                                                                                          | 12 |
| ACTG 305                                                            | Corporate Reporting I                                                                                                                                                    |    |
| ACTG 321                                                            | Accounting Information Systems I                                                                                                                                         |    |
| ACTG 410                                                            | Cost Management Accounting I                                                                                                                                             |    |
| BFIN 301                                                            | Analysis of Financial Statements                                                                                                                                         |    |
| BFIN 410                                                            | \$50,000 Portfolio                                                                                                                                                       |    |
| BFIN 421                                                            | Real Estate Investment & Analysis                                                                                                                                        |    |
| BFIN 473                                                            | Multinational Financial Mgmt                                                                                                                                             |    |
| BFIN 491                                                            | Special Topics                                                                                                                                                           |    |
| BFIN 498                                                            | Internship <sup>4</sup>                                                                                                                                                  |    |
| BMIS 326                                                            | Introduction to Data Analytics                                                                                                                                           |    |
| BMIS 479                                                            | Introduction to Consulting                                                                                                                                               |    |
| ECNS 301                                                            | Intermediate Microeconomics with Calculus                                                                                                                                |    |
| ECNS 302                                                            | Intermediate Macroeconomics                                                                                                                                              |    |
| ECNS 313                                                            | Money and Banking                                                                                                                                                        |    |
| ECNS 403                                                            | Introduction to Econometrics                                                                                                                                             |    |

**Total Hours** 75-77

<sup>1</sup> All courses must be completed with a C- or better to satisfy prerequisites for certain major, upper major core, or capstone courses. Students are advised to complete these courses as early as possible, preferably prior to attempting courses in the upper major core. Prerequisites are strictly enforced.

<sup>2</sup> All upper major core courses must be completed before the capstone can be taken.

<sup>3</sup> Students must complete all primary and secondary lower core and upper core courses and their prerequisites and have an approved graduation application to register for their capstones.

<sup>4</sup> Up to 3 credits of BFIN 498 can count towards the 12-credit elective requirement.

## Four Year Plan

| Course                                                              | Title                                                                                                     | Hours        |
|---------------------------------------------------------------------|-----------------------------------------------------------------------------------------------------------|--------------|
| <b>Freshman</b>                                                     |                                                                                                           |              |
| <b>Autumn</b>                                                       |                                                                                                           |              |
| BGEN 105S                                                           | Introduction to Business                                                                                  | 3            |
| M 115<br>or M 121<br>or M 151<br>or M 162                           | Probability and Linear Mathematics<br>or College Algebra<br>or Precalculus<br>or Applied Calculus         | 3-4          |
| WRIT 101<br>or COMX 111A                                            | College Writing I <sup>1</sup><br>or Introduction to Public Speaking                                      | 3-4          |
| General Education Requirement                                       |                                                                                                           | 6            |
| <b>Hours</b>                                                        |                                                                                                           | <b>15-17</b> |
| <b>Spring</b>                                                       |                                                                                                           |              |
| FOR 201<br>or PSYX 222<br>or SOCI 202<br>or STAT 216                | Forest Biometrics<br>or Psychological Statistics<br>or Social Statistics<br>or Introduction to Statistics | 3-4          |
| COMX 111A<br>or WRIT 101                                            | Introduction to Public Speaking <sup>1</sup><br>or College Writing I                                      | 3-4          |
| ECNS 201S                                                           | Principles of Microeconomics                                                                              | 3            |
| General Education Requirement                                       |                                                                                                           | 6            |
| <b>Hours</b>                                                        |                                                                                                           | <b>15-17</b> |
| <b>Sophomore</b>                                                    |                                                                                                           |              |
| <b>Autumn</b>                                                       |                                                                                                           |              |
| ACTG 201                                                            | Principles of Financial Accounting                                                                        | 3            |
| BGEN 222                                                            | Business Models and Operations                                                                            | 3            |
| ECNS 202S                                                           | Principles of Macroeconomics                                                                              | 3            |
| General Education Requirement                                       |                                                                                                           | 3            |
| Elective (BFIN 205S Personal Finance recommended)                   |                                                                                                           | 3            |
| <b>Hours</b>                                                        |                                                                                                           | <b>15</b>    |
| <b>Spring</b>                                                       |                                                                                                           |              |
| ACTG 202                                                            | Principles of Managerial Accounting                                                                       | 3            |
| BMIS 270                                                            | MIS Foundations for Business                                                                              | 3            |
| BGEN 220E                                                           | Business Ethics and Social Responsibility                                                                 | 3            |
| Intermediate Writing Course                                         |                                                                                                           | 3            |
| General Education Requirement                                       |                                                                                                           | 3            |
| <b>Hours</b>                                                        |                                                                                                           | <b>15</b>    |
| <b>Junior</b>                                                       |                                                                                                           |              |
| <b>Autumn</b>                                                       |                                                                                                           |              |
| BFIN 322                                                            | Business Finance                                                                                          | 3            |
| BGEN 341                                                            | People, Process and Technology I                                                                          | 3            |
| BGEN 361                                                            | Principles of Business Law                                                                                | 3            |
| Elective                                                            |                                                                                                           | 6            |
| <b>Hours</b>                                                        |                                                                                                           | <b>15</b>    |
| <b>Spring</b>                                                       |                                                                                                           |              |
| BGEN 342                                                            | People, Process and Technology II                                                                         | 3            |
| BFIN 435                                                            | Corporate Finance <sup>2</sup>                                                                            | 3            |
| BMKT 325                                                            | Principles of Marketing                                                                                   | 3            |
| FIN Elective (Fin 491 Finance Modeling & Data Analysis recommended) |                                                                                                           | 3            |
| FIN elective                                                        |                                                                                                           | 3            |
| <b>Hours</b>                                                        |                                                                                                           | <b>15</b>    |
| <b>Senior</b>                                                       |                                                                                                           |              |
| <b>Autumn</b>                                                       |                                                                                                           |              |
| BFIN 420                                                            | Investments <sup>2</sup>                                                                                  | 3            |
| BFIN 450                                                            | Banking <sup>2</sup>                                                                                      | 3            |
| FIN Elective                                                        |                                                                                                           | 3            |
| Elective (BMIS 326 Data Analytics recommended)                      |                                                                                                           | 3            |
| Elective                                                            |                                                                                                           | 3            |
| <b>Hours</b>                                                        |                                                                                                           | <b>15</b>    |
| <b>Spring</b>                                                       |                                                                                                           |              |
| BGEN 499                                                            | Strategic Management                                                                                      | 3            |

|                    |                                                            |                |
|--------------------|------------------------------------------------------------|----------------|
| BFIN 424           | Markets, Institutions & Financial Engineering <sup>2</sup> | 3              |
| FIN Elective       |                                                            | 3              |
| Elective           |                                                            | 6              |
| <b>Hours</b>       |                                                            | <b>15</b>      |
| <b>Total Hours</b> |                                                            | <b>120-124</b> |

*Last Updated Autumn 2025*

<sup>1</sup> Students with last names A-L will take WRIT 101 in Fall; Students with last names M-Z will take WRIT 101 in Spring.

<sup>2</sup> Noted courses are offered in specific semesters only - see GSSC to confirm term offered.

## Information and Control Assurance Certificate

### General Certificate Requirements

Additional requirements for graduation can be found on the Degree/ Certificate Requirements for Graduation page (p. 36).

Unless otherwise noted in individual program requirements, a minimum grade point average of 2.00 in all work attempted at the University of Montana-Missoula is required for graduation. Please see the Academic Policies and Procedures page (p. 25) for information on how your GPA is calculated.

Courses taken to satisfy the requirements of a major, minor, or certificate program must be completed with a grade of C- or better unless a higher grade is noted in the program requirements.

### Post-Secondary Certificate - Information and Control Assurance

- All students pursuing this certificate must also complete the degree requirements for one of the business majors.
- This program requires a GPA of 3.0 in the listed course requirements.

### Course Requirements

| Code                                       | Title                                                            | Hours |
|--------------------------------------------|------------------------------------------------------------------|-------|
| <b>Business Process and Control Domain</b> |                                                                  |       |
| Complete all of the following courses:     |                                                                  |       |
| ACTG 305                                   | Corporate Reporting I                                            | 3     |
| ACTG 321                                   | Accounting Information Systems I                                 | 3     |
| <b>Assurance and Analytics Domain</b>      |                                                                  |       |
| Complete all of the following courses:     |                                                                  |       |
| ACTG 411                                   | Auditing I                                                       | 3     |
| BMIS 326                                   | Introduction to Data Analytics                                   | 3     |
| <b>Professional Services Domain</b>        |                                                                  |       |
| Complete one of the following courses:     |                                                                  |       |
| ACTG 498                                   | Internship (in information/control assurance – advisor approved) | 3     |
| BMIS 476                                   | Integrated Project Management for IS                             | 3     |
| BMIS 479                                   | Introduction to Consulting                                       | 3     |
| BMIS 482                                   | Big Data Project                                                 | 3     |
| BMIS 498                                   | Internship (in information/control assurance – advisor approved) | 3     |
| <b>Expertise Domain</b>                    |                                                                  |       |

Complete one of the following courses:

3

|          |                                            |
|----------|--------------------------------------------|
| BGEN 445 | Sustainability Reporting                   |
| BMIS 365 | Business App Development                   |
| BMIS 372 | Enterprise Systems & Emerging Technologies |
| BMIS 373 | Business System Analysis & Design          |
| BMIS 471 | Fundamentals of Network & Cybersecurity    |
| BMIS 472 | Cybersecurity Management Capstone          |

**Total Hours****18**

## Management and Marketing Department

- Business Management B.S. in Business Administration (p. 130)
- Entertainment, Events, and Sports Management B.S. in Business Administration (p. 132)
- International Business B.S. in Business Administration (p. 133)
- Digital Marketing Certificate (p. 134)
- Entertainment Management Certificate (p. 134)
- Entrepreneurship and New Venture Creation Certificate (p. 135)
- Logistics & Supply Chain Management Certificate (p. 135)
- Marketing B.S. in Business Administration (p. 136)
- Sustainable Business Strategy Certificate (p. 137)

## Business Management B.S. in Business Administration

### General Degree Requirements

To earn a baccalaureate degree, all students must complete successfully, in addition to any other requirements, the University of Montana General Education Requirements. Please refer to the General Education Requirements page (p. 39) for more information.

Additional requirements for graduation can be found on the Degree/Certificate Requirements for Graduation page (p. 36).

Unless otherwise noted in individual program requirements, a minimum grade point average of 2.00 in all work attempted at the University of Montana-Missoula is required for graduation. Please see the Academic Policies and Procedures page (p. 25) for information on how your GPA is calculated.

Courses taken to satisfy the requirements of a major, minor, or certificate program must be completed with a grade of C- or better unless a higher grade is noted in the program requirements.

### Online Program Option

This program may be completed in an online format (<https://catalog.umont.edu/online-programs/definitions/>). Students interested in pursuing an online degree or certificate program are strongly encouraged to contact the offering department to discuss specific program and course modalities (<https://catalog.umont.edu/online-programs/definitions/>) and create a plan of study with an academic advisor. The course requirements listed below may not be consistently offered via online delivery.

## Bachelor of Science in Business Administration - Business Management

- At least 54 credits must be earned in business classes (ECNS, College of Business internship courses, and College of business faculty-led study abroad courses may be counted as business Classes). A minimum GPA of 2.0 is required in these courses.
- At least 27 credits in business courses must be taken at UM.
- All business credits transferred in after matriculating to UM must be pre-approved by the department chair in your major.

### Course Requirements

| Code                                                                | Title                                                                                                                                                                              | Hours |
|---------------------------------------------------------------------|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-------|
| <b>Primary Lower Core</b>                                           |                                                                                                                                                                                    |       |
| Complete all of the following courses:                              |                                                                                                                                                                                    |       |
| ACTG 201                                                            | Principles of Financial Accounting                                                                                                                                                 | 3     |
| ACTG 202                                                            | Principles of Managerial Accounting                                                                                                                                                | 3     |
| BGEN 105S                                                           | Introduction to Business                                                                                                                                                           | 3     |
| BGEN 222                                                            | Business Models and Operations                                                                                                                                                     | 3     |
| BMIS 270                                                            | MIS Foundations for Business                                                                                                                                                       | 3     |
| ECNS 201S                                                           | Principles of Microeconomics                                                                                                                                                       | 3     |
| <b>Mathematics Requirement</b>                                      |                                                                                                                                                                                    |       |
| Complete one of the following courses:                              |                                                                                                                                                                                    | 3-4   |
| M 115                                                               | Probability and Linear Mathematics                                                                                                                                                 |       |
| M 121                                                               | College Algebra                                                                                                                                                                    |       |
| M 151                                                               | Precalculus                                                                                                                                                                        |       |
| M 162                                                               | Applied Calculus                                                                                                                                                                   |       |
| <b>Statistics Requirement</b>                                       |                                                                                                                                                                                    |       |
| Complete one of the following courses:                              |                                                                                                                                                                                    | 3-4   |
| FORS 201                                                            | Forest Biometrics                                                                                                                                                                  |       |
| PSYX 222                                                            | Psychological Statistics                                                                                                                                                           |       |
| SOCI 202                                                            | Social Statistics                                                                                                                                                                  |       |
| STAT 216                                                            | Introduction to Statistics (preferred)                                                                                                                                             |       |
| <b>Secondary Lower Core Courses <sup>1</sup></b>                    |                                                                                                                                                                                    |       |
| Complete all of the following courses:                              |                                                                                                                                                                                    |       |
| BGEN 220E                                                           | Business Ethics and Social Responsibility (Students must complete this course with a C- or better prior to taking the capstone, though earlier completion is strongly encouraged.) | 3     |
| COMX 111A                                                           | Introduction to Public Speaking (Students must complete this course with a C- or better prior to taking the capstone, though earlier completion is strongly encouraged.)           | 3     |
| ECNS 202S                                                           | Principles of Macroeconomics                                                                                                                                                       | 3     |
| <b>Upper Major Core Courses <sup>2</sup></b>                        |                                                                                                                                                                                    |       |
| Complete all of the following courses:                              |                                                                                                                                                                                    |       |
| BFIN 322                                                            | Business Finance                                                                                                                                                                   | 3     |
| BGEN 341                                                            | People, Process and Technology I                                                                                                                                                   | 3     |
| BGEN 342                                                            | People, Process and Technology II                                                                                                                                                  | 3     |
| BGEN 361                                                            | Principles of Business Law                                                                                                                                                         | 3     |
| BMKT 325                                                            | Principles of Marketing                                                                                                                                                            | 3     |
| <b>Capstone and Upper-Division Writing Requirement <sup>3</sup></b> |                                                                                                                                                                                    |       |
| Complete the following course:                                      |                                                                                                                                                                                    |       |



|                                                 |                                                   |              |
|-------------------------------------------------|---------------------------------------------------|--------------|
| BGEN 499                                        | Strategic Management                              | 3            |
| <b>Business Management Required Courses</b>     |                                                   |              |
| Complete all of the following courses:          |                                                   |              |
| BGEN 360                                        | International Business                            | 3            |
| BMGT 420                                        | Leadership and Motivation                         | 3            |
| BMGT 444                                        | Leading Teams & Conflict Management               | 3            |
| BMGT 448                                        | Entrepreneurship                                  | 3            |
| <b>Business Management Electives</b>            |                                                   |              |
| Complete 12 credits from the following courses: |                                                   | 12           |
| BGEN 445                                        | Sustainability Reporting                          |              |
| BMGT 329                                        | Human Resource Management                         |              |
| BMGT 402                                        | Principles of Entertainment & Sport Business      |              |
| BMGT 403                                        | Advanced Topics in Entertainment & Sport Business |              |
| BMGT 410                                        | Sustainable Business Practices                    |              |
| BMGT 458                                        | Advanced Entrepreneurship (up to 3 credits)       |              |
| BMGT 467                                        | Global Operations and Supply Chain Management     |              |
| BMGT 480                                        | Cross-Cultural Management                         |              |
| BMGT 491                                        | Special Topics (up to 6 credits)                  |              |
| BMGT 493                                        | International Experience (up to 6 credits)        |              |
| BMGT 494                                        | Seminar/Workshop (up to 6 credits)                |              |
| BMGT 498                                        | Internship (up to 3 credits)                      |              |
| BMIS 326                                        | Introduction to Data Analytics                    |              |
| <b>Total Hours</b>                              |                                                   | <b>75-77</b> |

<sup>1</sup> All courses must be completed with a C- or better to satisfy prerequisites for certain major, upper major core, or capstone courses. Students are advised to complete these courses as early as possible, preferably prior to attempting courses in the upper major core. Prerequisites are strictly enforced.

<sup>2</sup> All upper major core courses must be completed before the capstone can be taken.

<sup>3</sup> Students must complete all primary and secondary lower core and upper core courses and their prerequisites and have an approved graduation application to register for their capstones.

## Four Year Plan

| Course                        | Title                              | Hours        |
|-------------------------------|------------------------------------|--------------|
| <b>Freshman</b>               |                                    |              |
| <b>Autumn</b>                 |                                    |              |
| BGEN 105S                     | Introduction to Business           | 3            |
| M 115                         | Probability and Linear Mathematics | 3-4          |
| or M 121                      | or College Algebra                 |              |
| or M 151                      | or Precalculus                     |              |
| or M 162                      | or Applied Calculus                |              |
| WRIT 101                      | College Writing I <sup>1</sup>     | 3-4          |
| or COMX 111A                  | or Introduction to Public Speaking |              |
| General Education Requirement |                                    | 6            |
| <b>Hours</b>                  |                                    | <b>15-17</b> |
| <b>Spring</b>                 |                                    |              |
| FORS 201                      | Forest Biometrics                  | 3-4          |
| or PSYX 222                   | or Psychological Statistics        |              |
| or SOCI 202                   | or Social Statistics               |              |
| or STAT 216                   | or Introduction to Statistics      |              |

|                               |                                              |                |
|-------------------------------|----------------------------------------------|----------------|
| COMX 111A                     | Introduction to Public Speaking <sup>1</sup> | 3-4            |
| or WRIT 101                   | or College Writing I                         |                |
| ECNS 201S                     | Principles of Microeconomics                 | 3              |
| General Education Requirement |                                              | 6              |
| <b>Hours</b>                  |                                              | <b>15-17</b>   |
| <b>Sophomore</b>              |                                              |                |
| <b>Autumn</b>                 |                                              |                |
| ACTG 201                      | Principles of Financial Accounting           | 3              |
| BGEN 222                      | Business Models and Operations               | 3              |
| ECNS 202S                     | Principles of Macroeconomics                 | 3              |
| General Education Requirement |                                              | 3              |
| Elective                      |                                              | 3              |
| <b>Hours</b>                  |                                              | <b>15</b>      |
| <b>Spring</b>                 |                                              |                |
| ACTG 202                      | Principles of Managerial Accounting          | 3              |
| BMIS 270                      | MIS Foundations for Business                 | 3              |
| BGEN 220E                     | Business Ethics and Social Responsibility    | 3              |
| Intermediate Writing Course   |                                              | 3              |
| General Education Requirement |                                              | 3              |
| <b>Hours</b>                  |                                              | <b>15</b>      |
| <b>Junior</b>                 |                                              |                |
| <b>Autumn</b>                 |                                              |                |
| BMGT 448                      | Entrepreneurship                             | 3              |
| BGEN 341                      | People, Process and Technology I             | 3              |
| BGEN 360                      | International Business                       | 3              |
| BMKT 325                      | Principles of Marketing                      | 3              |
| Elective                      |                                              | 3              |
| <b>Hours</b>                  |                                              | <b>15</b>      |
| <b>Spring</b>                 |                                              |                |
| BFIN 322                      | Business Finance                             | 3              |
| BGEN 342                      | People, Process and Technology II            | 3              |
| BMGT Elective <sup>3</sup>    |                                              | 3              |
| BMGT Elective <sup>3</sup>    |                                              | 3              |
| Elective                      |                                              | 3              |
| <b>Hours</b>                  |                                              | <b>15</b>      |
| <b>Senior</b>                 |                                              |                |
| <b>Autumn</b>                 |                                              |                |
| BMGT 420                      | Leadership and Motivation                    | 3              |
| BGEN 361                      | Principles of Business Law                   | 3              |
| BMGT Elective <sup>3</sup>    |                                              | 3              |
| Elective                      |                                              | 6              |
| <b>Hours</b>                  |                                              | <b>15</b>      |
| <b>Spring</b>                 |                                              |                |
| BGEN 499                      | Strategic Management                         | 3              |
| BMGT 444                      | Leading Teams & Conflict Management          | 3              |
| BMGT Elective <sup>3</sup>    |                                              | 3              |
| Elective                      |                                              | 6              |
| <b>Hours</b>                  |                                              | <b>15</b>      |
| <b>Total Hours</b>            |                                              | <b>120-124</b> |

*Last Updated Autumn 2025*

<sup>1</sup> Students with last names A-L will take WRIT 101 in Fall; Students with last names M-Z will take WRIT 101 in Spring.

<sup>2</sup> Noted courses are offered in specific semesters only - see GSSC to confirm term offered.

<sup>3</sup> Speak with a COB advisor regarding Business Management tracks

# Entertainment, Events, and Sports Management B.S. in Business Administration

The Entertainment, Event, and Sport Management (EESM) program is an interdisciplinary degree program grounded in a comprehensive, business-focused foundation. The program focuses on the future and evolution of entertainment, event, and sport management. Students in this program will gain real-world experience from industry experts. The program emphasizes employability through inclusive community engagement and ethical technology and business practices. Students, excellence, and innovation are the guiding priorities of this program.

## General Degree Requirements

To earn a baccalaureate degree, all students must complete successfully, in addition to any other requirements, the University of Montana General Education Requirements. Please refer to the General Education Requirements page (p. 39) for more information.

Additional requirements for graduation can be found on the Degree/Certificate Requirements for Graduation page (p. 36).

Unless otherwise noted in individual program requirements, a minimum grade point average of 2.00 in all work attempted at the University of Montana-Missoula is required for graduation. Please see the Academic Policies and Procedures page (p. 25) for information on how your GPA is calculated.

Courses taken to satisfy the requirements of a major, minor, or certificate program must be completed with a grade of C- or better unless a higher grade is noted in the program requirements.

## Bachelor of Science in Business Administration - Entertainment, Events, and Sports Management

- At least 54 credits must be earned in business classes (ECNS, College of Business internship courses, and College of business faculty-led study abroad courses may be counted as business Classes). A minimum GPA of 2.0 is required in these courses.
- At least 27 credits in business courses must be taken at UM.
- All business credits transferred in after matriculating to UM must be pre-approved by the department chair in your major.

### Course Requirements

| Code                                   | Title                               | Hours |
|----------------------------------------|-------------------------------------|-------|
| <b>Primary Lower Core</b>              |                                     |       |
| Complete all of the following courses: |                                     |       |
| ACTG 201                               | Principles of Financial Accounting  | 3     |
| ACTG 202                               | Principles of Managerial Accounting | 3     |
| BGEN 105S                              | Introduction to Business            | 3     |
| BGEN 222                               | Business Models and Operations      | 3     |
| BMIS 270                               | MIS Foundations for Business        | 3     |
| ECNS 201S                              | Principles of Microeconomics        | 3     |
| <b>Mathematics Requirement</b>         |                                     |       |
| Complete one of the following courses: |                                     |       |
| M 115                                  | Probability and Linear Mathematics  | 3-4   |

|                                                                         |                                                                                                                                                                                    |     |
|-------------------------------------------------------------------------|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-----|
| M 121                                                                   | College Algebra                                                                                                                                                                    |     |
| M 151                                                                   | Precalculus                                                                                                                                                                        |     |
| M 162                                                                   | Applied Calculus                                                                                                                                                                   |     |
| <b>Statistics Requirement <sup>1</sup></b>                              |                                                                                                                                                                                    |     |
| Complete one of the following courses:                                  |                                                                                                                                                                                    |     |
| FORS 201                                                                | Forest Biometrics                                                                                                                                                                  | 3-4 |
| PSYX 222                                                                | Psychological Statistics                                                                                                                                                           |     |
| SOCI 202                                                                | Social Statistics                                                                                                                                                                  |     |
| STAT 216                                                                | Introduction to Statistics                                                                                                                                                         |     |
| <b>Secondary Lower Core Courses <sup>2</sup></b>                        |                                                                                                                                                                                    |     |
| Complete all of the following courses:                                  |                                                                                                                                                                                    |     |
| BGEN 220E                                                               | Business Ethics and Social Responsibility (Students must complete this course with a C- or better prior to taking the capstone, though earlier completion is strongly encouraged.) | 3   |
| COMX 111A                                                               | Introduction to Public Speaking (Students must complete this course with a C- or better prior to taking the capstone, though earlier completion is strongly encouraged.)           | 3   |
| ECNS 202S                                                               | Principles of Macroeconomics                                                                                                                                                       | 3   |
| <b>Upper Major Core Courses <sup>3</sup></b>                            |                                                                                                                                                                                    |     |
| Complete all of the following courses:                                  |                                                                                                                                                                                    |     |
| BFIN 322                                                                | Business Finance                                                                                                                                                                   | 3   |
| BGEN 341                                                                | People, Process and Technology I                                                                                                                                                   | 3   |
| BGEN 342                                                                | People, Process and Technology II                                                                                                                                                  | 3   |
| BGEN 361                                                                | Principles of Business Law                                                                                                                                                         | 3   |
| BMKT 325                                                                | Principles of Marketing                                                                                                                                                            | 3   |
| <b>Capstone and Writing in the Disciplines Requirement <sup>4</sup></b> |                                                                                                                                                                                    |     |
| Complete the following course:                                          |                                                                                                                                                                                    |     |
| BGEN 499                                                                | Strategic Management                                                                                                                                                               | 3   |
| <b>Entertainment, Events, and Sports Management Required Courses</b>    |                                                                                                                                                                                    |     |
| Complete all of the following courses:                                  |                                                                                                                                                                                    |     |
| BGEN 310                                                                | Professional Sales, Relationship Management & Business Development                                                                                                                 | 3   |
| BMGT 301                                                                | Entertainment & Sport Facility Management                                                                                                                                          | 3   |
| BMGT 401                                                                | Entertainment and Sports Event Management                                                                                                                                          | 3   |
| BMGT 402                                                                | Principles of Entertainment & Sport Business                                                                                                                                       | 3   |
| BMGT 403                                                                | Advanced Topics in Entertainment & Sport Business                                                                                                                                  | 3   |
| BMIS 326                                                                | Introduction to Data Analytics                                                                                                                                                     | 3   |
| <b>Entertainment, Events, and Sports Management Electives</b>           |                                                                                                                                                                                    |     |
| Complete 6 credits of the following courses:                            |                                                                                                                                                                                    |     |
| BMGT 444                                                                | Leading Teams & Conflict Management                                                                                                                                                | 6   |
| BMGT 498                                                                | Internship                                                                                                                                                                         |     |
| BMIS 372                                                                | Enterprise Systems & Emerging Technologies                                                                                                                                         |     |
| BMKT 337                                                                | Consumer Behavior                                                                                                                                                                  |     |
| BMKT 413                                                                | Sports Marketing                                                                                                                                                                   |     |
| BMKT 420                                                                | Integrated Online Marketing                                                                                                                                                        |     |

|          |                                        |
|----------|----------------------------------------|
| BMKT 440 | Marketing Analytics                    |
| COA 405  | Advanced Concepts in Coaching          |
| COMX 351 | Principles of Public Relations         |
| COMX 424 | Risk, Crisis, and Communication        |
| ECNS 325 | Economics of Sports                    |
| MART 436 | Producing                              |
| PTRM 380 | Recreation Administration & Leadership |

**Total Hours****75-77**

- <sup>1</sup> This is a primary lower core requirement. The College of Business requires that credit be earned for STAT 216 (preferred) or one of the other statistics courses below with a C- or better prior to being admitted into an upper-division College of Business major.
- <sup>2</sup> All courses must be completed with a C- or better to satisfy prerequisites for certain major, upper major core, or capstone courses. Students are advised to complete these courses prior to being admitted to an upper-division Business Major. Prerequisites are strictly enforced.
- <sup>3</sup> All upper major core courses must be completed before the capstone can be taken. A student must be listed as a major or minor in business to take these courses. Major or minor in business is defined as junior standing with all primary lower core courses completed, a 2.0 cumulative GPA, and formal admission to the major or minor.
- <sup>4</sup> Students must complete all primary and secondary lower core and upper core courses and their prerequisites and have an approved graduation application to register for their capstones. Students must pass the required comprehensive exam as well as all requisite coursework to earn a passing grade in BGEN 499.

## International Business B.S. in Business Administration

### General Degree Requirements

To earn a baccalaureate degree, all students must complete successfully, in addition to any other requirements, the University of Montana General Education Requirements. Please refer to the General Education Requirements page (p. 39) for more information.

Additional requirements for graduation can be found on the Degree/Certificate Requirements for Graduation page (p. 36).

Unless otherwise noted in individual program requirements, a minimum grade point average of 2.00 in all work attempted at the University of Montana-Missoula is required for graduation. Please see the Academic Policies and Procedures page (p. 25) for information on how your GPA is calculated.

Courses taken to satisfy the requirements of a major, minor, or certificate program must be completed with a grade of C- or better unless a higher grade is noted in the program requirements.

### Bachelor of Science in Business Administration - International Business

- At least 54 credits must be earned in business classes (ECNS, COB internship courses and COB faculty-led study abroad courses may be counted as business classes). A minimum GPA of 2.0 is required for these courses.

- At least 27 credits in business must be taken at UM.
- All business credits transferred in after matriculating to UM must be pre-approved by the department chair in your major.
- In addition to the below requirements, students seeking a major in International Business must complete all degree requirements for a major in Accounting (p. 126), Finance (p. 127), Business Management (p. 130), Management Information Systems (p. 138), or Marketing (p. 136).

### Course Requirements

| Code                                                                | Title                                                                                                                                                                              | Hours |
|---------------------------------------------------------------------|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-------|
| <b>Primary Lower Core</b>                                           |                                                                                                                                                                                    |       |
| Complete all of the following courses:                              |                                                                                                                                                                                    |       |
| ACTG 201                                                            | Principles of Financial Accounting                                                                                                                                                 | 3     |
| ACTG 202                                                            | Principles of Managerial Accounting                                                                                                                                                | 3     |
| BGEN 105S                                                           | Introduction to Business                                                                                                                                                           | 3     |
| BGEN 222                                                            | Business Models and Operations                                                                                                                                                     | 3     |
| BMIS 270                                                            | MIS Foundations for Business                                                                                                                                                       | 3     |
| ECNS 201S                                                           | Principles of Microeconomics                                                                                                                                                       | 3     |
| <b>Mathematics Requirement</b>                                      |                                                                                                                                                                                    |       |
| Complete one of the following courses:                              |                                                                                                                                                                                    | 3-4   |
| M 115                                                               | Probability and Linear Mathematics                                                                                                                                                 |       |
| M 121                                                               | College Algebra                                                                                                                                                                    |       |
| M 151                                                               | Precalculus                                                                                                                                                                        |       |
| M 162                                                               | Applied Calculus                                                                                                                                                                   |       |
| <b>Statistics Requirement</b>                                       |                                                                                                                                                                                    |       |
| Complete one of the following courses:                              |                                                                                                                                                                                    | 3-4   |
| FORS 201                                                            | Forest Biometrics                                                                                                                                                                  |       |
| PSYX 222                                                            | Psychological Statistics                                                                                                                                                           |       |
| SOCI 202                                                            | Social Statistics                                                                                                                                                                  |       |
| STAT 216                                                            | Introduction to Statistics (preferred)                                                                                                                                             |       |
| <b>Secondary Lower Core Courses <sup>1</sup></b>                    |                                                                                                                                                                                    |       |
| Complete all of the following courses:                              |                                                                                                                                                                                    |       |
| BGEN 220E                                                           | Business Ethics and Social Responsibility (Students must complete this course with a C- or better prior to taking the capstone, though earlier completion is strongly encouraged.) | 3     |
| COMX 111A                                                           | Introduction to Public Speaking (Students must complete this course with a C- or better prior to taking the capstone, though earlier completion is strongly encouraged.)           | 3     |
| ECNS 202S                                                           | Principles of Macroeconomics                                                                                                                                                       | 3     |
| <b>Upper Major Core Courses <sup>2</sup></b>                        |                                                                                                                                                                                    |       |
| Complete all of the following courses:                              |                                                                                                                                                                                    |       |
| BFIN 322                                                            | Business Finance                                                                                                                                                                   | 3     |
| BGEN 341                                                            | People, Process and Technology I                                                                                                                                                   | 3     |
| BGEN 342                                                            | People, Process and Technology II                                                                                                                                                  | 3     |
| BGEN 361                                                            | Principles of Business Law                                                                                                                                                         | 3     |
| BMKT 325                                                            | Principles of Marketing                                                                                                                                                            | 3     |
| <b>Capstone and Upper-Division Writing Requirement <sup>3</sup></b> |                                                                                                                                                                                    |       |
| Complete the following course:                                      |                                                                                                                                                                                    |       |
| BGEN 499                                                            | Strategic Management                                                                                                                                                               | 3     |
| <b>International Business Required Courses</b>                      |                                                                                                                                                                                    |       |

Complete all of the following courses:

|          |                                               |   |
|----------|-----------------------------------------------|---|
| BFIN 473 | Multinational Financial Mgmt                  | 3 |
| BGEN 360 | International Business                        | 3 |
| BMGT 467 | Global Operations and Supply Chain Management | 3 |
| BMGT 480 | Cross-Cultural Management                     | 3 |

#### Language Requirement <sup>4</sup>

Complete the 202 level or equivalent in a modern or classical language. 4-16

#### Electives

Complete 6 credits in courses chosen in consultation with your advisor. 6

**Total Hours** **73-87**

<sup>1</sup> All courses must be completed with a C- or better to satisfy prerequisites for certain major, upper major core, or capstone courses. Students are advised to complete these courses as early as possible, preferably prior to attempting courses in the upper major core. Prerequisites are strictly enforced.

<sup>2</sup> All upper major core courses must be completed before the capstone can be taken.

<sup>3</sup> Students must complete all primary and secondary lower core and upper core courses and their prerequisites and have an approved graduation application to register for their capstones.

<sup>4</sup> A student may be exempt from this requirement if using English as a second language or another language not offered by the University of Montana. Please see the International Business advisor for assistance.

## Digital Marketing Certificate

### General Certificate Requirements

Additional requirements for graduation can be found on the Degree/Certificate Requirements for Graduation page (p. 36).

Unless otherwise noted in individual program requirements, a minimum grade point average of 2.00 in all work attempted at the University of Montana-Missoula is required for graduation. Please see the Academic Policies and Procedures page (p. 25) for information on how your GPA is calculated.

Courses taken to satisfy the requirements of a major, minor, or certificate program must be completed with a grade of C- or better unless a higher grade is noted in the program requirements.

### Post-Secondary Certificate - Digital Marketing

- All students pursuing a Digital Marketing Certificate must also complete the degree requirements for one of the Business majors.
- This program requires a 3.0 GPA in the listed course requirements.

#### Course Requirements

| Code                                   | Title                             | Hours |
|----------------------------------------|-----------------------------------|-------|
| <b>Required Courses</b>                |                                   |       |
| Complete all of the following courses: |                                   |       |
| BMIS 326                               | Introduction to Data Analytics    | 3     |
| BMIS 373                               | Business System Analysis & Design | 3     |
| BMIS 478                               | Digital Entrepreneurship          | 3     |

|          |                                             |   |
|----------|---------------------------------------------|---|
| BMKT 342 | Marketing Research                          | 3 |
| BMKT 420 | Integrated Online Marketing                 | 3 |
| BMKT 460 | Marketing Hi-Tech Production and Innovation | 3 |

#### Electives

Complete three credits from the following courses: 3

|           |                                   |
|-----------|-----------------------------------|
| BMIS 365  | Business App Development          |
| BMIS 472  | Cybersecurity Management Capstone |
| BMIS 479  | Introduction to Consulting        |
| BMKT 482  | Telling Stories with Data         |
| CSCI 340  | Database Design                   |
| FORS 250  | Intro to GIS for Forest Mgt       |
| GPYH 284  | Intro to GIS and Cartography      |
| MART 101L | Intro to Media Arts               |
| MART 112A | Introduction to Film Editing      |
| MART 341  | Introduction to Web Design        |

**Total Hours** **21**

## Entertainment Management Certificate

### General Certificate Requirements

Additional requirements for graduation can be found on the Degree/Certificate Requirements for Graduation page (p. 36).

Unless otherwise noted in individual program requirements, a minimum grade point average of 2.00 in all work attempted at the University of Montana-Missoula is required for graduation. Please see the Academic Policies and Procedures page (p. 25) for information on how your GPA is calculated.

Courses taken to satisfy the requirements of a major, minor, or certificate program must be completed with a grade of C- or better unless a higher grade is noted in the program requirements.

### Post-Secondary Certificate - Entertainment Management

- This certificate is open to all majors across campus; however, many courses have business prerequisites.
- This program requires a 3.0 GPA in the listed course requirements.
- A minimum grade of B is required for all certificate courses.
- Special Topics courses (x91) and a maximum of three internship credits (x98) may count towards Certificate electives if approved by the UMEM Program Director.

#### Course Requirements

| Code                                   | Title                                             | Hours |
|----------------------------------------|---------------------------------------------------|-------|
| <b>Required Courses</b>                |                                                   |       |
| Complete all of the following courses: |                                                   |       |
| BMGT 401                               | Entertainment and Sports Event Management         | 3     |
| BMGT 402                               | Principles of Entertainment & Sport Business      | 3     |
| BMGT 403                               | Advanced Topics in Entertainment & Sport Business | 3     |

**Electives**

Complete nine credits from the following courses. At least one course must be taken outside of the College of Business. 9

|          |                                           |
|----------|-------------------------------------------|
| BMGT 301 | Entertainment & Sport Facility Management |
| BMGT 498 | Internship                                |
| BMKT 413 | Sports Marketing                          |
| COA 405  | Advanced Concepts in Coaching             |
| COMX 351 | Principles of Public Relations            |
| COMX 370 | Relationships and the Brain               |
| COMX 424 | Risk, Crisis, and Communication           |
| ECNS 320 | Public Finance                            |
| ECNS 325 | Economics of Sports                       |
| MART 245 | Sound Production & Design Fundamentals    |
| MART 436 | Producing                                 |
| PTRM 380 | Recreation Administration & Leadership    |
| THTR 202 | Stagecraft I                              |

**Total Hours** 18

## Entrepreneurship and New Venture Creation Certificate

### General Certificate Requirements

Additional requirements for graduation can be found on the Degree/Certificate Requirements for Graduation page (p. 36).

Unless otherwise noted in individual program requirements, a minimum grade point average of 2.00 in all work attempted at the University of Montana-Missoula is required for graduation. Please see the Academic Policies and Procedures page (p. 25) for information on how your GPA is calculated.

Courses taken to satisfy the requirements of a major, minor, or certificate program must be completed with a grade of C- or better unless a higher grade is noted in the program requirements.

### Post-Secondary Certificate - Entrepreneurship and New Venture Creation

- All student pursuing a Certificate in Entrepreneurship and New Venture Creation must also complete the degree requirements for one of the Business majors. This certificate is of particular interest to students interested in launching their own business venture, working for a startup, or launching new initiatives with more established businesses.

#### Course Requirements

| Code                                   | Title                     | Hours |
|----------------------------------------|---------------------------|-------|
| <b>Required Courses</b>                |                           |       |
| Complete all of the following courses: |                           |       |
| BMGT 448                               | Entrepreneurship          | 3     |
| BMGT 458                               | Advanced Entrepreneurship | 1-2   |

|          |                                                                                                                                                                                           |   |
|----------|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|---|
| BMGT 498 | Internship (or submit a written new venture idea for adjudication to the John Ruffatto Business Startup Challenge (BSC), be selected for participation and present their idea at the BSC) | 3 |
|----------|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|---|

**Electives**

Complete two of the following courses: 6

|          |                                                    |
|----------|----------------------------------------------------|
| BFIN 301 | Analysis of Financial Statements                   |
| BMGT 420 | Leadership and Motivation                          |
| BMGT 498 | Internship (with an Entrepreneurship focus)        |
| BMIS 372 | Enterprise Systems & Emerging Technologies         |
| BMIS 373 | Business System Analysis & Design                  |
| BMIS 478 | Digital Entrepreneurship                           |
| BMKT 342 | Marketing Research                                 |
| BMKT 420 | Integrated Online Marketing                        |
| BMKT 460 | Marketing Hi-Tech Production and Innovation        |
| BMGT 492 | Independent Study (with an Entrepreneurship Focus) |

**Total Hours** 13-14

## Logistics & Supply Chain Management Certificate

The Logistics and Supply Chain Management (LSCM) certificate equips students with essential skills for mission-critical roles across various industries, including e-commerce, manufacturing, and retail. This program prepares students for internships and careers in global logistics, transportation, distribution, procurement, inventory planning, supply chain analysis, management, and consulting while also fostering awareness of the diverse opportunities within these fields.

### General Certificate Requirements

Additional requirements for graduation can be found on the Degree/Certificate Requirements for Graduation page (p. 36).

Unless otherwise noted in individual program requirements, a minimum grade point average of 2.00 in all work attempted at the University of Montana-Missoula is required for graduation. Please see the Academic Policies and Procedures page (p. 25) for information on how your GPA is calculated.

Courses taken to satisfy the requirements of a major, minor, or certificate program must be completed with a grade of C- or better unless a higher grade is noted in the program requirements.

### Post Secondary Certificate - Logistics & Supply Chain Management Course Requirements

| Code                                   | Title                                         | Hours |
|----------------------------------------|-----------------------------------------------|-------|
| Complete all of the following courses: |                                               |       |
| BGEN 222                               | Business Models and Operations                | 3     |
| BMKT 451                               | Logistics and Transportation                  | 3     |
| BMGT 467                               | Global Operations and Supply Chain Management | 3     |



|                                        |                                                                    |           |
|----------------------------------------|--------------------------------------------------------------------|-----------|
| Complete two of the following courses: |                                                                    | 6         |
| BFIN 435                               | Corporate Finance                                                  |           |
| BGEN 310                               | Professional Sales, Relationship Management & Business Development |           |
| BMGT 410                               | Sustainable Business Practices                                     |           |
| BMGT 498                               | Internship                                                         |           |
| BMIS 326                               | Introduction to Data Analytics                                     |           |
| BMIS 373                               | Business System Analysis & Design                                  |           |
| BMIS 478                               | Digital Entrepreneurship                                           |           |
| <b>Total Hours</b>                     |                                                                    | <b>15</b> |

## Marketing B.S. in Business Administration

The marketing major provides students with knowledge and skills required for the process of marketing products, services, or ideas. The contemporary role of marketing in society is treated from various perspectives, including functional and institutional analysis, as well as the application of decision-making tools.

## General Degree Requirements

To earn a baccalaureate degree, all students must complete successfully, in addition to any other requirements, the University of Montana General Education Requirements. Please refer to the General Education Requirements page (p. 39) for more information.

Additional requirements for graduation can be found on the Degree/Certificate Requirements for Graduation page (p. 36).

Unless otherwise noted in individual program requirements, a minimum grade point average of 2.00 in all work attempted at the University of Montana-Missoula is required for graduation. Please see the Academic Policies and Procedures page (p. 25) for information on how your GPA is calculated.

Courses taken to satisfy the requirements of a major, minor, or certificate program must be completed with a grade of C- or better unless a higher grade is noted in the program requirements.

## Bachelor of Science in Business Administration - Marketing

- At least 54 credits must be earned in business classes (ECNS, College of Business internship courses, and College of Business faculty-led study abroad courses may be counted as business Classes). A minimum GPA of 2.0 is required in these courses.
- At least 27 credits in business courses must be taken at UM.
- All business credits transferred in after matriculating to UM must be pre-approved by the department chair in your major.

### Course Requirements

| Code                                   | Title                               | Hours |
|----------------------------------------|-------------------------------------|-------|
| <b>Primary Lower Core</b>              |                                     |       |
| Complete all of the following courses: |                                     |       |
| ACTG 201                               | Principles of Financial Accounting  | 3     |
| ACTG 202                               | Principles of Managerial Accounting | 3     |
| BGEN 105S                              | Introduction to Business            | 3     |
| BGEN 222                               | Business Models and Operations      | 3     |

|           |                              |   |
|-----------|------------------------------|---|
| BMIS 270  | MIS Foundations for Business | 3 |
| ECNS 201S | Principles of Microeconomics | 3 |

### Mathematics Requirement

|                                        |                                    |     |
|----------------------------------------|------------------------------------|-----|
| Complete one of the following courses: |                                    | 3-4 |
| M 115                                  | Probability and Linear Mathematics |     |
| M 121                                  | College Algebra                    |     |
| M 151                                  | Precalculus                        |     |
| M 162                                  | Applied Calculus                   |     |

### Statistics Requirement

|                                        |                                        |     |
|----------------------------------------|----------------------------------------|-----|
| Complete one of the following courses: |                                        | 3-4 |
| FORS 201                               | Forest Biometrics                      |     |
| PSYX 222                               | Psychological Statistics               |     |
| SOCI 202                               | Social Statistics                      |     |
| STAT 216                               | Introduction to Statistics (preferred) |     |

### Secondary Lower Core Courses <sup>1</sup>

|                                        |                                                                                                                                                                                    |   |
|----------------------------------------|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|---|
| Complete all of the following courses: |                                                                                                                                                                                    |   |
| BGEN 220E                              | Business Ethics and Social Responsibility (Students must complete this course with a C- or better prior to taking the capstone, though earlier completion is strongly encouraged.) | 3 |
| COMX 111A                              | Introduction to Public Speaking (Students must complete this course with a C- or better prior to taking the capstone, though earlier completion is strongly encouraged.)           | 3 |
| ECNS 202S                              | Principles of Macroeconomics                                                                                                                                                       | 3 |

### Upper Major Core Courses <sup>2</sup>

|                                        |                                   |   |
|----------------------------------------|-----------------------------------|---|
| Complete all of the following courses: |                                   |   |
| BFIN 322                               | Business Finance                  | 3 |
| BGEN 341                               | People, Process and Technology I  | 3 |
| BGEN 342                               | People, Process and Technology II | 3 |
| BGEN 361                               | Principles of Business Law        | 3 |
| BMKT 325                               | Principles of Marketing           | 3 |

### Capstone and Upper-Division Writing Requirement <sup>3</sup>

|                                |                      |   |
|--------------------------------|----------------------|---|
| Complete the following course: |                      |   |
| BGEN 499                       | Strategic Management | 3 |

### Marketing Required Courses

|                                        |                             |   |
|----------------------------------------|-----------------------------|---|
| Complete all of the following courses: |                             |   |
| BGEN 360                               | International Business      | 3 |
| BMKT 337                               | Consumer Behavior           | 3 |
| BMKT 342                               | Marketing Research          | 3 |
| BMKT 420                               | Integrated Online Marketing | 3 |

### Electives

|                                                        |                                             |   |
|--------------------------------------------------------|---------------------------------------------|---|
| Complete 6 credits of the following technical courses: |                                             | 6 |
| BMIS 326                                               | Introduction to Data Analytics              |   |
| BMKT 440                                               | Marketing Analytics                         |   |
| BMKT 460                                               | Marketing Hi-Tech Production and Innovation |   |
| BMKT 482                                               | Telling Stories with Data                   |   |
| BMKT 483                                               | Digital Media Execution                     |   |
| BMKT 491                                               | Special Topics                              |   |
| Complete 6 credits of the following breadth courses:   |                                             | 6 |
| BGEN 445                                               | Sustainability Reporting                    |   |

|             |                                                   |       |
|-------------|---------------------------------------------------|-------|
| BMGT 401    | Entertainment and Sports Event Management         |       |
| BMGT 402    | Principles of Entertainment & Sport Business      |       |
| BMGT 403    | Advanced Topics in Entertainment & Sport Business |       |
| BMGT 410    | Sustainable Business Practices                    |       |
| BMGT 467    | Global Operations and Supply Chain Management     |       |
| BMGT 493    | International Experience                          |       |
| BMGT 494    | Seminar/Workshop                                  |       |
| BMGT 498    | Internship                                        |       |
| BMKT 413    | Sports Marketing                                  |       |
| COMX 351    | Principles of Public Relations                    |       |
| COMX 352    | Public Relations Portfolio                        |       |
| MART 341    | Introduction to Web Design                        |       |
| MART 441    | Browser-based Games                               |       |
| Total Hours |                                                   | 75-77 |

<sup>1</sup> All courses must be completed with a C- or better to satisfy prerequisites for certain major, upper major core, or capstone courses. Students are advised to complete these courses as early as possible, preferably prior to attempting courses in the upper major core. Prerequisites are strictly enforced.

<sup>2</sup> All upper major core courses must be completed before the capstone can be taken.

<sup>3</sup> Students must complete all primary and secondary lower core and upper core courses and their prerequisites and have an approved graduation application to register for their capstones.

## Four Year Plan

| Course                        | Title                                        | Hours        |
|-------------------------------|----------------------------------------------|--------------|
| <b>Freshman</b>               |                                              |              |
| <b>Autumn</b>                 |                                              |              |
| BGEN 105S                     | Introduction to Business                     | 3            |
| M 115                         | Probability and Linear Mathematics           | 3-4          |
| or M 121                      | or College Algebra                           |              |
| or M 151                      | or Precalculus                               |              |
| or M 162                      | or Applied Calculus                          |              |
| WRIT 101                      | College Writing I <sup>1</sup>               | 3-4          |
| or COMX 111A                  | or Introduction to Public Speaking           |              |
| General Education Requirement |                                              | 6            |
| <b>Hours</b>                  |                                              | <b>15-17</b> |
| <b>Spring</b>                 |                                              |              |
| FORS 201                      | Forest Biometrics                            | 3-4          |
| or PSYX 222                   | or Psychological Statistics                  |              |
| or SOCI 202                   | or Social Statistics                         |              |
| or STAT 216                   | or Introduction to Statistics                |              |
| COMX 111A                     | Introduction to Public Speaking <sup>1</sup> | 3-4          |
| or WRIT 101                   | or College Writing I                         |              |
| ECNS 201S                     | Principles of Microeconomics                 | 3            |
| General Education Requirement |                                              | 6            |
| <b>Hours</b>                  |                                              | <b>15-17</b> |
| <b>Sophomore</b>              |                                              |              |
| <b>Autumn</b>                 |                                              |              |
| ACTG 201                      | Principles of Financial Accounting           | 3            |
| BGEN 222                      | Business Models and Operations               | 3            |
| ECNS 202S                     | Principles of Macroeconomics                 | 3            |
| General Education Requirement |                                              | 3            |

|                                  |                                                |                |
|----------------------------------|------------------------------------------------|----------------|
| Elective                         |                                                | 3              |
| <b>Hours</b>                     |                                                | <b>15</b>      |
| <b>Spring</b>                    |                                                |                |
| ACTG 202                         | Principles of Managerial Accounting            | 3              |
| BMIS 270                         | MIS Foundations for Business                   | 3              |
| BGEN 220E                        | Business Ethics and Social Responsibility      | 3              |
| Intermediate Writing Course      |                                                | 3              |
| General Education Requirement    |                                                | 3              |
| <b>Hours</b>                     |                                                | <b>15</b>      |
| <b>Junior</b>                    |                                                |                |
| <b>Autumn</b>                    |                                                |                |
| BGEN 341                         | People, Process and Technology I               | 3              |
| BMKT 325                         | Principles of Marketing                        | 3              |
| BGEN 360                         | International Business                         | 3              |
| MKTG Elective                    |                                                | 3              |
| Elective                         |                                                | 3              |
| <b>Hours</b>                     |                                                | <b>15</b>      |
| <b>Spring</b>                    |                                                |                |
| BFIN 322                         | Business Finance                               | 3              |
| BGEN 342                         | People, Process and Technology II              | 3              |
| BMKT 337                         | Consumer Behavior <sup>2</sup>                 | 3              |
| BMKT 420                         | Integrated Online Marketing (or MKTG Elective) | 3              |
| Elective                         |                                                | 3              |
| <b>Hours</b>                     |                                                | <b>15</b>      |
| <b>Senior</b>                    |                                                |                |
| <b>Autumn</b>                    |                                                |                |
| BMKT 342                         | Marketing Research                             | 3              |
| BGEN 361                         | Principles of Business Law                     | 3              |
| MKTG Tech Electives <sup>3</sup> |                                                | 6              |
| Elective                         |                                                | 3              |
| <b>Hours</b>                     |                                                | <b>15</b>      |
| <b>Spring</b>                    |                                                |                |
| BGEN 499                         | Strategic Management                           | 3              |
| BMKT 420                         | Integrated Online Marketing (or MKTG Elective) | 3              |
| Elective                         |                                                | 9              |
| <b>Hours</b>                     |                                                | <b>15</b>      |
| <b>Total Hours</b>               |                                                | <b>120-124</b> |

*Last Updated Autumn 2025*

<sup>1</sup> Students with last names A-L will take WRIT 101 in Fall; Students with last names M-Z will take WRIT 101 in Spring.

<sup>2</sup> Noted courses are offered in specific semesters only - see GSSC to confirm term offered.

<sup>3</sup> Approved MKTG Tech Electives include: BMIS 326, BMKT 440, BMKT 482, BMKT 483 and BMKT 491

## Sustainable Business Strategy Certificate

### General Certificate Requirements

Additional requirements for graduation can be found on the Degree/Certificate Requirements for Graduation page (p. 36).

Unless otherwise noted in individual program requirements, a minimum grade point average of 2.00 in all work attempted at the University of Montana-Missoula is required for graduation. Please see the Academic Policies and Procedures page (p. 25) for information on how your GPA is calculated.

Courses taken to satisfy the requirements of a major, minor, or certificate program must be completed with a grade of C- or better unless a higher grade is noted in the program requirements.

## Post-Secondary Certificate - Sustainable Business Strategy

- This program requires a 3.0 GPA in the listed course requirements.

### Course Requirements

| Code                                   | Title                                             | Hours     |
|----------------------------------------|---------------------------------------------------|-----------|
| <b>Required Courses</b>                |                                                   |           |
| Complete all of the following courses: |                                                   |           |
| BGEN 445                               | Sustainability Reporting                          | 3         |
| BMGT 410                               | Sustainable Business Practices                    | 3         |
| CCS 103X                               | Introduction to Climate Change: Science & Society | 3         |
| or NRSM 281                            | Science of Climate Change                         |           |
| <b>Electives</b>                       |                                                   |           |
| Complete two of the following courses: |                                                   |           |
| BMGT 329                               | Human Resource Management                         | 6         |
| BMGT 467                               | Global Operations and Supply Chain Management     |           |
| BMGT 498                               | Internship                                        |           |
| ENST 225S                              | Sustainable Communities                           |           |
| NRSM 121S                              | Environmental Science and Sustainability          |           |
| NRSM 389E                              | Ethics and Sustainability                         |           |
| <b>Total Hours</b>                     |                                                   | <b>15</b> |

## Management Information Systems Department

- Management Information Systems B.S. in Business Administration (p. 138)
- Cybersecurity B.S. (p. 140)
- Big Data Analytics Certificate (p. 141)
- Cybersecurity Management Certificate (p. 141)

## Management Information Systems B.S. in Business Administration

The Management Information Systems STEM curriculum prepares students to manage an organization's information resources. The major focuses on:

1. analyzing and synthesizing information flows within and across the organization's business processes;
2. effectively managing the acquisition, deployment, and utilization of information systems; and
3. using both information and information technology to enhance the organization's strategic advantage.

The knowledge and skills developed in the curriculum lead to careers in data analytics, cybersecurity, consulting, application development,

infrastructure management, systems analysis, technology and design, electronic commerce, and project management.

## General Degree Requirements

To earn a baccalaureate degree, all students must complete successfully, in addition to any other requirements, the University of Montana General Education Requirements. Please refer to the General Education Requirements page (p. 39) for more information.

Additional requirements for graduation can be found on the Degree/Certificate Requirements for Graduation page (p. 36).

Unless otherwise noted in individual program requirements, a minimum grade point average of 2.00 in all work attempted at the University of Montana-Missoula is required for graduation. Please see the Academic Policies and Procedures page (p. 25) for information on how your GPA is calculated.

Courses taken to satisfy the requirements of a major, minor, or certificate program must be completed with a grade of C- or better unless a higher grade is noted in the program requirements.

## Bachelor of Science in Business Administration - Management Information Systems

- At least 54 credits must be earned in business classes (ECNS, COB internship courses and College of Business faculty-led study abroad course may be counted in or out of business). A minimum GPA of 2.0 is required for these courses.
- At least 27 credits in business and BMIS 476 must be taken at UM.
- All business credits transferred in after matriculating to UM must be pre-approved by the department chair in your major.

### Course Requirements

| Code                                             | Title                               | Hours |
|--------------------------------------------------|-------------------------------------|-------|
| <b>Primary Lower Core</b>                        |                                     |       |
| Complete all of the following courses:           |                                     |       |
| ACTG 201                                         | Principles of Financial Accounting  | 3     |
| ACTG 202                                         | Principles of Managerial Accounting | 3     |
| BGEN 105S                                        | Introduction to Business            | 3     |
| BGEN 222                                         | Business Models and Operations      | 3     |
| BMIS 270                                         | MIS Foundations for Business        | 3     |
| ECNS 201S                                        | Principles of Microeconomics        | 3     |
| <b>Mathematics Requirement</b>                   |                                     |       |
| Complete one of the following courses:           |                                     |       |
| M 115                                            | Probability and Linear Mathematics  | 3-4   |
| M 121                                            | College Algebra                     |       |
| M 151                                            | Precalculus                         |       |
| M 162                                            | Applied Calculus                    |       |
| <b>Statistics Requirement</b>                    |                                     |       |
| Complete one of the following courses:           |                                     |       |
| FORS 201                                         | Forest Biometrics                   |       |
| PSYX 222                                         | Psychological Statistics            |       |
| SOCI 202                                         | Social Statistics                   |       |
| STAT 216                                         | Introduction to Statistics          |       |
| <b>Secondary Lower Core Courses</b> <sup>1</sup> |                                     |       |

## Complete all of the following courses:

|           |                                                                                                                                                                                    |   |
|-----------|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|---|
| BGEN 220E | Business Ethics and Social Responsibility (Students must complete this course with a C- or better prior to taking the capstone, though earlier completion is strongly encouraged.) | 3 |
| COMX 111A | Introduction to Public Speaking (Students must complete this course with a C- or better prior to taking the capstone, though earlier completion is strongly encouraged.)           | 3 |
| ECNS 202S | Principles of Macroeconomics                                                                                                                                                       | 3 |

**Upper Major Core Courses** <sup>2</sup>

## Complete all of the following courses:

|          |                                   |   |
|----------|-----------------------------------|---|
| BFIN 322 | Business Finance                  | 3 |
| BGEN 341 | People, Process and Technology I  | 3 |
| BGEN 342 | People, Process and Technology II | 3 |
| BGEN 361 | Principles of Business Law        | 3 |
| BMKT 325 | Principles of Marketing           | 3 |

**Capstone and Upper-Division Writing Requirement** <sup>3</sup>

## Complete the following course:

|          |                      |   |
|----------|----------------------|---|
| BGEN 499 | Strategic Management | 3 |
|----------|----------------------|---|

**Management Information Systems Required Courses**

## Complete all of the following courses:

|          |                                                            |   |
|----------|------------------------------------------------------------|---|
| BMIS 326 | Introduction to Data Analytics                             | 3 |
| BMIS 365 | Business App Development (must be taken at UM)             | 3 |
| BMIS 372 | Enterprise Systems & Emerging Technologies                 | 3 |
| BMIS 373 | Business System Analysis & Design                          | 3 |
| BMIS 476 | Integrated Project Management for IS (must be taken at UM) | 3 |
| BMIS 498 | Internship                                                 | 3 |

**Electives**

## Complete 6 credits from the following courses:

|          |                                               |   |
|----------|-----------------------------------------------|---|
| ACTG 321 | Accounting Information Systems I              | 6 |
| BMGT 467 | Global Operations and Supply Chain Management |   |
| BMIS 391 | Special Topics                                |   |
| BMIS 465 | Introduction to Real-time Data Analytics      |   |
| BMIS 471 | Fundamentals of Network & Cybersecurity       |   |
| BMIS 472 | Cybersecurity Management Capstone             |   |
| BMIS 478 | Digital Entrepreneurship                      |   |
| BMIS 479 | Introduction to Consulting                    |   |
| BMIS 491 | Special Topics                                |   |
| BMIS 492 | Independent Study                             |   |
| BMKT 460 | Marketing Hi-Tech Production and Innovation   |   |
| CSCI 151 | Interdisciplinary Computer Science I          |   |
| CSCI 152 | Interdisciplinary Computer Science II         |   |
| M 461    | Data Science Analytics                        |   |
| STAT 451 | Statistical Methods I                         |   |

**Total Hours****75-77**

<sup>1</sup> All courses must be completed with a C- or better to satisfy prerequisites for certain major, upper major core, or capstone courses. Students are advised to complete these courses as early as possible, preferably prior to attempting courses in the upper major core. Prerequisites are strictly enforced.

<sup>2</sup> All upper major core courses must be completed before the capstone can be taken.

<sup>3</sup> Students must complete all primary and secondary lower core and upper core courses and their prerequisites and have an approved graduation application to register for their capstones.

## Four Year Plan

| Course                                    | Title                                                                                             | Hours        |
|-------------------------------------------|---------------------------------------------------------------------------------------------------|--------------|
| <b>Freshman</b>                           |                                                                                                   |              |
| <b>Autumn</b>                             |                                                                                                   |              |
| BGEN 105S                                 | Introduction to Business                                                                          | 3            |
| M 115<br>or M 121<br>or M 151<br>or M 162 | Probability and Linear Mathematics<br>or College Algebra<br>or Precalculus<br>or Applied Calculus | 3-4          |
| WRIT 101<br>or COMX 111A                  | College Writing I <sup>1</sup><br>or Introduction to Public Speaking                              | 3-4          |
| General Education Requirement             |                                                                                                   | 6            |
| <b>Hours</b>                              |                                                                                                   | <b>15-17</b> |

|                                                       |                                                                                                           |              |
|-------------------------------------------------------|-----------------------------------------------------------------------------------------------------------|--------------|
| <b>Spring</b>                                         |                                                                                                           |              |
| FORS 201<br>or PSYX 222<br>or SOCI 202<br>or STAT 216 | Forest Biometrics<br>or Psychological Statistics<br>or Social Statistics<br>or Introduction to Statistics | 3-4          |
| COMX 111A<br>or WRIT 101                              | Introduction to Public Speaking <sup>1</sup><br>or College Writing I                                      | 3-4          |
| ECNS 201S                                             | Principles of Microeconomics                                                                              | 3            |
| General Education Requirement                         |                                                                                                           | 6            |
| <b>Hours</b>                                          |                                                                                                           | <b>15-17</b> |

|                               |                                    |           |
|-------------------------------|------------------------------------|-----------|
| <b>Sophomore</b>              |                                    |           |
| <b>Autumn</b>                 |                                    |           |
| ACTG 201                      | Principles of Financial Accounting | 3         |
| BGEN 222                      | Business Models and Operations     | 3         |
| ECNS 202S                     | Principles of Macroeconomics       | 3         |
| General Education Requirement |                                    | 3         |
| Elective                      |                                    | 3         |
| <b>Hours</b>                  |                                    | <b>15</b> |

|                               |                                           |           |
|-------------------------------|-------------------------------------------|-----------|
| <b>Spring</b>                 |                                           |           |
| ACTG 202                      | Principles of Managerial Accounting       | 3         |
| BMIS 270                      | MIS Foundations for Business              | 3         |
| BGEN 220E                     | Business Ethics and Social Responsibility | 3         |
| Intermediate Writing Course   |                                           | 3         |
| General Education Requirement |                                           | 3         |
| <b>Hours</b>                  |                                           | <b>15</b> |

|               |                                   |           |
|---------------|-----------------------------------|-----------|
| <b>Junior</b> |                                   |           |
| <b>Autumn</b> |                                   |           |
| BFIN 322      | Business Finance                  | 3         |
| BGEN 341      | People, Process and Technology I  | 3         |
| BMIS 326      | Introduction to Data Analytics    | 3         |
| BMIS 373      | Business System Analysis & Design | 3         |
| Elective      |                                   | 3         |
| <b>Hours</b>  |                                   | <b>15</b> |

|               |                                   |   |
|---------------|-----------------------------------|---|
| <b>Spring</b> |                                   |   |
| BMIS 365      | Business App Development          | 3 |
| BGEN 342      | People, Process and Technology II | 3 |
| BMKT 325      | Principles of Marketing           | 3 |

|                    |                                          |                |
|--------------------|------------------------------------------|----------------|
| Elective           |                                          | 6              |
| BMIS 498           | Internship (TAKE DURING SUMMER)          | 3-6            |
| <b>Hours</b>       |                                          | <b>18-21</b>   |
| <b>Senior</b>      |                                          |                |
| <b>Autumn</b>      |                                          |                |
| BGEN 361           | Principles of Business Law               | 3              |
| BMIS 372           | Information Infrastructures <sup>2</sup> | 3              |
| MIS elective       |                                          | 3              |
| Elective           |                                          | 6              |
| <b>Hours</b>       |                                          | <b>15</b>      |
| <b>Spring</b>      |                                          |                |
| BGEN 499           | Strategic Management                     | 3              |
| BMIS 476           | Integrated Project Management for IS     | 3              |
| MIS Elective       |                                          | 3              |
| Elective           |                                          | 3              |
| <b>Hours</b>       |                                          | <b>12</b>      |
| <b>Total Hours</b> |                                          | <b>120-127</b> |

*Last Updated Autumn 2025*

<sup>1</sup> Students with last names A-L will take WRIT 101 in Fall; Students with last names M-Z will take WRIT 101 in Spring.

<sup>2</sup> Noted courses are offered in specific semesters only - see GSSC to confirm term offered.

## Cybersecurity B.S.

### General Degree Requirements

To earn a baccalaureate degree, all students must complete successfully, in addition to any other requirements, the University of Montana General Education Requirements. Please refer to the General Education Requirements page (p. 39) for more information.

Additional requirements for graduation can be found on the Degree/Certificate Requirements for Graduation page (p. 36).

Unless otherwise noted in individual program requirements, a minimum grade point average of 2.00 in all work attempted at the University of Montana-Missoula is required for graduation. Please see the Academic Policies and Procedures page (p. 25) for information on how your GPA is calculated.

Courses taken to satisfy the requirements of a major, minor, or certificate program must be completed with a grade of C- or better unless a higher grade is noted in the program requirements.

### Bachelor of Science - Cybersecurity

- At least 54 credits must be earned in business classes (ECNS, COB internship courses and College of Business faculty-led study abroad course may be counted in OR out of business). A minimum GPA of 2.0 is required for these courses.
- At least 27 credits in business and BMIS 476 must be taken at UM.
- All business credits transferred in after matriculating to UM must be pre-approved by the department chair in your major.
- Unless a higher requirement is specified, all primary lower core courses must be completed with a C- or better and a 2.0 GPA in the listed courses prior to admission into the upper-division Cybersecurity major.
- The College of Business requires that credit be earned for STAT 216 (preferred) or one of the other statistics courses listed

below with a C- or better prior to being admitted into the upper-division Cybersecurity major.

### Course Requirements

| Code                                     | Title                                                  | Hours |
|------------------------------------------|--------------------------------------------------------|-------|
| <b>Primary Lower Core</b>                |                                                        |       |
| Complete all of the following courses:   |                                                        |       |
| BGEN 105S                                | Introduction to Business                               | 3     |
| COMX 111A                                | Introduction to Public Speaking                        | 3     |
| CSCI 215E                                | Social & Ethical Issues in CS                          | 3     |
| Complete one of the following courses:   |                                                        | 3-4   |
| M 115                                    | Probability and Linear Mathematics                     |       |
| M 121                                    | College Algebra                                        |       |
| M 151                                    | Precalculus                                            |       |
| M 162                                    | Applied Calculus                                       |       |
| Complete one of the following courses:   |                                                        | 3-4   |
| FORS 201                                 | Forest Biometrics                                      |       |
| PSYX 222                                 | Psychological Statistics                               |       |
| SOCI 202                                 | Social Statistics                                      |       |
| STAT 216                                 | Introduction to Statistics (preferred)                 |       |
| <b>Technical Lower Core <sup>1</sup></b> |                                                        |       |
| Complete all of the following courses:   |                                                        |       |
| ACTG 201                                 | Principles of Financial Accounting                     | 3     |
| BGEN 222                                 | Business Models and Operations                         | 3     |
| BMIS 270                                 | MIS Foundations for Business                           | 3     |
| ITS 150                                  | CCNA 1: Exploration                                    | 3     |
| ITS 212                                  | Network OS - Server Administration                     | 3     |
| ITS 222                                  | Enterprise Security                                    | 3     |
| Complete one of the following courses:   |                                                        | 3     |
| ITS 152                                  | CCNA 2: Exploration                                    |       |
| ITS 165                                  | Introduction to Operating Systems and the Command Line |       |
| ITS 214                                  | Network OS - Infrastructure                            |       |
| ITS 250                                  | CCNA 3: Exploration                                    |       |
| ITS 279                                  | Cloud Systems                                          |       |
| ITS 280                                  | Computer Repair & Maintenance                          |       |
| MART 220                                 | Creative Coding II                                     |       |
| SOCI 221                                 | Criminal Justice System                                |       |
| <b>Upper Core <sup>2</sup></b>           |                                                        |       |
| Complete all of the following courses:   |                                                        |       |
| BGEN 341                                 | People, Process and Technology I                       | 3     |
| BGEN 342                                 | People, Process and Technology II                      | 3     |
| BGEN 361                                 | Principles of Business Law                             | 3     |
| BMIS 326                                 | Introduction to Data Analytics                         | 3     |
| BMIS 472                                 | Cybersecurity Management Capstone                      | 3     |
| <b>Cybersecurity Requirements</b>        |                                                        |       |
| Complete all of the following courses:   |                                                        |       |
| ACTG 321                                 | Accounting Information Systems I                       | 3     |
| BMIS 364                                 | Linux Network Security                                 | 3     |
| BMIS 365                                 | Business App Development                               | 3     |
| BMIS 373                                 | Business System Analysis & Design                      | 3     |
| BMIS 374                                 | Ethical Hacking                                        | 3     |
| BMIS 474                                 | Cybersecurity Operation Center                         | 3     |



|                                        |                                            |              |
|----------------------------------------|--------------------------------------------|--------------|
| BMIS 476                               | Integrated Project Management for IS       | 3            |
| or BMIS 482                            | Big Data Project                           |              |
| Complete one of the following courses: |                                            | 3            |
| BMIS 372                               | Enterprise Systems & Emerging Technologies |              |
| BMIS 471                               | Fundamentals of Network & Cybersecurity    |              |
| BMIS 479                               | Introduction to Consulting                 |              |
| BMIS 498                               | Internship                                 |              |
| CSCI 340                               | Database Design                            |              |
| MART 441                               | Browser-based Games                        |              |
| <b>Total Hours</b>                     |                                            | <b>75-77</b> |

<sup>1</sup> Students are advised to complete the technical lower core in their freshman and sophomore years.

<sup>2</sup> All upper major core courses must be completed before the capstone can be taken. A student must be listed as a major in Cybersecurity to take these courses. This is defined as junior standing with all primary lower core courses completed, a 2.0 cumulative GPA, and formal admission to the major.

## Big Data Analytics Certificate

The Big Data Analytics (BDA) certificate is designed to provide students with the tools necessary to compete in the Big Data space. Students will use big data tools that are currently available to capture, analyze, and present big data. They will explore a variety of applications with which Big Data tools can be applied, and they will complete a Big Data project. This certificate is currently aimed at students majoring in business, computer science, or mathematics.

### General Certificate Requirements

Additional requirements for graduation can be found on the Degree/Certificate Requirements for Graduation page (p. 36).

Unless otherwise noted in individual program requirements, a minimum grade point average of 2.00 in all work attempted at the University of Montana-Missoula is required for graduation. Please see the Academic Policies and Procedures page (p. 25) for information on how your GPA is calculated.

Courses taken to satisfy the requirements of a major, minor, or certificate program must be completed with a grade of C- or better unless a higher grade is noted in the program requirements.

### Post-Secondary Certificate - Big Data Analytics

- All students pursuing a Big Data Analytics Certificate must also complete the degree requirements for a UM major.
- This program requires a 3.0 GPA in the listed course requirements.

#### Course Requirements

| Code                           | Title                          | Hours |
|--------------------------------|--------------------------------|-------|
| <b>Foundational Course</b>     |                                |       |
| Complete the following course: |                                |       |
| BMIS 326                       | Introduction to Data Analytics | 3     |
| <b>Electives</b>               |                                |       |

|                                                   |                                                                               |           |
|---------------------------------------------------|-------------------------------------------------------------------------------|-----------|
| Complete nine credits from the following courses: |                                                                               | 9         |
| BMIS 365                                          | Business App Development                                                      |           |
| BMIS 465                                          | Introduction to Real-time Data Analytics                                      |           |
| BMKT 440                                          | Marketing Analytics                                                           |           |
| BMKT 482                                          | Telling Stories with Data                                                     |           |
| CSCI 340                                          | Database Design                                                               |           |
| CSCI 370                                          | Sports Analytics                                                              |           |
| CSCI 444                                          | Data Visualization                                                            |           |
| CSCI 447                                          | Machine Learning                                                              |           |
| M 461                                             | Data Science Analytics                                                        |           |
| M 462                                             | Theoretical Basics of Big Data Analytics and Real Time Computation Algorithms |           |
| STAT 451                                          | Statistical Methods I                                                         |           |
| <b>Capstone Project</b>                           |                                                                               |           |
| Complete one of the following courses:            |                                                                               |           |
| BMIS 482                                          | Big Data Project                                                              | 3         |
| or M 467                                          | Data Science Projects                                                         |           |
| <b>Total Hours</b>                                |                                                                               | <b>15</b> |

## Cybersecurity Management Certificate

The Cybersecurity Management Certificate is designed to provide students with the technical and management skills necessary to work in the Cybersecurity field. Students will use Cybersecurity skills as a consultant or as an employee helping an organization to develop and implement a Cybersecurity program or respond to security incidents. Students will explore a variety of knowledge areas of Cybersecurity Management and apply that knowledge in a project in the capstone course. The curriculum is based on the Core Knowledge Units developed by the National Security Agency (NSA) and the Department of Homeland Security (DHS). Students will gain skills in programming; networking technology & protocols; databases & analytics; probability & statistics; policy, legal, ethics, and compliance; cybersecurity fundamentals & practices, and cybersecurity management & planning.

### General Certificate Requirements

Additional requirements for graduation can be found on the Degree/Certificate Requirements for Graduation page (p. 36).

Unless otherwise noted in individual program requirements, a minimum grade point average of 2.00 in all work attempted at the University of Montana-Missoula is required for graduation. Please see the Academic Policies and Procedures page (p. 25) for information on how your GPA is calculated.

Courses taken to satisfy the requirements of a major, minor, or certificate program must be completed with a grade of C- or better unless a higher grade is noted in the program requirements.

### Post-Secondary Certificate - Cybersecurity Management

- This program requires a 3.0 GPA in the listed course requirements.

## Course Requirements

| Code                                                                                 | Title                                       | Hours     |
|--------------------------------------------------------------------------------------|---------------------------------------------|-----------|
| <b>Foundation Course: Network, Protocols, &amp; Sys. Admin. Knowledge Pathway</b>    |                                             |           |
| Complete one of the following courses:                                               |                                             | 3         |
| BMIS 471                                                                             | Fundamentals of Network & Cybersecurity     |           |
| CSCI 466                                                                             | Networks                                    |           |
| CSCI 476                                                                             | Computer Security                           |           |
| or CSCI 574                                                                          | Computer Security                           |           |
| ITS 214                                                                              | Network OS - Infrastructure                 |           |
| <b>Programming &amp; Scripting Knowledge Pathway</b>                                 |                                             |           |
| Complete one of the following courses:                                               |                                             | 3         |
| BMIS 365                                                                             | Business App Development                    |           |
| BMIS 465                                                                             | Introduction to Real-time Data Analytics    |           |
| CSCI 150                                                                             | Introduction to Computer Science            |           |
| CSCI 151                                                                             | Interdisciplinary Computer Science I        |           |
| CSCI 152                                                                             | Interdisciplinary Computer Science II       |           |
| CSCI 258                                                                             | Web Application Development                 |           |
| <b>Databases, Analytics, &amp; Statistics Knowledge Pathway</b>                      |                                             |           |
| Complete one of the following courses:                                               |                                             | 3         |
| BMIS 326                                                                             | Introduction to Data Analytics              |           |
| CSCI 232                                                                             | Intermediate Data Structures and Algorithms |           |
| CSCI 340                                                                             | Database Design                             |           |
| CSCI 444                                                                             | Data Visualization                          |           |
| <b>Policy, Legal, Ethics, &amp; Compliance Knowledge Pathway</b>                     |                                             |           |
| Complete one of the following courses:                                               |                                             | 3         |
| ACTG 321                                                                             | Accounting Information Systems I            |           |
| BGEN 220E                                                                            | Business Ethics and Social Responsibility   |           |
| BGEN 361                                                                             | Principles of Business Law                  |           |
| CSCI 215E                                                                            | Social & Ethical Issues in CS               |           |
| CSCI 315E                                                                            | Computers, Ethics, and Society              |           |
| <b>Cybersecurity Management &amp; Planning Knowledge Pathway</b>                     |                                             |           |
| Complete one of the following courses:                                               |                                             | 3         |
| BMIS 476                                                                             | Integrated Project Management for IS        |           |
| BMIS 478                                                                             | Digital Entrepreneurship                    |           |
| BMIS 479                                                                             | Introduction to Consulting                  |           |
| BMIS 482                                                                             | Big Data Project                            |           |
| <b>Capstone Course: Cybersecurity Fundamentals &amp; Practices Knowledge Pathway</b> |                                             |           |
| Complete the following course:                                                       |                                             |           |
| BMIS 472                                                                             | Cybersecurity Management Capstone           | 3         |
| <b>Total Hours</b>                                                                   |                                             | <b>18</b> |

General Education Requirements. Please refer to the General Education Requirements page (p. 39) for more information.

Additional requirements for graduation can be found on the Degree/Certificate Requirements for Graduation page (p. 36).

Unless otherwise noted in individual program requirements, a minimum grade point average of 2.00 in all work attempted at the University of Montana-Missoula is required for graduation. Please see the Academic Policies and Procedures page (p. 25) for information on how your GPA is calculated.

Courses taken to satisfy the requirements of a major, minor, or certificate program must be completed with a grade of C- or better unless a higher grade is noted in the program requirements.

## Minor - Business Administration

- Students must earn a C- or better in any prerequisites and primary lower core courses before taking the upper division business minor courses. These seven (7) courses must be completed with a 2.0 GPA.
- Student can apply to the Business Minor when they have a C- or better in all primary lower core courses, 60 credits, and a 2.0 primary lower core GPA.
- Three of the four upper minor core classes must be completed at the University of Montana - Missoula.
- The upper minor core classes can only be taken after the application to the Minor in Business Administration has been approved.

## Course Requirements

| Code                                   | Title                               | Hours     |
|----------------------------------------|-------------------------------------|-----------|
| <b>Primary Lower Core</b>              |                                     |           |
| Complete all of the following courses: |                                     |           |
| ACTG 201                               | Principles of Financial Accounting  | 3         |
| ACTG 202                               | Principles of Managerial Accounting | 3         |
| BMIS 270                               | MIS Foundations for Business        | 3         |
| ECNS 201S                              | Principles of Microeconomics        | 3         |
| STAT 216                               | Introduction to Statistics          | 4         |
| or SOCI 202                            | Social Statistics                   |           |
| or PSYX 222                            | Psychological Statistics            |           |
| or FORS 201                            | Forest Biometrics                   |           |
| <b>Upper Minor Core</b>                |                                     |           |
| Complete all of the following courses: |                                     |           |
| BFIN 322                               | Business Finance                    | 3         |
| BGEN 341                               | People, Process and Technology I    | 3         |
| BGEN 361                               | Principles of Business Law          | 3         |
| BMKT 325                               | Principles of Marketing             | 3         |
| <b>Total Hours</b>                     |                                     | <b>28</b> |

## Phyllis J. Washington College of Education

The Phyllis J. Washington College of Education (<http://www.coehs.umt.edu/default.php>) is comprised of three academic departments:

## Business Administration Minor General Degree Requirements

To earn a baccalaureate degree, all students must complete successfully, in addition to any other requirements, the University of Montana

- Counseling
- Educational Leadership
- Teaching and Learning

The Phyllis J. Washington College of Education is also home to the University of Montana Safe Schools Center, National Natives Children's Trauma Center (NNCTC), The Learning and Belong (LAB) Preschool, and Montana Digital Academy (MTDA).

The Phyllis J. Washington College of Education is committed to cultivating professional practices that empower human potential. As a community, we embrace knowledge, respect human dignity, and uphold ethical values. Through collaboration, we strive to enhance society's physical, emotional, and intellectual well-being by generating and sharing knowledge while preparing future counselors, teachers, and educational leaders for success.

The College of Education coordinates the University of Montana Professional Education Unit, a unit comprised of initial teacher preparation at the elementary and secondary levels and the advanced preparation of teachers, educational leaders, and school counselors. The Departments of Teaching and Learning, Educational Leadership, and Counseling prepare professionals for careers through bachelor, master's, specialist, and doctoral degree programs. The teaching and administrative licensure programs in the Phyllis J. Washington College of Education at the University of Montana are accredited by the Council for the Accreditation of Educator Preparation (CAEP) (<http://www.caepnet.org/>). The counseling master's and doctoral programs are accredited by the Council for Accreditation of Counseling and Related Educational Programs (CACREP). The teacher, administrator, and school counseling programs are also accredited by the Montana Board of Public Education.

- Teaching and Learning Department (p. 143)
  - Early Childhood Education P-3 B.A. (p. 145)
  - Elementary Education B.A. (p. 146)
  - Special Education B.A. (p. 147)
  - Early Childhood Education Minor (p. 148)
  - ESL Education Minor (p. 148)
  - Special Education Certificate (p. 150)
  - Specialized Interventionists for Montana Schools Certificate (p. 149)
  - Teacher Librarian Studies Certificate (p. 149)
  - Reading Education Certificate (p. 150)
  - Secondary Licensure (p. 151)

Information about graduate programs in the Phyllis J. Washington College of Education can be found in the graduate section (p. 464) of this catalog.

## Teaching and Learning Department

The Department of Teaching and Learning offers Bachelor of Arts degrees in Elementary Education (K-8) and Early Childhood Education (P-3). The department also offers coursework toward teaching licensure at both the secondary and K-12 levels for students who are earning or have already completed a baccalaureate degree in one of the following state-approved content areas:

- Art
- Biology

- Chemistry
- Earth Science
- Economics
- English
- English as a Second Language
- French
- General Science Broadfield
- Geography
- German
- Government
- Health and Physical Education
- History
- Latin
- Library
- Mathematics
- Music
- Physics
- Psychology
- Reading
- Russian
- Social Studies Broadfield
- Sociology
- Spanish
- Special Education
- Theatre

At the graduate level, the department offers master and doctoral degrees in Teaching and Learning and Education. For more information please see the Department of Teaching and Learning website (<http://coehs.umd.edu/departments/currinst/default.php>).

## Teacher Preparation

### Elementary and Early Childhood Education

Individuals preparing to teach in elementary schools complete a major in Elementary Education (license for grades K-8) or Early Childhood Education (license for grades P-3). Students apply for admission to the Teacher Education Program usually at the end of the sophomore year in order to continue with the education (EDU and EDEC) sequence of courses. All Elementary and Early Childhood Education majors are advised by full-time advisors within the Department of Teaching and Learning.

### Secondary and K-12 licensure

Students preparing to teach at the middle or high school levels (license for grades 5-12) or in K-12 licensure areas will declare a major in the subject area(s) they wish to teach, e.g., English, Mathematics, Music, or any other of the state-approved major content endorsement areas listed previously. They are advised within their major department(s) and, upon admission to the Teacher Education Program, they also are advised within the Department of Teaching and Learning regarding the requirements necessary to earn secondary or K-12 licensure. All secondary and K-12 licensure students seek admission to the Teacher Education Program usually at the end of the sophomore year and complete coursework required for licensure in Teaching and Learning and in their major content area(s).

### Graduate Programs with Initial Teaching Licensure

Individuals who have completed a bachelor's degree may elect to apply to the department's graduate program and complete a graduate-level certificate or the Master of Education in Teaching and Learning with a concentration in Curriculum Studies with licensure to teach.

### Assessment at Admission to the Undergraduate Teacher Education Program

Individuals seeking licensure to teach must apply for admission to the professional Teacher Education Program. Deadlines for application are September 15 and February 15. Individuals are eligible for consideration for admission if they have:

- been admitted to the University of Montana;
- completed at least 30 semester credits;
- earned a minimum cumulative and major/minor GPA (including all transfer credits) of 2.75;
- completed an English writing course (WRIT 101) with a grade of C- or better;
- demonstrated evidence of writing ability in a letter of intent;
- documented appropriate experience working with children or youth;
- secured supportive recommendations from two faculty members;
- presented results of a national fingerprint-based background check; and
- demonstrated appropriate professional behaviors and dispositions associated with success in the profession.

The Teacher Education Program admission application packet includes a policy and procedures handbook and can be downloaded from the Teacher Education Program admissions website (<https://www.umt.edu/education/departments/teaching-and-learning/tep/default.php>).

Once admitted, licensure candidates must maintain a minimum GPA of 2.75 each semester to continue in the program. Candidates who interrupt their studies for more than two years are placed on inactive status and must apply for readmission to both the University and the Teacher Education Program.

Candidates seeking a K-12 endorsement in library, reading, or special education must have full admission to the Teacher Education Program or be a licensed teacher before applying to one of these specialized programs.

Degree-holding individuals are invited to submit transcripts for review to determine how previous course work applies. They may earn a second baccalaureate degree and/or a teaching license or they may combine elementary, secondary, or K-12 licensure with a master's degree.

### Assessment at Application for Student Teaching

Candidates begin planning for student teaching two semesters prior to placement. Candidates are eligible to student teach if they have:

- full admission into the Teacher Education Program;
- a grade of C- or better in all required licensure courses;
- a minimum cumulative GPA of 2.75 (and 2.75 in each field of licensure);
- results of a current national fingerprint-based background check (Candidates with misdemeanors or felonies may be subject to further review by the Clinical Experience Committee.);
- a completed application to student teach and the consent of the Director of Clinical Experiences;

- for Elementary Education majors, students should be enrolled in Level 3 of the program and have completed all coursework in all previous levels;
- for secondary licensure candidates, all methods courses, two thirds of content course work, and approval by departments in the major/minor content area.

Students should consult the Teacher Education Policy Handbook for application deadlines and procedures.

Internships and practica in library, reading, and special education do not substitute for the student teaching semester required for licensure in a subject field.

### Assessment at Program Completion

Through planning and preparation, their established classroom environment, instruction and professional responsibilities, candidates who complete the teacher licensure program at the University of Montana will be prepared to:

1. Design coherent instruction and assessment that demonstrate knowledge of instructional outcomes as well as a deep understanding of students, content, and pedagogy.
2. Establish a classroom environment that fosters positive, respectful relationships and interactions, cooperative endeavors, high expectations, and a love of learning.
3. Deliver authentic instruction that is responsive to students' needs, incorporating critical thinking, student engagement, and meaningful assessment.
4. Carry out responsibilities inherent in the teaching profession, such as communicating with families, participating in a professional community, maintaining accurate records, and engaging in activities and self-reflection that lead to professional growth and development.

### Indian Education for All

It is Montana's constitutional intent that the state's education system will recognize the distinct and unique cultural heritage of American Indians and will be committed in its education goals to the preservation of their cultural heritage. The intent of the legislature as expressed in MCA20-1-501, Indian Education for All, is that every Montanan, whether Indian or non-Indian, be encouraged to learn about the distinct and unique heritage of American Indians in a culturally responsive manner. It is also intended that educational personnel provide means by which school personnel will gain an understanding for the American Indian people.

Candidates preparing for teaching licensure in all endorsement areas are required to complete a minimum of one course in Native American Studies. Throughout their programs of study, candidates must demonstrate:

1. the ability to integrate into their content areas knowledge of the history, cultural heritage, and contemporary status of American Indians and tribes in Montana;
2. knowledge of how students within different populations, including Montana American Indians, differ in their approaches to learning; and
3. the ability to create instructional opportunities that are adapted to diverse learners, including situations where concentrated generational poverty has affected student academic achievement.

## Programs

- Early Childhood Education P-3 B.A. (p. 145)
- Elementary Education B.A. (p. 146)
- Special Education B.A. (p. 147)
- Early Childhood Education Minor (p. 148)
- ESL Education Minor (p. 148)
- Special Education Certificate (p. 150)
- Specialized Interventionists for Montana Schools Certificate (p. 149)
- Teacher Librarian Studies Certificate (p. 149)
- Reading Education Certificate (p. 150)
- Secondary Licensure (p. 151)

## Early Childhood Education P-3 B.A. General Degree Requirements

To earn a baccalaureate degree, all students must complete successfully, in addition to any other requirements, the University of Montana General Education Requirements. Please refer to the General Education Requirements page (p. 39) for more information.

Additional requirements for graduation can be found on the Degree/Certificate Requirements for Graduation page (p. 36).

Unless otherwise noted in individual program requirements, a minimum grade point average of 2.00 in all work attempted at the University of Montana-Missoula is required for graduation. Please see the Academic Policies and Procedures page (p. 25) for information on how your GPA is calculated.

Courses taken to satisfy the requirements of a major, minor, or certificate program must be completed with a grade of C- or better unless a higher grade is noted in the program requirements.

## Bachelor of Arts - Early Childhood Education P-3

- This major requires a minimum GPA of 2.75
- Admission to the Teacher Education Program is required to enroll in EDU and EDEC courses.

### Course Requirements

| Code                                   | Title                                           | Hours |
|----------------------------------------|-------------------------------------------------|-------|
| <b>Language Arts Courses</b>           |                                                 |       |
| Complete the following course:         |                                                 |       |
| EDU 331                                | Lit & Literacy for Children                     | 3     |
| Complete one of the following courses: |                                                 | 3     |
| LIT 110L                               | Introduction to Literature                      |       |
| LIT 120L                               | Poetry                                          |       |
| LIT 236L                               | Literary Histories                              |       |
| LIT 246L                               | Genres, Themes, Approaches                      |       |
| NASX 235X                              | Oral and Written Traditions of Native Americans |       |
| <b>Math Courses</b>                    |                                                 |       |
| Complete all of the following courses: |                                                 |       |

|       |                                                         |   |
|-------|---------------------------------------------------------|---|
| M 132 | Numbers and Operations for Elementary School Teachers   | 3 |
| M 133 | Geometry and Measurement for Elementary School Teachers | 3 |

### Science Courses

Complete all of the following courses:

|           |                                           |   |
|-----------|-------------------------------------------|---|
| BIOB 226N | General Science: Chemical & Life Sciences | 5 |
| ENST 472  | General Science: Conservation Education   | 3 |
| GEO 224N  | General Science: Physics & Geoscience     | 5 |

### Social Studies Courses

Complete all of the following courses:

|              |                                              |   |
|--------------|----------------------------------------------|---|
| ANTY 122S    | Race and Minorities                          | 3 |
| or SOCI 220S | Race, Gender & Class                         |   |
| EDU 222      | Educational Psychology and Child Development | 3 |
| GPYH 121S    | Human Geography                              | 3 |
| or GPYH 141S | Geography of World Regions                   |   |
| HSTA 255     | Montana History                              | 3 |
| NASX 105H    | Introduction to Native American Studies      | 3 |

### Health and Physical Education

Complete the following course:

|         |                                                      |   |
|---------|------------------------------------------------------|---|
| HEE 302 | Methods of Instructional Strategies in Elementary PE | 3 |
|---------|------------------------------------------------------|---|

### The Arts

Complete all of the following courses:

|           |                                             |   |
|-----------|---------------------------------------------|---|
| ARTZ 302A | Teaching Early Childhood and Elementary Art | 2 |
| MUSE 397  | Methods: K-8 Music                          | 2 |
| THTR 239A | Creative Drama/Dance: K-8                   | 2 |

### Teacher Education Program - Professional Licensure Courses

#### Level 1

Complete all of the following courses. All courses must be completed concurrently.

|         |                                                               |   |
|---------|---------------------------------------------------------------|---|
| EDU 395 | Clinical Experience                                           | 1 |
| EDU 397 | Methods: Teaching & Assessing (Methods: PK-4: Early Numeracy) | 3 |
| EDU 397 | Methods: Teaching & Assessing (Methods: PK-3 Early Literacy)  | 3 |

#### Level 2 (Spring Only)

Complete all of the following courses. All courses must be completed concurrently.

|          |                                               |   |
|----------|-----------------------------------------------|---|
| EDEC 408 | Early Childhood Principles and Practices      | 3 |
| EDEC 434 | Social/Emotional Development & Child Guidance | 3 |
| EDU 339  | Teaching Assessment in PK-8 Language Arts     | 3 |
| EDU 346  | Addressing the Needs of Diverse Learners      | 3 |
| EDU 370  | Integrating Technology into Education         | 3 |
| EDU 395  | Clinical Experience (EC Clinical Experience)  | 1 |

#### Level 3 (Autumn Only)

Complete all of the following courses. All courses must be completed concurrently.

|          |                               |   |
|----------|-------------------------------|---|
| EDU 407E | Ethics & Policy Issues        | 3 |
| EDEC 405 | Assessment in Early Childhood | 3 |



|                                                                                    |                                                   |            |
|------------------------------------------------------------------------------------|---------------------------------------------------|------------|
| EDEC 410                                                                           | Families, Communities, Culture                    | 3          |
| EDEC 420                                                                           | Meeting Standards Through Play-Based Environments | 3          |
| EDEC 495                                                                           | EC Fieldwork/Practicum: Integrated Curriculum     | 3          |
| <b>Level 4 - Student Teaching</b>                                                  |                                                   |            |
| Complete all of the following courses. All courses must be completed concurrently. |                                                   |            |
| EDU 494                                                                            | Seminar                                           | 1          |
| EDU 495                                                                            | Student Teaching                                  | 14         |
| <b>Total Hours</b>                                                                 |                                                   | <b>102</b> |

## Elementary Education B.A. General Degree Requirements

To earn a baccalaureate degree, all students must complete successfully, in addition to any other requirements, the University of Montana General Education Requirements. Please refer to the General Education Requirements page (p. 39) for more information.

Additional requirements for graduation can be found on the Degree/Certificate Requirements for Graduation page (p. 36).

Unless otherwise noted in individual program requirements, a minimum grade point average of 2.00 in all work attempted at the University of Montana-Missoula is required for graduation. Please see the Academic Policies and Procedures page (p. 25) for information on how your GPA is calculated.

Courses taken to satisfy the requirements of a major, minor, or certificate program must be completed with a grade of C- or better unless a higher grade is noted in the program requirements.

## Bachelor of Arts - Elementary Education

- This major requires a minimum GPA of 2.75
- Admission to the Teacher Education Program is required to enroll in any EDU courses.

### Course Requirements

| Code                                   | Title                                                   | Hours |
|----------------------------------------|---------------------------------------------------------|-------|
| <b>Language Arts Courses</b>           |                                                         |       |
| Complete the following course:         |                                                         |       |
| EDU 331                                | Lit & Literacy for Children                             | 3     |
| Complete one of the following courses: |                                                         |       |
| LIT 110L                               | Introduction to Literature                              |       |
| LIT 120L                               | Poetry                                                  |       |
| LIT 236L                               | Literary Histories                                      |       |
| LIT 246L                               | Genres, Themes, Approaches                              |       |
| NASX 235X                              | Oral and Written Traditions of Native Americans         |       |
| <b>Mathematics Courses</b>             |                                                         |       |
| Complete all of the following courses: |                                                         |       |
| M 132                                  | Numbers and Operations for Elementary School Teachers   | 3     |
| M 133                                  | Geometry and Measurement for Elementary School Teachers | 3     |

|       |                                                   |   |
|-------|---------------------------------------------------|---|
| M 234 | Higher Mathematics for Elementary School Teachers | 3 |
|-------|---------------------------------------------------|---|

### Science Courses

Complete all of the following courses:

|           |                                           |   |
|-----------|-------------------------------------------|---|
| BIOB 226N | General Science: Chemical & Life Sciences | 5 |
| GEO 224N  | General Science: Physics & Geoscience     | 5 |
| ENST 472  | General Science: Conservation Education   | 3 |

### Social Studies Courses

Complete all of the following courses:

|              |                                                      |   |
|--------------|------------------------------------------------------|---|
| HSTA 101H    | American History I                                   | 4 |
| or HSTA 102H | American History II                                  |   |
| or HSTR 101H | Western Civilization I                               |   |
| or HSTR 102H | Western Civilization II                              |   |
| HSTA 255     | Montana History                                      | 3 |
| GPHY 121S    | Human Geography                                      | 3 |
| or GPHY 141S | Geography of World Regions                           |   |
| NASX 105H    | Introduction to Native American Studies <sup>1</sup> | 3 |
| PSCI 210S    | Intro to American Government                         | 3 |
| or PSCI 220S | Intro to Comparative Government                      |   |
| EDU 222      | Educational Psychology and Child Development         | 3 |

### Health and Physical Education

Complete all of the following courses:

|         |                                                      |   |
|---------|------------------------------------------------------|---|
| HEE 302 | Methods of Instructional Strategies in Elementary PE | 3 |
|---------|------------------------------------------------------|---|

### The Arts

Complete all of the following courses:

|           |                                             |   |
|-----------|---------------------------------------------|---|
| ARTZ 302A | Teaching Early Childhood and Elementary Art | 2 |
| MUSE 397  | Methods: K-8 Music                          | 2 |
| THTR 239A | Creative Drama/Dance: K-8                   | 2 |

### Teacher Education Program - Professional Licensure Courses

#### Level 1

Complete all of the following courses. All courses must be completed concurrently.

|         |                                                    |   |
|---------|----------------------------------------------------|---|
| EDU 340 | Classroom Management                               | 3 |
| EDU 382 | Assessment, Curriculum, & Instruction              | 3 |
| EDU 395 | Clinical Experience                                | 1 |
| EDU 397 | Methods: Teaching & Assessing (Early Numeracy K-4) | 3 |
| EDU 397 | Methods: Teaching & Assessing (PK-3 Early Reading) | 3 |

#### Level 2

Complete all of the following courses. All courses must be completed concurrently.

|         |                                             |   |
|---------|---------------------------------------------|---|
| EDU 339 | Teaching Assessment in PK-8 Language Arts   | 3 |
| EDU 346 | Addressing the Needs of Diverse Learners    | 3 |
| EDU 370 | Integrating Technology into Education       | 3 |
| EDU 395 | Clinical Experience                         | 1 |
| EDU 497 | Teaching and Assessing (K-8 Social Studies) | 3 |

#### Level 3

Complete all of the following courses. All courses must be completed concurrently.

|          |                                          |   |
|----------|------------------------------------------|---|
| EDU 395  | Clinical Experience (Level 3)            | 1 |
| EDU 407E | Ethics & Policy Issues                   | 3 |
| EDU 497  | Teaching and Assessing (5-8 Mathematics) | 3 |
| EDU 497  | Teaching and Assessing (K-8 Science)     | 3 |
| EDU 497  | Teaching and Assessing (4-8 Reading)     | 3 |

#### Level 4 - Student Teaching

Complete all of the following courses. All courses must be completed concurrently.

|         |                  |    |
|---------|------------------|----|
| EDU 494 | Seminar          | 1  |
| EDU 495 | Student Teaching | 14 |

**Total Hours** **110**

<sup>1</sup> Other Native American Studies courses may fulfill the NASX 105H requirement. Please consult with the Education Advisor.

## Special Education B.A.

### General Degree Requirements

To earn a baccalaureate degree, all students must complete successfully, in addition to any other requirements, the University of Montana General Education Requirements. Please refer to the General Education Requirements page (p. 39) for more information.

Additional requirements for graduation can be found on the Degree/Certificate Requirements for Graduation page (p. 36).

Unless otherwise noted in individual program requirements, a minimum grade point average of 2.00 in all work attempted at the University of Montana-Missoula is required for graduation. Please see the Academic Policies and Procedures page (p. 25) for information on how your GPA is calculated.

Courses taken to satisfy the requirements of a major, minor, or certificate program must be completed with a grade of C- or better unless a higher grade is noted in the program requirements.

## Bachelor of Arts - Special Education

- This major requires a minimum GPA of 2.75
- Admission to the Teacher Education Program is required to enroll in any EDU courses.

### Course Requirements

| Code                                   | Title                                           | Hours |
|----------------------------------------|-------------------------------------------------|-------|
| <b>Language Arts Courses</b>           |                                                 |       |
| Complete the following course:         |                                                 |       |
| EDU 331                                | Literature & Literacy for Children              | 3     |
| Complete one of the following courses: |                                                 |       |
| LIT 110L                               | Introduction to Literature                      |       |
| LIT 120L                               | Poetry                                          |       |
| LIT 236L                               | Literary Histories                              |       |
| LIT 246L                               | Genres, Themes, Approaches                      |       |
| NASX 235X                              | Oral and Written Traditions of Native Americans |       |

### Mathematics Courses

Complete all of the following courses:

|       |                                                         |   |
|-------|---------------------------------------------------------|---|
| M 132 | Numbers and Operations for Elementary School Teachers   | 3 |
| M 133 | Geometry and Measurement for Elementary School Teachers | 3 |
| M 234 | Higher Mathematics for Elementary School Teachers       | 3 |

### Science Courses

Complete all of the following courses:

|           |                                           |   |
|-----------|-------------------------------------------|---|
| BIOB 226N | General Science: Chemical & Life Sciences | 5 |
| GEO 224N  | General Science: Physics & Geoscience     | 5 |
| ENST 472  | General Science: Conservation Education   | 3 |

### Social Studies Courses

Complete all of the following courses:

|              |                                                      |   |
|--------------|------------------------------------------------------|---|
| HSTA 101H    | American History I                                   | 4 |
| or HSTA 102H | American History II                                  |   |
| or HSTR 101H | Western Civilization I                               |   |
| or HSTR 102H | Western Civilization II                              |   |
| HSTA 255     | Montana History                                      | 3 |
| GPYH 121S    | Human Geography                                      | 3 |
| or GPYH 141S | Geography of World Regions                           |   |
| NASX 105H    | Introduction to Native American Studies <sup>1</sup> | 3 |
| PSCI 210S    | Intro to American Government                         | 3 |
| or PSCI 220S | Intro to Comparative Government                      |   |
| EDU 222      | Educational Psychology and Child Development         | 3 |

### Health and Physical Education

Complete the following course:

|         |                                                      |   |
|---------|------------------------------------------------------|---|
| HEE 302 | Methods of Instructional Strategies in Elementary PE | 3 |
|---------|------------------------------------------------------|---|

### The Arts

Complete all of the following courses:

|           |                                             |   |
|-----------|---------------------------------------------|---|
| ARTZ 302A | Teaching Early Childhood and Elementary Art | 2 |
| MUSE 397  | Methods: K-8 Music                          | 2 |
| THTR 239A | Creative Drama/Dance: K-8                   | 2 |

### Teacher Education Program - Professional Licensure Courses

#### Level 1

Complete all of the following courses. All courses must be completed concurrently.

|          |                                                    |   |
|----------|----------------------------------------------------|---|
| EDSP 454 | Advanced Academic Interventions                    | 3 |
| EDU 340  | Classroom Management                               | 3 |
| EDU 395  | Clinical Experience                                | 1 |
| EDU 397  | Methods: Teaching & Assessing (PK-3 Early Reading) | 3 |
| EDU 397  | Methods: Teaching & Assessing (Early Numeracy K-4) | 3 |

#### Level 2

Complete all of the following courses. All courses must be completed concurrently.

|          |                                              |   |
|----------|----------------------------------------------|---|
| EDEC 408 | Early Childhood Principles and Practices     | 3 |
| EDSP 405 | Assessment of Students with Exceptionalities | 3 |

|          |                                                        |   |
|----------|--------------------------------------------------------|---|
| EDSP 456 | Introduction to Methods for Low Incidence Disabilities | 3 |
| EDSP 461 | Positive Behavior Supports                             | 3 |
| EDSP 462 | Special Education Law, Policy, and Practice            | 3 |

**Level 3**

Complete all of the following courses. All courses must be completed concurrently.

|          |                                           |   |
|----------|-------------------------------------------|---|
| EDSP 426 | Introduction to Transition & Community    | 3 |
| EDU 395  | Clinical Experience (Level 3)             | 1 |
| EDU 461  | Introduction to Gifted/Talented Education | 3 |
| EDU 497  | Teaching and Assessing (5-8 Mathematics)  | 3 |
| EDU 497  | Teaching and Assessing (4-8 Reading)      | 3 |

**Level 4 - Student Teaching**

Complete all of the following courses. All courses must be completed concurrently.

|         |                                               |    |
|---------|-----------------------------------------------|----|
| EDU 438 | Literacy Assessment, Diagnosis, & Instruction | 3  |
| EDU 494 | Seminar                                       | 1  |
| EDU 495 | Student Teaching (Special Education)          | 11 |

**Total Hours** 112

<sup>1</sup> Other Native American Studies courses may fulfill the NASX 105H requirement. Please consult with the Education Advisor.

## Early Childhood Education Minor

### General Degree Requirements

To earn a baccalaureate degree, all students must complete successfully, in addition to any other requirements, the University of Montana General Education Requirements. Please refer to the General Education Requirements page (p. 39) for more information.

Additional requirements for graduation can be found on the Degree/Certificate Requirements for Graduation page (p. 36).

Unless otherwise noted in individual program requirements, a minimum grade point average of 2.00 in all work attempted at the University of Montana-Missoula is required for graduation. Please see the Academic Policies and Procedures page (p. 25) for information on how your GPA is calculated.

Courses taken to satisfy the requirements of a major, minor, or certificate program must be completed with a grade of C- or better unless a higher grade is noted in the program requirements.

### Minor - Early Childhood Education

- This minor can only be completed by individuals seeking K-8 elementary licensure or currently licensed elementary education teachers.
- EDEC 420 and EDEC 495 are co-requisites and must be completed as the capstone for the ECE minor.

### Course Requirements

| Code                                          | Title                                    | Hours |
|-----------------------------------------------|------------------------------------------|-------|
| <b>Complete all of the following courses:</b> |                                          |       |
| EDEC 408                                      | Early Childhood Principles and Practices | 3     |

|          |                                                     |   |
|----------|-----------------------------------------------------|---|
| EDEC 410 | Families, Communities, Culture                      | 3 |
| EDEC 420 | Meeting Standards Through Play-Based Environments   | 3 |
| EDEC 434 | Social/Emotional Development & Child Guidance       | 3 |
| EDEC 495 | EC Fieldwork/Practicum: Integrated Curriculum       | 3 |
| EDU 222  | Educational Psychology and Child Development        | 3 |
| EDU 397  | Methods: Teaching & Assessing (PK-4 Early Numeracy) | 3 |
| EDU 397  | Methods: Teaching & Assessing (PK-3 Early Literacy) | 3 |

**Total Hours** 24

## ESL Education Minor

- This minor contains course requirements designed to meet state standards. Those interested in teaching in K-12 schools must complete the education/teaching concentration of a major in a teaching content area plus the Teacher Education Program through the Department of Teaching and Learning. Additional teaching areas can be added through completion of the education/teaching concentration of a major or education/teaching minor in that content area.
  - Secondary Education Licensure Program (<https://www.umd.edu/education/departments/teaching-and-learning/tep/default.php>)
  - Licensure Degree Requirements (p. 151)
- To complete this concentration, you need to contact the Teaching and Learning Department. Approvals for this track must come from the Teaching and Learning Department.
- Individuals completing this minor must also complete the education/teaching concentration of a major in another teaching content area.

### General Degree Requirements

To earn a baccalaureate degree, all students must complete successfully, in addition to any other requirements, the University of Montana General Education Requirements. Please refer to the General Education Requirements page (p. 39) for more information.

Additional requirements for graduation can be found on the Degree/Certificate Requirements for Graduation page (p. 36).

Unless otherwise noted in individual program requirements, a minimum grade point average of 2.00 in all work attempted at the University of Montana-Missoula is required for graduation. Please see the Academic Policies and Procedures page (p. 25) for information on how your GPA is calculated.

Courses taken to satisfy the requirements of a major, minor, or certificate program must be completed with a grade of C- or better unless a higher grade is noted in the program requirements.

### Minor - ESL Education

- Those seeking a K-12 endorsement in teaching ESL must have full admission to the Teacher Education Program or be a licensed teacher before applying to this specialized program.

## Course Requirements

| Code                                   | Title                        | Hours     |
|----------------------------------------|------------------------------|-----------|
| <b>Core Courses</b>                    |                              |           |
| Complete all of the following courses: |                              |           |
| LING 470                               | Linguistic Analysis          | 3         |
| LING 471                               | Phonetics and Phonology      | 3         |
| LING 472                               | Syntax                       | 3         |
| LING 473                               | Language and Culture         |           |
| LING 477                               | Bilingualism                 | 3         |
| LING 478                               | Learner Language             | 3         |
| LING 489                               | Morphology                   | 3         |
| LING 495                               | ESL Practicum                | 3         |
| or WLC 410                             | Methods of Language Teaching |           |
| <b>Total Hours</b>                     |                              | <b>21</b> |

## Secondary Teaching Licensure

For endorsement to teach this subject, a student also must gain admission to the Teacher Education Program and meet all the requirements for secondary teaching licensure (p. 151). For more information, see the Teaching and Learning Department webpage (<https://www.umt.edu/education/departments/currinst/default.php>).

## Specialized Interventionists for Montana Schools Certificate

Special education and related service scholars will enhance their learning through this certificate program in addition to their undergraduate degree. This collection of 16 credits addresses secondary transition, teaching learners with low-incidence disabilities, autism intervention, assistive technology, and cultural responsiveness in the schools. Additionally, scholars will learn how to serve students through tele-intervention. Three of the courses have an experiential learning component.

## General Certificate Requirements

Additional requirements for graduation can be found on the Degree/Certificate Requirements for Graduation page (p. 36).

Unless otherwise noted in individual program requirements, a minimum grade point average of 2.00 in all work attempted at the University of Montana-Missoula is required for graduation. Please see the Academic Policies and Procedures page (p. 25) for information on how your GPA is calculated.

Courses taken to satisfy the requirements of a major, minor, or certificate program must be completed with a grade of C- or better unless a higher grade is noted in the program requirements.

## Post-Secondary Certificate - Specialized Interventionists for Montana Schools

### Course Requirements

| Code                                   | Title | Hours |
|----------------------------------------|-------|-------|
| <b>Required Courses</b>                |       |       |
| Complete all of the following courses: |       |       |

|                    |                                                                 |           |
|--------------------|-----------------------------------------------------------------|-----------|
| CSD 445            | Social Communication Skills, Behavior, and Neurodiversity       | 3         |
| CSD 494            | Seminar/Workshop (Tele-Intervention and Learning)               | 1         |
| CSD 494            | Seminar/Workshop (Cultural Responsiveness in Special Education) | 1         |
| EDSP 426           | Introduction to Transition & Community                          | 3         |
| EDSP 456           | Introduction to Methods for Low Incidence Disabilities          | 3         |
| EDSP 494           | Seminar (Assistive Technology Practical Application)            | 2         |
| EDU 518            | Inclusion and Collaboration                                     | 3         |
| <b>Total Hours</b> |                                                                 | <b>16</b> |

## Teacher Librarian Studies Certificate

This program of study can only be completed by those pursuing a teaching endorsement in another content area or by currently licensed teachers. Students must be formally admitted to the Teacher Education Program and complete all of the professional education licensure requirements. Please contact the Department of Teaching and Learning in the College of Education for more information.

## General Certificate Requirements

Additional requirements for graduation can be found on the Degree/Certificate Requirements for Graduation page (p. 36).

Unless otherwise noted in individual program requirements, a minimum grade point average of 2.00 in all work attempted at the University of Montana-Missoula is required for graduation. Please see the Academic Policies and Procedures page (p. 25) for information on how your GPA is calculated.

Courses taken to satisfy the requirements of a major, minor, or certificate program must be completed with a grade of C- or better unless a higher grade is noted in the program requirements.

## Online Program Option

This program may be completed in an online format (<https://catalog.umt.edu/online-programs/definitions/>). Students interested in pursuing an online degree or certificate program are strongly encouraged to contact the offering department to discuss specific program and course modalities (<https://catalog.umt.edu/online-programs/definitions/>) and create a plan of study with an academic advisor. The course requirements listed below may not be consistently offered via online delivery.

## Post-Secondary Certificate - Teacher Librarian Studies

- This certificate requires a minimum GPA of 2.75.
- The Library Media Practicum requires 60 hours in a school or public library. All library media coursework must be completed prior to enrolling in the library media practicum.

## Course Requirements

| Code                                   | Title                                           | Hours     |
|----------------------------------------|-------------------------------------------------|-----------|
| <b>Library Media Courses</b>           |                                                 |           |
| Complete all of the following courses: |                                                 |           |
| LIBM 461                               | Information Literacy                            | 3         |
| LIBM 462                               | Youth Literature for Librarians                 | 3         |
| LIBM 464                               | Reference Resources                             | 3         |
| LIBM 466                               | Libraries & Technology                          | 3         |
| LIBM 467                               | Collection Development & Cataloging             | 4         |
| LIBM 468                               | Administration & Assessment of Library Programs | 3         |
| <b>Library Media Practicum</b>         |                                                 |           |
| Complete the following course:         |                                                 |           |
| LIBM 495                               | Practicum                                       | 2         |
| <b>Total Hours</b>                     |                                                 | <b>21</b> |

## Reading Education Certificate

This program of study can only be completed by those pursuing a teaching endorsement in another content area or by currently licensed teachers. Students must be formally admitted to the Teacher Education Program and complete all of the professional education licensure requirements. Please contact the Department of Teaching and Learning in the College of Education for more information.

## General Certificate Requirements

Additional requirements for graduation can be found on the Degree/Certificate Requirements for Graduation page (p. 36).

Unless otherwise noted in individual program requirements, a minimum grade point average of 2.00 in all work attempted at the University of Montana-Missoula is required for graduation. Please see the Academic Policies and Procedures page (p. 25) for information on how your GPA is calculated.

Courses taken to satisfy the requirements of a major, minor, or certificate program must be completed with a grade of C- or better unless a higher grade is noted in the program requirements.

## Post-Secondary Certificate - Reading Education

- This certificate requires a minimum GPA of 2.75.
- All reading coursework must be complete prior to enrolling in the reading practicum.

## Course Requirements

| Code                                   | Title                                               | Hours |
|----------------------------------------|-----------------------------------------------------|-------|
| <b>Teaching Reading Courses</b>        |                                                     |       |
| Complete all of the following courses: |                                                     |       |
| EDU 331                                | Lit & Literacy for Children                         | 3     |
| EDU 339                                | Teaching Assessment in PK-8 Language Arts           | 3     |
| EDU 397                                | Methods: Teaching & Assessing (PK-3 Early Literacy) | 3     |
| EDU 432                                | Literature & Literacy for Young Adults              | 3     |

|                    |                                               |           |
|--------------------|-----------------------------------------------|-----------|
| EDU 438            | Literacy Assessment, Diagnosis, & Instruction | 3         |
| EDU 481            | Content Area Literacy                         | 3         |
| EDU 497            | Teaching and Assessing (4-8 Reading)          | 4         |
| EDU 557            | Advanced Literacy Practicum K12               | 3         |
| <b>Total Hours</b> |                                               | <b>25</b> |

## Special Education Certificate

This program of study can only be completed by those pursuing a teaching endorsement in another content area or by currently licensed teachers. Students must be formally admitted to the Teacher Education Program and complete all of the professional education licensure requirements. See the Department of Teaching and Learning in the College of Education for more information.

## General Certificate Requirements

Additional requirements for graduation can be found on the Degree/Certificate Requirements for Graduation page (p. 36).

Unless otherwise noted in individual program requirements, a minimum grade point average of 2.00 in all work attempted at the University of Montana-Missoula is required for graduation. Please see the Academic Policies and Procedures page (p. 25) for information on how your GPA is calculated.

Courses taken to satisfy the requirements of a major, minor, or certificate program must be completed with a grade of C- or better unless a higher grade is noted in the program requirements.

## Post-Secondary Certificate - Special Education

- This certificate requires a minimum GPA of 2.75.
- All courses must be completed with a minimum grade of B-.
- All special education coursework must be completed prior to the special education student teaching experience. An application is required to determine special education student teaching eligibility. See Teacher Education Services or the Office of Field Experiences for deadlines.

## Course Requirements

| Code                                     | Title                                                  | Hours |
|------------------------------------------|--------------------------------------------------------|-------|
| <b>Early Childhood Special Education</b> |                                                        |       |
| Complete the following course:           |                                                        |       |
| EDSP 403                                 | Introduction to Early Childhood Special Education      | 3     |
| <b>Special Education Requirements</b>    |                                                        |       |
| Complete all of the following course:    |                                                        |       |
| EDSP 405                                 | Assessment of Students with Exceptionalities           | 3     |
| EDSP 426                                 | Introduction to Transition & Community                 | 3     |
| EDSP 454                                 | Advanced Academic Interventions                        | 3     |
| EDSP 456                                 | Introduction to Methods for Low Incidence Disabilities | 3     |
| EDSP 461                                 | Positive Behavior Supports                             | 3     |
| EDSP 462                                 | Special Education Law, Policy, and Practice            | 3     |



|                                           |                                                  |              |
|-------------------------------------------|--------------------------------------------------|--------------|
| EDU 438                                   | Literacy Assessment, Diagnosis, & Instruction    | 3            |
| <b>Special Education Student Teaching</b> |                                                  |              |
| Complete the following course:            |                                                  |              |
| EDSP 495                                  | Student Teaching: Special Education <sup>1</sup> | 6 or 10      |
| <b>Total Hours</b>                        |                                                  | <b>30-34</b> |

<sup>1</sup> Initial licensure candidates complete a 10-credit practicum. Currently licensed teachers complete a 6-credit practicum.

## Teacher Education Program - Secondary Licensure

Students preparing to teach at the middle or high school levels (license for grades 5-12) will declare a major in the subject area(s) they wish to teach, e.g., English, mathematics, or any other of the state-approved major content endorsement areas listed previously. They are advised within their major department(s) and, upon admission to the Teacher Education Program, they also are advised within the Department of Teaching and Learning regarding the requirements necessary to earn secondary licensure. All secondary licensure students seek admission to the Teacher Education Program, usually at the end of the sophomore year.

Applicants for Montana teaching licensure must satisfy all degree and licensure requirements as outlined below and those set forth by the Montana Office of Public Instruction.

Information about the Teacher Education Program is available in the department office or on the College of Education website (<http://www.coehs.umt.edu/>).

## General Certificate Requirements

Additional requirements for graduation can be found on the Degree/Certificate Requirements for Graduation page (p. 36).

Unless otherwise noted in individual program requirements, a minimum grade point average of 2.00 in all work attempted at the University of Montana-Missoula is required for graduation. Please see the Academic Policies and Procedures page (p. 25) for information on how your GPA is calculated.

Courses taken to satisfy the requirements of a major, minor, or certificate program must be completed with a grade of C- or better unless a higher grade is noted in the program requirements.

## Coursework for Teaching Licensure - Secondary Certification

- The Teacher Education Program requires a minimum GPA of 2.75
- The Teacher Education Program coursework is completed in addition to the education concentration of a major in a teaching content area and leads to secondary (5-12) or K-12 teaching licensure in that content area. Individuals must be admitted to the Teacher Education Program to enroll in EDU courses other than EDU 222. See the Teaching and Learning website (<http://coehs.umt.edu/departments/currinst/default.php>) for additional information regarding admission.

## Course Requirements

| Code                                               | Title                                                                                  | Hours     |
|----------------------------------------------------|----------------------------------------------------------------------------------------|-----------|
| <b>Teacher Education Program Prerequisite</b>      |                                                                                        |           |
| Complete the following course:                     |                                                                                        |           |
| WRIT 101                                           | College Writing I (must be completed before applying to the Teacher Education Program) | 3         |
| <b>Additional Licensure Requirement</b>            |                                                                                        |           |
| Complete the following course:                     |                                                                                        |           |
| NASX 105H                                          | Introduction to Native American Studies <sup>1</sup>                                   | 3         |
| <b>Education Coursework <sup>2</sup></b>           |                                                                                        |           |
| Complete all of the following courses:             |                                                                                        |           |
| EDU 222                                            | Educational Psychology and Child Development                                           | 3         |
| EDU 346                                            | Addressing the Needs of Diverse Learners                                               | 3         |
| EDU 382                                            | Assessment, Curriculum, & Instruction                                                  | 3         |
| EDU 407E                                           | Ethics & Policy Issues                                                                 | 3         |
| EDU 444                                            | Classroom Management in Secondary Schools                                              | 3         |
| EDU 481                                            | Content Area Literacy <sup>3</sup>                                                     | 3         |
| <b>Education Clinical Experiences <sup>3</sup></b> |                                                                                        |           |
| Complete all of the following courses:             |                                                                                        |           |
| EDU 395                                            | Clinical Experience (K-12 I)                                                           | 1         |
| EDU 395                                            | Clinical Experience (K-12 II)                                                          | 1         |
| <b>Student Teaching <sup>4</sup></b>               |                                                                                        |           |
| Complete all of the following courses:             |                                                                                        |           |
| EDU 494                                            | Seminar                                                                                | 1         |
| EDU 495                                            | Student Teaching                                                                       | 14        |
| <b>Total Hours</b>                                 |                                                                                        | <b>41</b> |

<sup>1</sup> Students may take any NASX course to fulfill this requirement. If you choose to take a course with a Native American focus outside of the Native American Studies Department, please consult with your Teaching and Learning advisor for approval.

- <sup>2</sup>
- English and Music majors do not complete EDU 481. They meet the literacy requirement through departmental requirements.
  - All students must complete major and/or minor teaching methods courses specific to their content areas. These methods course requirements are listed within the requirements for each program of study.
- <sup>3</sup>
- EDU 395 (K-12 I) is taken concurrently with EDU 444.
  - EDU 395 (K-12 II) is taken concurrently with the content-specific methods course

<sup>4</sup> All content, methods, and education courses must be completed prior to enrolling in the student teaching semester. An application is required to determine student teaching eligibility. See Teacher Education Services or the Office of Clinical Experiences for deadlines.

## W.A Franke College of Forestry and Conservation

The undergraduate curricular programs at the W.A Franke College of Forestry and Conservation (FCFC) provide the knowledge and skills for

students to become effective natural resource professionals. They offer a sequence of learning experiences that build the necessary confidence and critical thinking capabilities to help solve some of humanity's most pressing problems in the stewardship of our shared natural heritage.

Undergraduate programs at the W.A Franke College of Forestry and Conservation have evolved into a unique action-oriented, interdisciplinary experience where students integrate real-world issues into their coursework. Students will utilize the latest technologies in the assessment and analysis of natural resource challenges, and they will simultaneously apply this learning in multiple field settings across the unparalleled natural settings of Montana.

Programs within the College provide a strong foundation in knowledge about natural systems, science, analytical skills, and policy, but each is tailored to the specialized needs of a particular career track or research discipline in the natural resources management professions. Students have an opportunity to emphasize the disciplinary concentration of their choosing, but all students will receive a balance of ecological, physical, and social sciences.

Students uncertain about which specific major best meets their interests and needs will find that the ability to move between majors early in their student career is facilitated by a common foundational core of coursework. Each major's curricular program is designed to fulfill the broad educational goals for all graduates of the University of Montana as well as the specific disciplinary requirements of civil service and professional accrediting organizations.

## Preparation to Enter the W.A Franke College of Forestry and Conservation

Students planning to enter the W.A Franke College of Forestry and Conservation should attain a sound background in English, social studies, mathematics, biology, and other sciences. Entering freshmen and non-resident transfer students will be admitted in accordance with general university admission requirements (p. 39) listed in this catalog. Resident transfer students or current UM students wanting to change their major to the W.A Franke College of Forestry and Conservation must have a grade point average of 2.0 or higher to be admitted.

## Educational Framework at the W.A Franke College of Forestry and Conservation

Students at the W.A Franke College of Forestry and Conservation are expected to demonstrate a range of capabilities before graduation so they can better address the multiple demands facing modern natural resource managers. The College fosters learning through a combination of innovative teaching and scholarship with a focus on state of the art knowledge in the major fields and emerging natural resource challenges. Each major's curriculum follows a similar seven part structure that encourages the sequenced development of foundational knowledge, applied skills, and creative problem-solving. The following description illustrates how the curricula are organized to present the most efficient and engaging pathway to the full development of student capabilities.

### Foundations of Science

Students will be required to have a solid understanding of the primary physical, chemical, and biological drivers of natural systems. Required for all students are an introductory course in inorganic chemistry and a basic biological science course (there are several introductory biology classes that will apply, depending on a student's major). All students

are encouraged to take an introductory course offered by the College that draw together multiple disciplines to demonstrate the historical and cultural dimensions of conservation: The Nature of Montana (NRSM 121S); Careers in Natural Resources (WILD 180) or Wildlife and People (WILD 105N). In the sophomore year most students will take an introductory course in soils to become familiar with the cycling of energy and nutrients in terrestrial ecosystems while students in the Wildlife Biology major will take coursework in molecular biology and genetics. In their junior year all students take an upper-division ecology class. The University's general education requirements and specific College majors ensure all students take additional natural and social science classes to provide the foundations necessary to understand and manage the natural and social systems underlying human uses of natural resources.

### Quantitative and Analytical Skills

All students at the College will attain the quantitative analytical and measurement foundations needed for their professional or research career path. The freshmen level quantitative requirement rests on a proficiency in mathematics that is obtained through one of two routes depending on major: a college algebra/linear math/probability track or an introductory calculus track. All sophomore students take a statistics class which many fulfill through a special course in the analysis of multiple forms of measurement of natural resource characteristics, called Biometrics. Although not required for all majors, most students decide to take a special course in mapping that combines the common applications of geographic information systems (GIS) and the basic attributes of spatial analysis.

### Applied Field Skills

A tremendous advantage of an education at the W.A Franke College of Forestry and Conservation is the proximity of an unlimited field laboratory in both the managed and untrammelled landscapes of Montana. All undergraduates will have multiple opportunities to learn in field settings as a part of lab sections associated with many of FCFC's courses. Some specific academic opportunities, such as the College's Wilderness and Civilization Program, will take students on extended backcountry trips to gain first-hand knowledge of wild settings. Exceptional hands-on learning experiences are provided at the College's Lubrecht Experimental Forest located less than 30 miles from campus on the Blackfoot River. Since students must demonstrate competency and confidence in outdoor field work to be a successful natural resource professional, students are required to select a sophomore-level field measurements course within their major. Although advanced transfer students (>59 transfer credits) to the College, Parks, Tourism, and Recreation Management Students, and Wildlife Biology students may apply other relevant experiences to their field training requirement, completion of a field measurements course is expected before students may enroll in upper-division courses as the needed skills to succeed in subsequent more advanced field labs depend on a solid core of field capabilities.

### Communication

Effectiveness in addressing our shared problems in natural resource management depends on a person's ability to communicate. W.A Franke College of Forestry and Conservation students will graduate with considerable training in written communication with both lower-division requirements at the 200-level and a series of upper-division courses where writing constitutes the major part of course expectations. Each major in the College provides a distributed writing menu for students entering into upper-division courses, such that each student will take at least three classes where writing skills are evaluated. All students take a public speaking class. Students wishing to gain more experience in

public speaking and communication may also take Natural Resources Interpretation (PTRM 310).

## Professional Specialization

Each academic major in the College contains a sequence of courses and learning experiences tailored to the student's specific professional aspirations. Clusters of courses within a major prepare students to obtain the necessary knowledge and professional competencies to perform the tasks of a modern resource manager or research scientist. Coursework combines biophysical and social science training to allow students to recognize and navigate the complexities and context of conservation sciences and natural resources management. Thus, each major has courses representing both ecological and policy development processes as well as a progression of classes covering the knowledge areas and topics of major natural resources disciplines. Students will take a core of required courses (described in the sections below) as well as a balanced selection of professional electives to acquire sufficient balance and depth in their chosen field to emerge with an identified professional specialty.

## Work Experience and Service Learning

Students at the W.A Franke College of Forestry and Conservation will apply what they have learned in real-world settings prior to graduation. This work experience can be obtained in many ways: via internships, summer employment, study abroad opportunities, or specially designed service learning courses. Service experiences will allow students to obtain credit, learn new material, and offer critical work to established organizations to advance conservation goals. In general, requirements for work experience or internships will be counted based on the number of hours worked over the course of a student's entire undergraduate career, with 400 hours or more of work necessary for graduation.

## Capstone Experience

Each academic major in the College offers an opportunity for students to synthesize previous learning in a real-world project via either an undergraduate research project or the completion of a special, integrative capstone course. Undergraduate research projects are designed through close supervision of a student's academic advisor, while the capstone courses bring together a team of faculty who facilitate student oriented problem solving through a focus on an applied management problem or real world case studies that offer vital experience in the preparation of students for their professional careers.

## Other University-wide Requirements for Academic Achievement

The University of Montana has established standards for graduation of all students that include demonstrated proficiencies in oral and written communication as well as a selection of diverse learning experiences identified as general education courses (p. 39). The College's expectations for writing and quantitative skills more than fulfill university-wide requirements for communication, and many of the courses offered by FCFC also fulfill the categories within general education requirements. All FCFC majors also offer sufficient opportunity for students to choose among the full range of UM courses as free electives, such that each person might be able to explore new areas of learning at their own discretion.

## Student Advising

All W.A Franke College of Forestry and Conservation students will have a full-time faculty advisor as well as the extensive advising support provided by the College's Office of Student Services. Students are paired

with a faculty advisor who matches their academic and professional interests and serves as a mentor and advocate for students as they progress through individual academic achievements. Students may change their advisor at any time as their specific interests develop or change. New students needing an advisor and current students who wish to change advisors should contact the College's Office of Student Services. Students are required to consult with their advisors before each registration period, but remain responsible for ensuring they fulfill the published requirements for graduation (p. 36).

- Earth, Water, and Climate Science B.S. (p. 153)
- Environmental Science and Sustainability B.S. (p. 155)
- Environmental Studies B.A. (p. 156)
- Forestry B.S. (p. 158)
- Geosciences B.S. (p. 160)
- Geosciences B.S. - Earth Science Education (p. 162)
- Parks, Tourism, and Recreation Management B.S. (p. 162)
- Wildlife Biology B.S. - Aquatic (p. 164)
- Wildlife Biology B.S. - Terrestrial (p. 166)
- Ecological Restoration Minor (p. 167)
- Environmental Studies Minor (p. 168)
- Fire Sciences and Management Minor (p. 169)
- Geography Minor (p. 170)
- Geography Education Minor (p. 170)
- Geosciences Minor (p. 171)
- Mountain Studies Minor (p. 171)
- Wilderness Studies Minor (p. 172)
- Wildlife Biology Minor (p. 173)
- Environmental and Nature Writing Certificate (p. 173)
- Environmental Justice Certificate (p. 173)
- Geographic Information Systems Certificate (p. 174)
- Indigenous Knowledge and Environmental Sustainability Certificate (p. 175)
- Northern Rockies Outdoor Leadership Certificate (p. 175)
- Sustainable Agriculture and Food Systems Certificate (p. 176)
- Water Science and Society Certificate (p. 176)

## Earth, Water, and Climate Science B.S.

The B.S. in Earth, Water, and Climate Science is designed for students who seek post-graduate employment as a professional geoscientist or preparation for graduate study in Geosciences.

## General Degree Requirements

To earn a baccalaureate degree, all students must complete successfully, in addition to any other requirements, the University of Montana General Education Requirements. Please refer to the General Education Requirements page (p. 39) for more information.

Additional requirements for graduation can be found on the Degree/Certificate Requirements for Graduation page (p. 36).

Unless otherwise noted in individual program requirements, a minimum grade point average of 2.00 in all work attempted at the University of

Montana-Missoula is required for graduation. Please see the Academic Policies and Procedures page (p. 25) for information on how your GPA is calculated.

Courses taken to satisfy the requirements of a major, minor, or certificate program must be completed with a grade of C- or better unless a higher grade is noted in the program requirements.

# Bachelor of Science - Earth, Water, and Climate Science

## Course Requirements

| Code                                                                                    | Title                                                        | Hours |
|-----------------------------------------------------------------------------------------|--------------------------------------------------------------|-------|
| <b>Lower-Division Core</b>                                                              |                                                              |       |
| Complete one of the following courses:                                                  |                                                              | 4     |
| ERTH 101N & ERTH 103N                                                                   | Earth Systems Science and Earth Systems Science Lab          |       |
| GEO 107N                                                                                | Natural Disasters                                            |       |
| Complete all of the following courses:                                                  |                                                              |       |
| ERTH 194                                                                                | Getting to Know Earth, Water, and Climate Science            | 1     |
| GEO 201                                                                                 | The Rocky Planet                                             | 4     |
| GEO 202                                                                                 | The Water Planet                                             | 4     |
| <b>Upper-Division Core</b>                                                              |                                                              |       |
| Complete all of the following courses:                                                  |                                                              |       |
| GEO 323                                                                                 | Computational Methods for Earth and Environmental Scientists | 3     |
| GEO 428                                                                                 | Field Methods: Earth, Water, and Climate Science             | 3     |
| <b>Upper-Division Electives</b>                                                         |                                                              |       |
| Earth Science                                                                           |                                                              |       |
| Complete two of the following courses:                                                  |                                                              | 6-8   |
| GEO 302                                                                                 | Mineralogy and Optical Mineralogy                            |       |
| GEO 305                                                                                 | Igneous & Metamorph Petrology                                |       |
| GEO 309                                                                                 | Sedimentation/Stratigraphy                                   |       |
| GEO 321                                                                                 | Earth Resources and Sustainability                           |       |
| GEO 439                                                                                 | Geophysics                                                   |       |
| GEO 443                                                                                 | Principles of Sedimentary Petrology                          |       |
| Water Science                                                                           |                                                              |       |
| Complete two of the following courses. At least one must be a Geosciences (GEO) course. |                                                              | 6-8   |
| ERTH 406                                                                                | Global Water Crises                                          |       |
| GEO 420                                                                                 | Hydrogeology                                                 |       |
| GEO 421                                                                                 | Hydrology                                                    |       |
| GEO 460                                                                                 | Process Geomorphology                                        |       |
| NRSM 385                                                                                | Watershed Hydrology                                          |       |
| Climate Science                                                                         |                                                              |       |
| Complete 3 credits of the following courses:                                            |                                                              | 3     |
| ERTH 303N                                                                               | Weather and Climate                                          |       |
| GEO 318                                                                                 | Earth's Changing Climate                                     |       |
| GEO 322                                                                                 | Energy and the Environment                                   |       |
| GEO 488                                                                                 | Snow, Ice and Climate Change                                 |       |
| NRSM 408                                                                                | Natural Climate Solutions                                    |       |
| <b>Upper-Division Experiential Learning</b>                                             |                                                              |       |
| Complete 3 credits of the following courses:                                            |                                                              | 3     |

|                                          |                                                                                  |              |
|------------------------------------------|----------------------------------------------------------------------------------|--------------|
| GEO 316                                  | Getting Started in Research                                                      |              |
| GEO 392                                  | Independent Study                                                                |              |
| GEO 409                                  | Careers in Geosciences                                                           |              |
| GEO 498                                  | Internship                                                                       |              |
| GEO 499                                  | Senior Thesis/Capstone                                                           |              |
| <b>Cognate Sciences</b>                  |                                                                                  |              |
| Physics                                  |                                                                                  |              |
| Complete one of the following sequences: |                                                                                  | 10           |
| Algebra- and Trigonometry-based Physics: |                                                                                  |              |
| PHSX 205N & PHSX 206N                    | College Physics I and College Physics I Laboratory                               |              |
| PHSX 207N & PHSX 208N                    | College Physics II and College Physics II Laboratory                             |              |
| Calculus-based Physics:                  |                                                                                  |              |
| PHSX 215N & PHSX 216N                    | Fundamentals of Physics with Calculus I and Physics Laboratory I with Calculus   |              |
| PHSX 217N & PHSX 218N                    | Fundamentals of Physics with Calculus II and Physics Laboratory II with Calculus |              |
| Chemistry                                |                                                                                  |              |
| Complete one of the following:           |                                                                                  | 3-5          |
| CHMY 121N                                | Introduction to General Chemistry                                                |              |
| CHMY 141N & CHMY 142N                    | College Chemistry I and College Chemistry I Lab                                  |              |
| Mathematics and Statistics               |                                                                                  |              |
| Complete all of the following courses:   |                                                                                  |              |
| M 171                                    | Calculus I                                                                       | 4            |
| M 172                                    | Calculus II                                                                      | 4            |
|                                          | or STAT 216 Introduction to Statistics                                           |              |
| Computer Science                         |                                                                                  |              |
| Complete the following course:           |                                                                                  |              |
| CSCI 150                                 | Introduction to Computer Science                                                 | 3            |
| <b>Total Hours</b>                       |                                                                                  | <b>61-67</b> |

## Four Year Plan

| Course                                      | Title                                                                                       | Hours     |
|---------------------------------------------|---------------------------------------------------------------------------------------------|-----------|
| <b>Freshman</b>                             |                                                                                             |           |
| <b>Autumn</b>                               |                                                                                             |           |
| ERTH 101N                                   | Earth Systems Science                                                                       | 3         |
| ERTH 103N                                   | Earth Systems Science Lab                                                                   | 1         |
| ERTH 194                                    | Getting to Know Earth, Water, and Climate Science                                           | 1         |
| M 171                                       | Calculus I (or appropriate prereq)                                                          | 4         |
| CSCI 150                                    | Introduction to Computer Science                                                            | 3         |
| General Education Requirement / Elective    |                                                                                             | 3         |
| <b>Hours</b>                                |                                                                                             | <b>15</b> |
| <b>Spring</b>                               |                                                                                             |           |
| CHMY 121N or CHMY 141N <i>and</i> CHMY 142N | Introduction to General Chemistry or College Chemistry I <i>and</i> College Chemistry I Lab | 4         |
| M 172 or STAT 216                           | Calculus II or Introduction to Statistics                                                   | 4         |
| General Education Requirement / Elective    |                                                                                             | 8         |
| <b>Hours</b>                                |                                                                                             | <b>16</b> |
| <b>Sophomore</b>                            |                                                                                             |           |
| <b>Autumn</b>                               |                                                                                             |           |
| GEO 201                                     | The Rocky Planet                                                                            | 4         |
| PHSX 205N or PHSX 215N                      | College Physics I or Fundamentals of Physics with Calculus I                                | 4         |

|                                          |                                                                                                        |            |
|------------------------------------------|--------------------------------------------------------------------------------------------------------|------------|
| PHSX 206N<br>or PHSX 216N                | College Physics I Laboratory (take with corresponding course)<br>or Physics Laboratory I with Calculus | 1          |
| General Education Requirement / Elective |                                                                                                        | 6          |
| <b>Hours</b>                             |                                                                                                        | <b>15</b>  |
| <b>Spring</b>                            |                                                                                                        |            |
| GEO 202                                  | The Water Planet                                                                                       | 4          |
| PHSX 207N<br>or PHSX 217N                | College Physics II<br>or Fundamentals of Physics with Calculus II                                      | 4          |
| PHSX 208N<br>or PHSX 218N                | College Physics II Laboratory<br>or Physics Laboratory II with Calculus                                | 1          |
| General Education Requirement / Elective |                                                                                                        | 6          |
| <b>Hours</b>                             |                                                                                                        | <b>15</b>  |
| <b>Junior</b>                            |                                                                                                        |            |
| <b>Autumn</b>                            |                                                                                                        |            |
| GEO 323                                  | Computational Methods for Earth and Environmental Scientists                                           | 3          |
| Upper Division Elective                  |                                                                                                        | 6          |
| General Education Requirement / Elective |                                                                                                        | 6          |
| <b>Hours</b>                             |                                                                                                        | <b>15</b>  |
| <b>Spring</b>                            |                                                                                                        |            |
| Upper Division Elective                  |                                                                                                        | 6          |
| General Education Requirement / Elective |                                                                                                        | 9          |
| <b>Hours</b>                             |                                                                                                        | <b>15</b>  |
| <b>Senior</b>                            |                                                                                                        |            |
| <b>Autumn</b>                            |                                                                                                        |            |
| GEO 428                                  | Field Methods: Earth, Water, and Climate Science                                                       | 3          |
| Upper Division Elective                  |                                                                                                        | 3          |
| Upper Division Experiential Learning     |                                                                                                        | 3          |
| General Education Requirement / Elective |                                                                                                        | 6          |
| <b>Hours</b>                             |                                                                                                        | <b>15</b>  |
| <b>Spring</b>                            |                                                                                                        |            |
| Upper Division Elective                  |                                                                                                        | 3          |
| General Education Requirement / Elective |                                                                                                        | 12         |
| <b>Hours</b>                             |                                                                                                        | <b>15</b>  |
| <b>Total Hours</b>                       |                                                                                                        | <b>121</b> |

Last updated Autumn 2024

## Environmental Science and Sustainability B.S.

### General Degree Requirements

To earn a baccalaureate degree, all students must complete successfully, in addition to any other requirements, the University of Montana General Education Requirements. Please refer to the General Education Requirements page (p. 39) for more information.

Additional requirements for graduation can be found on the Degree/Certificate Requirements for Graduation page (p. 36).

Unless otherwise noted in individual program requirements, a minimum grade point average of 2.00 in all work attempted at the University of Montana-Missoula is required for graduation. Please see the Academic Policies and Procedures page (p. 25) for information on how your GPA is calculated.

Courses taken to satisfy the requirements of a major, minor, or certificate program must be completed with a grade of C- or better unless a higher grade is noted in the program requirements.

## Bachelor of Science - Environmental Science and Sustainability Course Requirements

| Code                                   | Title                                                                                                                                          | Hours |
|----------------------------------------|------------------------------------------------------------------------------------------------------------------------------------------------|-------|
| <b>Lower-Division Required Courses</b> |                                                                                                                                                |       |
| Complete all of the following courses: |                                                                                                                                                |       |
| CHMY 121N                              | Introduction to General Chemistry                                                                                                              | 4     |
| COMX 111A                              | Introduction to Public Speaking                                                                                                                | 3     |
| or THTR 120A                           | Introduction to Acting I                                                                                                                       |       |
| ENST 225S                              | Sustainable Communities                                                                                                                        | 3     |
| FORS 201                               | Forest Biometrics                                                                                                                              | 3-4   |
| or STAT 216                            | Introduction to Statistics                                                                                                                     |       |
| or WILD 240                            | Intro to Biostatistics                                                                                                                         |       |
| FORS 250                               | Intro to GIS for Forest Mgt                                                                                                                    | 3     |
| or GPHY 284                            | Intro to GIS and Cartography                                                                                                                   |       |
| M 121                                  | College Algebra (or higher)                                                                                                                    | 3     |
| NRSM 110                               | First Year Seminar in Environmental Science and Sustainability <sup>1</sup>                                                                    | 1     |
| NRSM 121S                              | Environmental Science and Sustainability                                                                                                       | 3     |
| NRSM 265                               | Ecosystem Restoration                                                                                                                          | 3     |
| or NRSM 281                            | Science of Climate Change                                                                                                                      |       |
| <b>Biology</b>                         |                                                                                                                                                |       |
| Complete one of the following courses: |                                                                                                                                                |       |
| BIOB 160                               | Principles of Living Systems                                                                                                                   |       |
| BIOB 170N                              | Principles of Biological Diversity                                                                                                             |       |
| BIOE 172N                              | Introductory Ecology                                                                                                                           |       |
| BIOO 105N                              | Introduction to Botany                                                                                                                         |       |
| <b>Physical Science</b>                |                                                                                                                                                |       |
| Complete one of the following courses: |                                                                                                                                                |       |
| GPHY 111N & GPHY 112N                  | Intro to Physical Geography: Climate, Landforms, and Vegetation and Intro to Physical Geography Laboratory: Climate, Landforms, and Vegetation | 3-4   |
| NRSM 211N & NRSM 212N                  | Soils and Water and Ecology, Physics and Taxonomy of Soils                                                                                     |       |
| ERTH 101N & ERTH 103N                  | Earth Systems Science and Earth Systems Science Lab                                                                                            |       |
| <b>Climate and Water</b>               |                                                                                                                                                |       |
| Complete one of the following courses: |                                                                                                                                                |       |
| ERTH 303N                              | Weather and Climate                                                                                                                            | 3     |
| GEO 322                                | Energy and the Environment                                                                                                                     |       |
| NRSM 385                               | Watershed Hydrology                                                                                                                            |       |
| NRSM 408                               | Natural Climate Solutions                                                                                                                      |       |
| NRSM 418                               | Ecosystem Climatology                                                                                                                          |       |
| <b>Ecology</b>                         |                                                                                                                                                |       |
| Complete one of the following courses: |                                                                                                                                                |       |
| BIOE 447                               | Ecosystem Ecology                                                                                                                              | 3     |
| FORS 330                               | Forest Ecology                                                                                                                                 |       |
| FORS 333                               | Fire Ecology                                                                                                                                   |       |
| NRSM 462                               | Rangeland Ecology                                                                                                                              |       |



|                                                                             |                                                                 |    |
|-----------------------------------------------------------------------------|-----------------------------------------------------------------|----|
| NRSM 465                                                                    | Restoration Ecology                                             |    |
| <b>Planning and Management</b>                                              |                                                                 |    |
| Complete one of the following courses:                                      |                                                                 | 3  |
| FORS 230                                                                    | Fire Management & Environmental Change                          |    |
| FORS 347                                                                    | Multiple Resource Silviculture                                  |    |
| GPHY 466                                                                    | Environmental Planning                                          |    |
| NRSM 360                                                                    | Rangeland Management                                            |    |
| PTRM 217S                                                                   | Parks & Outdoor Recreation Management                           |    |
| PTRM 485                                                                    | Recreation Planning                                             |    |
| <b>Policy</b>                                                               |                                                                 |    |
| Complete one of the following courses:                                      |                                                                 | 3  |
| NRSM 422                                                                    | Natural Resources Policy                                        |    |
| NRSM 427                                                                    | Water Policy                                                    |    |
| NRSM 428                                                                    | Climate Policy                                                  |    |
| WILD 410                                                                    | Wildlife Policy                                                 |    |
| <b>Social Science</b>                                                       |                                                                 |    |
| Complete one of the following courses:                                      |                                                                 | 3  |
| GPHY 335                                                                    | Water and Sustainability                                        |    |
| NRSM 326                                                                    | Climate and Society                                             |    |
| NRSM 379                                                                    | Collaborations in Natural Resource Decisions                    |    |
| NRSM 475                                                                    | Environment & International Development                         |    |
| PTRM 300                                                                    | Recreation Behavior                                             |    |
| <b>Electives</b>                                                            |                                                                 |    |
| Complete 12 credits of the following courses:                               |                                                                 | 12 |
| BIOE 447                                                                    | Ecosystem Ecology                                               |    |
| 300- and 400-level Environmental Science (ENSC) courses                     |                                                                 |    |
| 300- and 400-level Environmental Studies (ENST) courses                     |                                                                 |    |
| 300- and 400-level Earth Systems (ERTH) courses                             |                                                                 |    |
| 300- and 400-level Forestry (FORS) courses                                  |                                                                 |    |
| 300- and 400-level Geoscience (GEO) courses                                 |                                                                 |    |
| 300- and 400-level Geography (GPHY) courses                                 |                                                                 |    |
| 300- and 400-level Natural Resource Management (NRSM) courses               |                                                                 |    |
| 300- and 400-level Parks, Tourism, and Recreation Management (PTRM) courses |                                                                 |    |
| 300- and 400-level Fish, Wildlife Science & Management (WILD) courses       |                                                                 |    |
| <b>Experiential Learning</b>                                                |                                                                 |    |
| Complete 3 credits of the following courses:                                |                                                                 | 3  |
| ENST 495                                                                    | Field Work/Practicum (PEAS Farm)                                |    |
| FORS 130                                                                    | Introduction to Forestry Field Skills                           |    |
| GEO 428                                                                     | Field Methods: Earth, Water, and Climate Science                |    |
| GPHY 385                                                                    | Field Techniques                                                |    |
| NRSM 110                                                                    | First Year Seminar in Environmental Science and Sustainability  |    |
| NRSM 273                                                                    | Wilderness and Civilization Field Studies                       |    |
| NRSM 374                                                                    | Yellowstone Studies                                             |    |
| NRSM 490                                                                    | Undergraduate Research                                          |    |
| NRSM 498                                                                    | Internship                                                      |    |
| PTRM 150                                                                    | First Year Seminar in Parks, Tourism, and Recreation Management |    |

|                                              |                                              |              |
|----------------------------------------------|----------------------------------------------|--------------|
| WILD 285                                     | Wild Sustenance                              |              |
| WILD 374                                     | Hunter Check Station                         |              |
| <b>Capstone</b>                              |                                              |              |
| Complete 3 credits of the following courses: |                                              | 3            |
| BIOE 447                                     | Ecosystem Ecology                            |              |
| CCS 395                                      | Climate Change Practicum                     |              |
| GBLD 499                                     | GLI Capstone                                 |              |
| GPHY 400                                     | Geography Capstone                           |              |
| GPHY 466                                     | Environmental Planning                       |              |
| HONR 495                                     | Practicum (QUEST Practicum)                  |              |
| NRSM 326                                     | Climate and Society                          |              |
| NRSM 379                                     | Collaborations in Natural Resource Decisions |              |
| NRSM 408                                     | Natural Climate Solutions                    |              |
| NRSM 465                                     | Restoration Ecology                          |              |
| NRSM 499                                     | Senior Thesis                                |              |
| <b>Total Hours</b>                           |                                              | <b>65-67</b> |

<sup>1</sup> NRSM 110 is not required for students who declare the major after already earning 60+ credits.

| Code                                                                                                                                   | Title                                        | Hours |
|----------------------------------------------------------------------------------------------------------------------------------------|----------------------------------------------|-------|
| <b>Writing in the Discipline for ESS</b>                                                                                               |                                              |       |
| To complete the Writing in the Discipline requirement for the ESS major, students must complete at least two of the following courses: |                                              |       |
| BIOE 447                                                                                                                               | Ecosystem Ecology                            |       |
| FORS 330                                                                                                                               | Forest Ecology                               |       |
| GPHY 335                                                                                                                               | Water and Sustainability                     |       |
| NRSM 326                                                                                                                               | Climate and Society                          |       |
| NRSM 379                                                                                                                               | Collaborations in Natural Resource Decisions |       |
| NRSM 462                                                                                                                               | Rangeland Ecology                            |       |
| NRSM 465                                                                                                                               | Restoration Ecology                          |       |
| NRSM 475                                                                                                                               | Environment & International Development      |       |
| NRSM 499                                                                                                                               | Senior Thesis                                |       |
| PTRM 300                                                                                                                               | Recreation Behavior                          |       |
| WILD 410                                                                                                                               | Wildlife Policy                              |       |

## Environmental Studies B.A.

### General Degree Requirements

To earn a baccalaureate degree, all students must complete successfully, in addition to any other requirements, the University of Montana General Education Requirements. Please refer to the General Education Requirements page (p. 39) for more information.

Additional requirements for graduation can be found on the Degree/Certificate Requirements for Graduation page (p. 36).

Unless otherwise noted in individual program requirements, a minimum grade point average of 2.00 in all work attempted at the University of Montana-Missoula is required for graduation. Please see the Academic Policies and Procedures page (p. 25) for information on how your GPA is calculated.

Courses taken to satisfy the requirements of a major, minor, or certificate program must be completed with a grade of C- or better unless a higher grade is noted in the program requirements.

## Bachelor of Arts - Environmental Studies

- To obtain depth of knowledge in one or more specialty areas, students are encouraged to work with an Environmental Studies advisor to select a minor or double major from another campus discipline or earn one or more certificates in Environmental Studies.

### Course Requirements

| Code                                                                   | Title                                                        | Hours |
|------------------------------------------------------------------------|--------------------------------------------------------------|-------|
| <b>Lower-Division Core Courses</b>                                     |                                                              |       |
| Complete all of the following courses:                                 |                                                              |       |
| ENSC 105N                                                              | Environmental Science                                        | 3     |
| ENST 201                                                               | Environmental Info Resources                                 | 3     |
| ENST 225S                                                              | Sustainable Communities                                      | 3     |
| ENST 230H                                                              | Nature and Society                                           | 3     |
| CHMY 121N                                                              | Introduction to General Chemistry                            | 4     |
| Complete one of the following courses:                                 |                                                              | 3     |
| M 115                                                                  | Probability and Linear Mathematics                           |       |
| M 121                                                                  | College Algebra                                              |       |
| M 122                                                                  | College Trigonometry                                         |       |
| M 151                                                                  | Precalculus                                                  |       |
| M 162                                                                  | Applied Calculus                                             |       |
| M 171                                                                  | Calculus I                                                   |       |
| M 181                                                                  | Honors Calculus I                                            |       |
| STAT 216                                                               | Introduction to Statistics                                   |       |
| Complete one of the following courses:                                 |                                                              | 3     |
| BIOB 101N                                                              | Discover Biology                                             |       |
| BIOB 160                                                               | Principles of Living Systems                                 |       |
| BIOB 170N                                                              | Principles of Biological Diversity                           |       |
| <b>Upper-Division Core Courses</b>                                     |                                                              |       |
| Natural Science - Ecology                                              |                                                              |       |
| Complete one of the following courses:                                 |                                                              | 3     |
| BIOE 370                                                               | General Ecology                                              |       |
| ENSC 360                                                               | Applied Ecology                                              |       |
| FORS 330                                                               | Forest Ecology                                               |       |
| Policy                                                                 |                                                              |       |
| Complete the following course:                                         |                                                              |       |
| ENST 367                                                               | Environmental Politics & Policies                            | 3     |
| Humanities                                                             |                                                              |       |
| Complete one of the following courses:                                 |                                                              | 3     |
| ENST 335L                                                              | Literature of the Earth                                      |       |
| ENST 373A                                                              | Writing the Earth: Workshop on Nature, Environment & Justice |       |
| ENST 410                                                               | TEK of Indigenous Peoples                                    |       |
| Justice Studies                                                        |                                                              |       |
| Complete one of the following courses:                                 |                                                              | 3     |
| ENST 480                                                               | Food Justice and Sustainability                              |       |
| ENST 489S                                                              | Environmental Justice Issues & Solutions                     |       |
| <b>Approved Community Service, Internship, or Practicum Experience</b> |                                                              |       |

|                                                                           |                                                          |           |
|---------------------------------------------------------------------------|----------------------------------------------------------|-----------|
| Complete 3 credits of the following courses:                              |                                                          | 3         |
| ENSC 390                                                                  | Undergraduate Research                                   |           |
| ENSC 398                                                                  | Internship                                               |           |
| ENST 398                                                                  | Internship                                               |           |
| ENST 495                                                                  | Field Work/Practicum (PEAS Farm)                         |           |
| <b>Upper-Division Elective Environmental Studies Courses</b> <sup>1</sup> |                                                          |           |
| Complete 9 credits of the following courses:                              |                                                          | 9         |
| ECNS 433                                                                  | Economics of the Environment                             |           |
| ECNS 445                                                                  | Introduction to Environmental Economics & Climate Change |           |
| ENSC 391                                                                  | Special Topics/Experimental Courses                      |           |
| ENSC 470                                                                  | Agroecology                                              |           |
| ENSC 491                                                                  | Special Topics/Experimental Courses                      |           |
| ENSC 492                                                                  | Independent Study                                        |           |
| ENSC 494                                                                  | Seminar/Workshop                                         |           |
| ENSC 495                                                                  | Field Study                                              |           |
| ENST 320E                                                                 | Earth Ethics                                             |           |
| ENST 391                                                                  | Special Topics/Experimental Courses                      |           |
| ENST 395                                                                  | Field Studies: Environmental Studies                     |           |
| ENST 420                                                                  | US Environmental Movement                                |           |
| ENST 427                                                                  | Social Issues: The Mekong Delta                          |           |
| ENST 437                                                                  | Climate Change: Mekong Delta                             |           |
| ENST 472                                                                  | General Science: Conservation Education                  |           |
| ENST 476                                                                  | Community Sustainability in Practice                     |           |
| ENST 491                                                                  | Special Topics/Experimental Courses                      |           |
| ENST 492                                                                  | Independent Study                                        |           |
| ENST 494                                                                  | Seminar/Workshop                                         |           |
| ENST 495                                                                  | Field Work/Practicum (PEAS Farm)                         |           |
| ENST 499                                                                  | Senior Thesis/Capstone                                   |           |
| GPHY 421                                                                  | Sustainable Cities                                       |           |
| PHL 323                                                                   | Ethics of Climate Change                                 |           |
| <b>Additional Requirements</b>                                            |                                                          |           |
| Indigenous Studies                                                        |                                                          |           |
| Complete one of the following courses:                                    |                                                          | 3         |
| ENST 410                                                                  | TEK of Indigenous Peoples                                |           |
| NASX 303E                                                                 | Ecological Perspectives in Native American Traditions    |           |
| NASX 304E                                                                 | Native American Beliefs and Philosophy                   |           |
| <b>Additional Science Course</b>                                          |                                                          |           |
| Complete one of the following courses:                                    |                                                          | 3         |
| BIOB 170N                                                                 | Principles of Biological Diversity <sup>2</sup>          |           |
| BIOO 335                                                                  | Rocky Mountain Flora                                     |           |
| CCS 103X                                                                  | Introduction to Climate Change: Science & Society        |           |
| ERTH 303N                                                                 | Weather and Climate                                      |           |
| GEO 488                                                                   | Snow, Ice and Climate Change                             |           |
| NRSM 210N                                                                 | Soils, Water and Climate                                 |           |
| NRSM 265                                                                  | Ecosystem Restoration                                    |           |
| NRSM 385                                                                  | Watershed Hydrology                                      |           |
| <b>Total Hours</b>                                                        |                                                          | <b>52</b> |

<sup>1</sup> Upper-division required courses listed in the Humanities and Justice Studies areas may count as upper-division elective courses if another

course within the area was taken (e.g., ENST 480 can count as an upper-division elective if ENST 489S is taken).

<sup>2</sup> BIOB 170N may only be used to satisfy this requirement if not used to satisfy the introductory Biology requirement.

## Four Year Plan

| Course                        | Title                                  | Hours      |
|-------------------------------|----------------------------------------|------------|
| <b>Freshman</b>               |                                        |            |
| <b>Autumn</b>                 |                                        |            |
| ENSC 105N                     | Environmental Science                  | 3          |
| ENST 230H                     | Nature and Society                     | 3          |
| ENST 188                      | Getting to Know Environmental Studies  | 1          |
| WRIT 101                      | College Writing I                      | 4          |
| Foreign Language              |                                        | 4          |
| <b>Hours</b>                  |                                        | <b>15</b>  |
| <b>Spring</b>                 |                                        |            |
| ENST 225S                     | Sustainable Communities                | 3          |
| M 115                         | Probability and Linear Mathematics     | 4          |
| Foreign Language              |                                        | 4          |
| BIOB 101N                     | Discover Biology                       | 3          |
| General Education Requirement |                                        | 3          |
| <b>Hours</b>                  |                                        | <b>17</b>  |
| <b>Sophomore</b>              |                                        |            |
| <b>Autumn</b>                 |                                        |            |
| CHMY 121N                     | Introduction to General Chemistry      | 4          |
| ENST 201                      | Environmental Info Resources           | 3          |
| General Education Requirement |                                        | 3          |
| Electives in Focus Area       |                                        | 6          |
| <b>Hours</b>                  |                                        | <b>16</b>  |
| <b>Spring</b>                 |                                        |            |
| ENST 310                      | Environment Montana: A to Z            | 3          |
| NASX 304E                     | Native American Beliefs and Philosophy | 3          |
| Additional Science Course     |                                        | 3          |
| General Education Requirement |                                        | 3          |
| Elective in Focus Area        |                                        | 3          |
| <b>Hours</b>                  |                                        | <b>15</b>  |
| <b>Junior</b>                 |                                        |            |
| <b>Autumn</b>                 |                                        |            |
| ENST 367                      | Environmental Politics & Policies      | 3          |
| Electives in Focus Area       |                                        | 12         |
| <b>Hours</b>                  |                                        | <b>15</b>  |
| <b>Spring</b>                 |                                        |            |
| ENSC 360                      | Applied Ecology                        | 3          |
| Upper Division ENST Elective  |                                        | 3          |
| Electives in Focus Area       |                                        | 9          |
| <b>Hours</b>                  |                                        | <b>15</b>  |
| <b>Senior</b>                 |                                        |            |
| <b>Autumn</b>                 |                                        |            |
| ENST 410                      | TEK of Indigenous Peoples              | 3          |
| Upper Division ENST Elective  |                                        | 3          |
| Electives in Focus Area       |                                        | 9          |
| <b>Hours</b>                  |                                        | <b>15</b>  |
| <b>Spring</b>                 |                                        |            |
| Upper Division ENST Elective  |                                        | 3          |
| Electives in Focus Area       |                                        | 9          |
| <b>Hours</b>                  |                                        | <b>12</b>  |
| <b>Total Hours</b>            |                                        | <b>120</b> |

Last updated Autumn 2024

Environmental Studies students are encouraged to select a minor or double major from another campus discipline, or students can work with a faculty advisor and choose from the following focus areas of study:

- Sustainable Business
- Sustainable Food and Farming
- Environmental Knowledge of Native Peoples
- Environmental Justice
- Environmental Pre-Law
- Environmental Writing and Literature
- Environmental Sciences

Please speak with your faculty mentor when selecting focus areas.

## Forestry B.S.

The B.S. in Forestry prepares students to be leaders in the stewardship of forest resources, from water to wildlife to wood products. Through field and classroom experiences, students gain expertise in the core biophysical and ecological processes that shape forested landscapes, and synthesize this knowledge with socio-economic principles to effectively manage, conserve, and restore natural resources.

The program uses the unique natural settings offered in Montana to give students classroom and field learning experiences with skills-based courses, independent studies, internships and research projects that lead to diverse employment opportunities.

With a degree in Forestry students can work as forest ecologists, silviculturalists, timber managers, forest planners, wildland fire specialists, inventory managers, forest rangers, or as range or soil conservationists. The Forestry degree is accredited by the Society of American Foresters and meets the requirements for qualification as Forester for the U.S. Civil Service Commission (440 series). This means student can work as a forester for federal agencies such as the U.S. Forest Service, Bureau of Land Management, Bureau of Indian Affairs as well as for many state agencies and with private industry.

## General Degree Requirements

To earn a baccalaureate degree, all students must complete successfully, in addition to any other requirements, the University of Montana General Education Requirements. Please refer to the General Education Requirements page (p. 39) for more information.

Additional requirements for graduation can be found on the Degree/Certificate Requirements for Graduation page (p. 36).

Unless otherwise noted in individual program requirements, a minimum grade point average of 2.00 in all work attempted at the University of Montana-Missoula is required for graduation. Please see the Academic Policies and Procedures page (p. 25) for information on how your GPA is calculated.

Courses taken to satisfy the requirements of a major, minor, or certificate program must be completed with a grade of C- or better unless a higher grade is noted in the program requirements.

# Bachelor of Science - Forestry

## Course Requirements

| Code                                                 | Title                                      | Hours |
|------------------------------------------------------|--------------------------------------------|-------|
| <b>Lower-Division Major Required Courses</b>         |                                            |       |
| Complete all of the following courses:               |                                            |       |
| FORS 130                                             | Introduction to Forestry Field Skills      | 2     |
| FORS 202                                             | Forest Mensuration                         | 3     |
| FORS 230                                             | Fire Management & Environmental Change     | 3     |
| FORS 232                                             | Forest Insects & Diseases                  | 3     |
| FORS 241N                                            | Dendrology                                 | 3     |
| FORS 250                                             | Intro to GIS for Forest Mgt                | 3     |
| NRSM 211N                                            | Soils and Water                            | 2     |
| NRSM 212N                                            | Ecology, Physics and Taxonomy of Soils     | 1     |
| <b>Lower-Division Outside Major Required Courses</b> |                                            |       |
| Complete all of the following courses:               |                                            |       |
| BIOO 105N                                            | Introduction to Botany                     | 3     |
| BIOB 160                                             | Principles of Living Systems               | 3     |
| CHMY 121N                                            | Introduction to General Chemistry          | 4     |
| COMX 111A                                            | Introduction to Public Speaking            | 3     |
| or THTR 120A                                         | Introduction to Acting I                   |       |
| ECNS 201S                                            | Principles of Microeconomics               | 3     |
| FORS 201                                             | Forest Biometrics                          | 3-4   |
| or STAT 216                                          | Introduction to Statistics                 |       |
| M 151                                                | Precalculus                                | 4-6   |
| or M 121                                             | College Algebra                            |       |
| & M 122                                              | and College Trigonometry                   |       |
| <b>Upper-Division Major Required Courses</b>         |                                            |       |
| Complete all of the following courses:               |                                            |       |
| FORS 320                                             | Forest Environmental Economics             | 3     |
| FORS 330                                             | Forest Ecology                             | 3     |
| FORS 335                                             | Forest Ecology Field Laboratory            | 1     |
| FORS 340                                             | Sustainable Forest Products                | 3     |
| FORS 341                                             | Timber Harvesting & Roads                  | 3     |
| FORS 349                                             | Practice of Silviculture                   | 3     |
| FORS 440                                             | Forest Stand Management                    | 3     |
| FORS 481                                             | Forest Planning                            | 3     |
| NRSM 385                                             | Watershed Hydrology                        | 3     |
| NRSM 422                                             | Natural Resources Policy                   | 3     |
| <b>Professional Electives</b>                        |                                            |       |
| <b>Biophysical Sciences</b>                          |                                            |       |
| Complete one of the following courses:               |                                            | 3     |
| BIOE 370                                             | General Ecology                            |       |
| BIOO 335                                             | Rocky Mountain Flora                       |       |
| BIOO 433                                             | Plant Physiology                           |       |
| FORS 333                                             | Fire Ecology                               |       |
| FORS 342                                             | Wood Anatomy, Properties, & ID             |       |
| NRSM 418                                             | Ecosystem Climatology                      |       |
| WILD 370                                             | Wildlife Habitat Conservation & Management |       |
| <b>Management Application</b>                        |                                            |       |
| Complete one of the following courses:               |                                            | 3     |
| FORS 331                                             | Wildland Fuel Management                   |       |

|                                               |                                                       |              |
|-----------------------------------------------|-------------------------------------------------------|--------------|
| FORS 434                                      | Advanced Forest Roads                                 |              |
| FORS 435                                      | Advanced Timber Harvesting                            |              |
| NRSM 265                                      | Ecosystem Restoration                                 |              |
| NRSM 360                                      | Rangeland Management                                  |              |
| <b>Policy and Social Science</b>              |                                                       |              |
| Complete one of the following courses:        |                                                       | 3            |
| ENST 225S                                     | Sustainable Communities                               |              |
| ENST 230H                                     | Nature and Society                                    |              |
| NASX 303E                                     | Ecological Perspectives in Native American Traditions |              |
| NRSM 326                                      | Climate and Society                                   |              |
| NRSM 370S                                     | Wildland Conservation Policy/Governance               |              |
| NRSM 379                                      | Collaborations in Natural Resource Decisions          |              |
| NRSM 389E                                     | Ethics and Sustainability                             |              |
| NRSM 427                                      | Water Policy                                          |              |
| NRSM 428                                      | Climate Policy                                        |              |
| NRSM 475                                      | Environment & International Development               |              |
| PTRM 300                                      | Recreation Behavior                                   |              |
| PTRM 310                                      | Natural Resource Interpretation and Communication     |              |
| PTRM 380                                      | Recreation Administration & Leadership                |              |
| PTRM 451                                      | Tourism & Sustainability                              |              |
| PTRM 482                                      | Wilderness & Protected Area Management                |              |
| <b>Measurement and Analysis</b>               |                                                       |              |
| Complete one of the following courses:        |                                                       | 3-5          |
| FORS 350                                      | Forestry Apps of GIS                                  |              |
| FORS 351                                      | Env Remote Sensing                                    |              |
| FORS 505                                      | Sampling Methods                                      |              |
| GEO 421                                       | Hydrology                                             |              |
| PHSX 205N<br>& PHSX 206N                      | College Physics I<br>and College Physics I Laboratory |              |
| <b>Writing in the Disciplines Requirement</b> |                                                       |              |
| Complete three of the following courses:      |                                                       |              |
| BIOE 447                                      | Ecosystem Ecology                                     |              |
| FORS 330                                      | Forest Ecology                                        |              |
| FORS 341                                      | Timber Harvesting & Roads                             |              |
| FORS 349                                      | Practice of Silviculture                              |              |
| FORS 440                                      | Forest Stand Management                               |              |
| <b>Total Hours</b>                            |                                                       | <b>83-88</b> |

## Four Year Plan

| Course             | Title                                       | Hours     |
|--------------------|---------------------------------------------|-----------|
| <b>Freshman</b>    |                                             |           |
| <b>Autumn</b>      |                                             |           |
| FORS 130           | Introduction to Forestry Field Skills       | 2         |
| CHMY 121N          | Introduction to General Chemistry           | 4         |
| M 151              | Precalculus                                 | 4         |
| or M 121 and M 122 | or College Algebra and College Trigonometry |           |
| WRIT 101           | College Writing I                           | 4         |
| BIOB 160           | Principles of Living Systems                | 3         |
| <b>Hours</b>       |                                             | <b>17</b> |
| <b>Spring</b>      |                                             |           |
| BIOO 105N          | Introduction to Botany                      | 3         |

|                                      |                                                                |            |
|--------------------------------------|----------------------------------------------------------------|------------|
| FORS 230                             | Fire Management & Environmental Change                         | 3          |
| COMX 111A<br>or THTR 120A            | Introduction to Public Speaking<br>or Introduction to Acting I | 3          |
| Elective or General Education Course |                                                                | 6          |
| <b>Hours</b>                         |                                                                | <b>15</b>  |
| <b>Sophomore</b>                     |                                                                |            |
| <b>Autumn</b>                        |                                                                |            |
| FORS 201<br>or STAT 216              | Forest Biometrics<br>or Introduction to Statistics             | 3          |
| FORS 250                             | Intro to GIS for Forest Mgt                                    | 3          |
| FORS 241N                            | Dendrology                                                     | 3          |
| NRSM 211N                            | Soils and Water                                                | 2          |
| NRSM 212N                            | Ecology, Physics and Taxonomy of Soils                         | 1          |
| Elective or General Education Course |                                                                | 3          |
| <b>Hours</b>                         |                                                                | <b>15</b>  |
| <b>Spring</b>                        |                                                                |            |
| FORS 202                             | Forest Mensuration                                             | 3          |
| FORS 232                             | Forest Insects & Diseases                                      | 3          |
| ECNS 201S                            | Principles of Microeconomics                                   | 3          |
| Elective or General Education Course |                                                                | 6          |
| <b>Hours</b>                         |                                                                | <b>15</b>  |
| <b>Junior</b>                        |                                                                |            |
| <b>Autumn</b>                        |                                                                |            |
| FORS 330                             | Forest Ecology                                                 | 3          |
| FORS 335                             | Forest Ecology Field Laboratory                                | 1          |
| FORS 340                             | Sustainable Forest Products                                    | 3          |
| FORS 349                             | Practice of Silviculture                                       | 3          |
| Professional Elective                |                                                                | 3          |
| Elective or General Education Course |                                                                | 2          |
| <b>Hours</b>                         |                                                                | <b>15</b>  |
| <b>Spring</b>                        |                                                                |            |
| FORS 320                             | Forest Environmental Economics                                 | 3          |
| FORS 341                             | Timber Harvesting & Roads                                      | 3          |
| NRSM 385                             | Watershed Hydrology                                            | 3          |
| Professional Elective                |                                                                | 3          |
| Elective or General Education Course |                                                                | 3          |
| <b>Hours</b>                         |                                                                | <b>15</b>  |
| <b>Senior</b>                        |                                                                |            |
| <b>Autumn</b>                        |                                                                |            |
| FORS 440                             | Forest Stand Management                                        | 3          |
| Professional Elective                |                                                                | 6          |
| Elective or General Education Course |                                                                | 6          |
| <b>Hours</b>                         |                                                                | <b>15</b>  |
| <b>Spring</b>                        |                                                                |            |
| NRSM 422                             | Natural Resources Policy                                       | 3          |
| FORS 481                             | Forest Planning                                                | 3          |
| Professional Elective                |                                                                | 3          |
| Elective or General Education Course |                                                                | 5          |
| <b>Hours</b>                         |                                                                | <b>14</b>  |
| <b>Total Hours</b>                   |                                                                | <b>121</b> |

*Last updated Autumn 2024*

## Geosciences B.S.

The B.S. in Geosciences is designed for students who seek post-graduate employment as a professional geoscientist or preparation for graduate study in geosciences.

## General Degree Requirements

To earn a baccalaureate degree, all students must complete successfully, in addition to any other requirements, the University of Montana General Education Requirements. Please refer to the General Education Requirements page (p. 39) for more information.

Additional requirements for graduation can be found on the Degree/Certificate Requirements for Graduation page (p. 36).

Unless otherwise noted in individual program requirements, a minimum grade point average of 2.00 in all work attempted at the University of Montana-Missoula is required for graduation. Please see the Academic Policies and Procedures page (p. 25) for information on how your GPA is calculated.

Courses taken to satisfy the requirements of a major, minor, or certificate program must be completed with a grade of C- or better unless a higher grade is noted in the program requirements.

## Bachelor of Science - Geosciences Course Requirements

| Code                                                                                                    | Title                                                        | Hours |
|---------------------------------------------------------------------------------------------------------|--------------------------------------------------------------|-------|
| <b>Lower-Division Core</b>                                                                              |                                                              |       |
| Complete one of the following courses:                                                                  |                                                              | 3     |
| ERTH 101N                                                                                               | Earth Systems Science                                        |       |
| GEO 101N                                                                                                | Introduction to Physical Geology                             |       |
| GEO 105N                                                                                                | Oceanography                                                 |       |
| GEO 107N                                                                                                | Natural Disasters                                            |       |
| Complete one of the following courses:                                                                  |                                                              | 1     |
| ERTH 103N                                                                                               | Earth Systems Science Lab                                    |       |
| GEO 102N                                                                                                | Introduction to Physical Geology Lab                         |       |
| Complete all of the following courses:                                                                  |                                                              |       |
| GEO 201                                                                                                 | The Rocky Planet                                             | 4     |
| GEO 202                                                                                                 | The Water Planet                                             | 4     |
| <b>Electives</b>                                                                                        |                                                              |       |
| Complete 18 credits of the following courses. At least three of these courses must be at the 400-level. |                                                              | 18    |
| GEO 302                                                                                                 | Mineralogy and Optical Mineralogy                            |       |
| GEO 305                                                                                                 | Igneous & Metamorph Petrology                                |       |
| GEO 309                                                                                                 | Sedimentation/Stratigraphy                                   |       |
| GEO 318                                                                                                 | Earth's Changing Climate                                     |       |
| GEO 321                                                                                                 | Earth Resources and Sustainability                           |       |
| GEO 322                                                                                                 | Energy and the Environment                                   |       |
| GEO 323                                                                                                 | Computational Methods for Earth and Environmental Scientists |       |
| GEO 391                                                                                                 | Special Topics                                               |       |
| GEO 392                                                                                                 | Independent Study                                            |       |
| GEO 420                                                                                                 | Hydrogeology                                                 |       |
| GEO 421                                                                                                 | Hydrology                                                    |       |
| GEO 439                                                                                                 | Geophysics                                                   |       |
| GEO 443                                                                                                 | Principles of Sedimentary Petrology                          |       |
| GEO 460                                                                                                 | Process Geomorphology                                        |       |
| GEO 488                                                                                                 | Snow, Ice and Climate Change                                 |       |
| GEO 491                                                                                                 | Special Topics                                               |       |
| GEO 499                                                                                                 | Senior Thesis/Capstone                                       |       |



**Cognate Sciences<sup>1</sup>****Physics**

Complete one of the following sequences: 10

Algebra- and Trigonometry-based Physics:

PHSX 205N College Physics I  
& PHSX 206N and College Physics I Laboratory

Calculus-based Physics:

PHSX 215N Fundamentals of Physics with Calculus I  
& PHSX 216N and Physics Laboratory I with Calculus**Chemistry**

Complete one of the following: 3-5

CHMY 121N Introduction to General Chemistry

CHMY 141N College Chemistry I  
& CHMY 142N and College Chemistry I Lab**Mathematics**

Complete the following course:

M 171 Calculus I 4

**Computer Science**

Complete the following courses:

CSCI 150 Introduction to Computer Science 3

GPHY 284 Intro to GIS and Cartography 3  
or STAT 216 Introduction to Statistics**Cognate Electives**

Complete two of the following courses: 6

COMX 111A Introduction to Public Speaking

COMX 242 Argumentation

ENST 230H Nature and Society

ENST 320E Earth Ethics

ENST 367 Environmental Politics &amp; Policies

GPHY 335 Water and Sustainability

NRSM 427 Water Policy

NRSM 475 Environment &amp; International Development

PHL 112E Intro Ethics and Environment

PHL 323 Ethics of Climate Change

**Total Hours** 59

<sup>1</sup> Students must complete a minimum of 24 credits in cognate science courses. More advanced courses in Chemistry, Computer Science, Math, and Physics may be used to meet this requirement. Course substitutions for the 24 credit minimum in cognate sciences must be approved by a departmental advisor.

**Four Year Plan**

| Course                                            | Title                                                                                          | Hours     |
|---------------------------------------------------|------------------------------------------------------------------------------------------------|-----------|
| <b>Freshman</b>                                   |                                                                                                |           |
| <b>Autumn</b>                                     |                                                                                                |           |
| ERTH 101N<br>& ERTH 103N                          | Earth Systems Science<br>and Earth Systems Science Lab                                         | 4         |
| M 171                                             | Calculus I (or appropriate prereq)                                                             | 4         |
| CSCI 150                                          | Introduction to Computer Science                                                               | 3         |
| CHMY 121N<br>or CHMY 141N <i>and</i><br>CHMY 142N | Introduction to General Chemistry<br>or College Chemistry I <i>and</i> College Chemistry I Lab | 4         |
| ERTH 194                                          | Getting to Know Earth, Water, and Climate Science                                              | 1         |
| <b>Hours</b>                                      |                                                                                                | <b>16</b> |

**Spring**

WRIT 101 College Writing I 4

GPHY 284 Intro to GIS and Cartography 3  
or STAT 216 or Introduction to Statistics

General Education Requirement / Elective 9

**Hours** 16**Sophomore****Autumn**

GEO 201 The Rocky Planet 4

PHSX 205N College Physics I (with lab) 5  
& PHSX 206N or Fundamentals of Physics with Calculus I *and*  
or PHSX 215N *and* Physics Laboratory I with Calculus  
PHSX 216NSTAT 216 Introduction to Statistics 4  
or GPHY 284 or Intro to GIS and Cartography

General Education Requirement / Elective 3

**Hours** 16**Spring**

GEO 202 The Water Planet 4

COMX 111A Introduction to Public Speaking (Cognate Elective) 3  
or COMX 242 or Argumentation  
or ENST 230H or Nature and Society  
or ENST 320E or Earth Ethics  
or ENST 367 or Environmental Politics & Policies  
or GPHY 335 or Water and Sustainability  
or NRSM 427 or Water Policy  
or NRSM 475 or Environment & International Development  
or PHL 112E or Intro Ethics and Environment  
or PHL 323 or Ethics of Climate Change

General Education Requirement / Elective 9

**Hours** 16**Junior****Autumn**

Geoscience Degree Elective 6

COMX 111A Introduction to Public Speaking (Cognate Elective) 3  
or COMX 242 or Argumentation  
or ENST 230H or Nature and Society  
or ENST 320E or Earth Ethics  
or ENST 367 or Environmental Politics & Policies  
or GPHY 335 or Water and Sustainability  
or NRSM 427 or Water Policy  
or NRSM 475 or Environment & International Development  
or PHL 112E or Intro Ethics and Environment  
or PHL 323 or Ethics of Climate Change

General Education Requirement / Elective 6

**Hours** 15**Spring**

Geoscience Degree Elective 6

Upper Division Elective 3

General Education Requirement / Elective 6

**Hours** 15**Senior****Autumn**

Geoscience Degree Elective 3

Advanced Writing Requirement 3

General Education Requirement / Elective 9

**Hours** 15**Spring**

Geoscience Degree Elective 3

Upper Division Elective 3

General Education Requirement / Elective 9

**Hours** 15**Total Hours** 124*Last updated Autumn 2024*

## Geosciences B.S. - Earth Science Education

Individuals interested in teaching in K-12 schools must complete a degree in the content area they want to teach plus the teacher preparation program through the Department of Teaching and Learning. Individuals must complete the teaching track within that degree program, which may contain different course requirements than the non-teaching track since the sequence of courses is designed to meet state standards. Upon completion of the degree program with the teaching track and the secondary licensure program, one will be eligible for a standard Montana teaching license in this content area.

- Secondary Education Licensure Program (<https://www.umt.edu/education/departments/teaching-and-learning/tep/default.php>)
- Licensure Degree Requirements (p. 151)

## General Degree Requirements

To earn a baccalaureate degree, all students must complete successfully, in addition to any other requirements, the University of Montana General Education Requirements. Please refer to the General Education Requirements page (p. 39) for more information.

Additional requirements for graduation can be found on the Degree/Certificate Requirements for Graduation page (p. 36).

Unless otherwise noted in individual program requirements, a minimum grade point average of 2.00 in all work attempted at the University of Montana-Missoula is required for graduation. Please see the Academic Policies and Procedures page (p. 25) for information on how your GPA is calculated.

Courses taken to satisfy the requirements of a major, minor, or certificate program must be completed with a grade of C- or better unless a higher grade is noted in the program requirements.

## Bachelor of Science - Geosciences; Earth Science Education Concentration

- Students must be formally admitted to the Teacher Education Program and complete all of the professional education licensure requirements.
- A major GPA of 2.75 is required to be eligible for student teaching.
- This major does not qualify as a single field endorsement. Individuals must complete the teaching track of a second major or minor in another content area.

## Course Requirements

| Code                                          | Title                                | Hours |
|-----------------------------------------------|--------------------------------------|-------|
| <b>Lower-Division Core</b>                    |                                      |       |
| Complete all of the following courses:        |                                      |       |
| GEO 101N                                      | Introduction to Physical Geology     | 3     |
| GEO 102N                                      | Introduction to Physical Geology Lab | 1     |
| GEO 105N                                      | Oceanography                         | 3     |
| GEO 201                                       | The Rocky Planet                     | 4     |
| <b>Upper-Division Geoscience Core Courses</b> |                                      |       |
| Complete all of the following courses:        |                                      |       |
| GEO 302                                       | Mineralogy and Optical Mineralogy    | 4     |
| GEO 318                                       | Earth's Changing Climate             | 3     |

### Upper-Division Geoscience Elective

|                                                                                                                                                                                                                                                                                                  |   |
|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|---|
| Complete one additional Geoscience (GEO) course at the 300- or 400-level. GEO 320 is recommended to complete the upper division writing requirement in Geosciences but students may also select from the university-approved list of upper division writing courses to fulfill this requirement. | 3 |
|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|---|

### Physics

|                                                  |                                                                                  |
|--------------------------------------------------|----------------------------------------------------------------------------------|
| Complete one of the following Physics sequences: | 10                                                                               |
| Algebra- and Trigonometry-based Physics:         |                                                                                  |
| PHSX 205N & PHSX 206N                            | College Physics I and College Physics I Laboratory                               |
| PHSX 207N & PHSX 208N                            | College Physics II and College Physics II Laboratory                             |
| Calculus-based Physics:                          |                                                                                  |
| PHSX 215N & PHSX 216N                            | Fundamentals of Physics with Calculus I and Physics Laboratory I with Calculus   |
| PHSX 217N & PHSX 218N                            | Fundamentals of Physics with Calculus II and Physics Laboratory II with Calculus |

### Chemistry

|                                        |                                   |   |
|----------------------------------------|-----------------------------------|---|
| Complete all of the following courses: |                                   |   |
| CHMY 121N                              | Introduction to General Chemistry | 4 |
| CHMY 485                               | Laboratory Safety                 | 1 |

### Mathematics

|                                        |                            |   |
|----------------------------------------|----------------------------|---|
| Complete all of the following courses: |                            |   |
| M 162                                  | Applied Calculus           | 4 |
| or M 171                               | Calculus I                 |   |
| STAT 216                               | Introduction to Statistics | 4 |

### Astronomy

|                                |                     |   |
|--------------------------------|---------------------|---|
| Complete the following course: |                     |   |
| ASTR 131N                      | Planetary Astronomy | 3 |

### Teaching Methods Course

|                                |                                                |   |
|--------------------------------|------------------------------------------------|---|
| Complete the following course: |                                                |   |
| EDU 497                        | Teaching and Assessing (Methods: 5-12 Science) | 4 |

|                    |           |
|--------------------|-----------|
| <b>Total Hours</b> | <b>51</b> |
|--------------------|-----------|

## Secondary Teaching Licensure

For endorsement to teach this subject, a student also must gain admission to the Teacher Education Program and meet all the requirements for secondary teaching licensure (p. 151). For more information, see the Teaching and Learning Department webpage (<https://www.umt.edu/education/departments/currinst/default.php>).

## Parks, Tourism, and Recreation Management B.S.

The B.S. in Parks, Tourism & Recreation Management degree is designed to prepare students for professional positions developing and managing nature-based recreation experiences and park resources for public land management agencies, nonprofit organizations, and the nature-based tourism industry. Students pursuing this degree must choose between an concentration in Recreation Resources Management or Nature-Based Tourism. The Recreation Resources Management concentration provides the educational background necessary for evaluating and managing wild lands to protect their recreational, heritage, and ecological

values. The Nature-Based Tourism concentration is designed to combine an understanding of social, cultural, political, environmental, and economic contexts surrounding tourism in a natural resource setting. All students learn the processes and conceptual skills needed to determine alternative management strategies, make management decisions, and carry out management programs. Included are courses leading to an understanding of the basic ecological characteristics of recreational lands. Students also take courses dealing with human behavior and management. Emphasis is placed on presenting problems that would be encountered while managing national parks and forests, state and regional parks, wilderness areas, and other recreation resources of international and national significance.

## General Degree Requirements

To earn a baccalaureate degree, all students must complete successfully, in addition to any other requirements, the University of Montana General Education Requirements. Please refer to the General Education Requirements page (p. 39) for more information.

Additional requirements for graduation can be found on the Degree/Certificate Requirements for Graduation page (p. 36).

Unless otherwise noted in individual program requirements, a minimum grade point average of 2.00 in all work attempted at the University of Montana-Missoula is required for graduation. Please see the Academic Policies and Procedures page (p. 25) for information on how your GPA is calculated.

Courses taken to satisfy the requirements of a major, minor, or certificate program must be completed with a grade of C- or better unless a higher grade is noted in the program requirements.

## Bachelor of Science - Parks, Tourism, and Recreation Management

### Course Requirements

| Code                                              | Title                                                                                                                                          | Hours |
|---------------------------------------------------|------------------------------------------------------------------------------------------------------------------------------------------------|-------|
| <b>Lower-Division Major Required Courses</b>      |                                                                                                                                                |       |
| Complete all of the following courses:            |                                                                                                                                                |       |
| PTRM 141Y                                         | National Parks and American Culture                                                                                                            | 3     |
| PTRM 150                                          | First Year Seminar in Parks, Tourism, and Recreation Management                                                                                | 1     |
| PTRM 210S                                         | Nature Tourism & Commercial Recreation                                                                                                         | 3     |
| PTRM 217S                                         | Parks & Outdoor Recreation Management                                                                                                          | 3     |
| Complete one of the following courses with a lab: |                                                                                                                                                | 3-4   |
| ERTH 101N & ERTH 103N                             | Earth Systems Science and Earth Systems Science Lab                                                                                            |       |
| GPHY 111N & GPHY 112N                             | Intro to Physical Geography: Climate, Landforms, and Vegetation and Intro to Physical Geography Laboratory: Climate, Landforms, and Vegetation |       |
| NRSM 211N & NRSM 212N                             | Soils and Water and Ecology, Physics and Taxonomy of Soils                                                                                     |       |
| Complete one of the following courses:            |                                                                                                                                                | 3     |
| ANTY 101H                                         | Anthropology & the Human Experience                                                                                                            |       |
| GPHY 141S                                         | Geography of World Regions                                                                                                                     |       |

|                                                      |                                                       |              |
|------------------------------------------------------|-------------------------------------------------------|--------------|
| NASX 105H                                            | Introduction to Native American Studies               |              |
| <b>Lower-Division Outside Major Required Courses</b> |                                                       |              |
| Complete all of the following courses:               |                                                       |              |
| COMX 111A                                            | Introduction to Public Speaking                       | 3            |
| or THTR 120A                                         | Introduction to Acting I                              |              |
| ECNS 201S                                            | Principles of Microeconomics                          | 3            |
| M 115                                                | Probability and Linear Mathematics                    | 3            |
| PSCI 210S                                            | Intro to American Government                          | 3            |
| PSYX 100S                                            | Intro to Psychology                                   | 3            |
| or SOCI 101S                                         | Introduction to Sociology                             |              |
| or GPHY 121S                                         | Human Geography                                       |              |
| Complete one of the following courses:               |                                                       | 3            |
| BIOB 170N                                            | Principles of Biological Diversity                    |              |
| BIOE 172N                                            | Introductory Ecology                                  |              |
| BIOO 105N                                            | Introduction to Botany                                |              |
| Complete one of the following courses:               |                                                       | 3-4          |
| STAT 216                                             | Introduction to Statistics                            |              |
| FORS 201                                             | Forest Biometrics                                     |              |
| <b>Upper-Division Major Required Courses</b>         |                                                       |              |
| Complete all of the following courses:               |                                                       |              |
| BIOE 447                                             | Ecosystem Ecology                                     | 3            |
| or FORS 330                                          | Forest Ecology                                        |              |
| or NRSM 462                                          | Rangeland Ecology                                     |              |
| NRSM 422                                             | Natural Resources Policy                              | 3            |
| or WILD 410                                          | Wildlife Policy                                       |              |
| PTRM 300                                             | Recreation Behavior                                   | 3            |
| PTRM 310                                             | Natural Resource Interpretation and Communication     | 3            |
| PTRM 380                                             | Recreation Administration & Leadership                | 3            |
| PTRM 482                                             | Wilderness & Protected Area Management                | 3            |
| or PTRM 451                                          | Tourism & Sustainability                              |              |
| PTRM 484                                             | Capstone in Parks, Tourism, and Recreation Management | 4            |
| PTRM 485                                             | Recreation Planning                                   | 3            |
| PTRM 498                                             | Internship                                            | 3            |
| <b>Skills Courses</b>                                |                                                       |              |
| Complete 3 credits from the following courses:       |                                                       | 3            |
| COMX 220S                                            | Introduction to Organizational Communication          |              |
| NRSM 379                                             | Collaborations in Natural Resource Decisions          |              |
| FORS 250                                             | Intro to GIS for Forest Mgt                           |              |
| PSCI 360                                             | Experimental Offering: Public Administration          |              |
| <b>Business Course Requirement</b>                   |                                                       |              |
| Complete one of the following courses:               |                                                       | 3            |
| BGEN 105S                                            | Introduction to Business                              |              |
| BMGT 401                                             | Entertainment and Sports Event Management             |              |
| BMGT 410                                             | Sustainable Business Practices                        |              |
| <b>Total Hours</b>                                   |                                                       | <b>71-73</b> |

## Four Year Plan

| Course                                                                                                   | Title                                                                                                                                                                                                                                                        | Hours        |
|----------------------------------------------------------------------------------------------------------|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|--------------|
| <b>Freshman</b>                                                                                          |                                                                                                                                                                                                                                                              |              |
| <b>Autumn</b>                                                                                            |                                                                                                                                                                                                                                                              |              |
| WRIT 101                                                                                                 | College Writing I                                                                                                                                                                                                                                            | 3-4          |
| M 115                                                                                                    | Probability and Linear Mathematics                                                                                                                                                                                                                           | 3-4          |
| PTRM 150                                                                                                 | First Year Seminar in Parks, Tourism, and Recreation Management                                                                                                                                                                                              | 1            |
| PTRM 210S                                                                                                | Nature Tourism & Commercial Recreation                                                                                                                                                                                                                       | 3            |
| PSYX 100S<br>or SOCI 101S<br>or GPHY 121S                                                                | Intro to Psychology<br>or Introduction to Sociology<br>or Human Geography                                                                                                                                                                                    | 3            |
| General Education Requirement/Elective                                                                   |                                                                                                                                                                                                                                                              | 3            |
| <b>Hours</b>                                                                                             |                                                                                                                                                                                                                                                              | <b>16-18</b> |
| <b>Spring</b>                                                                                            |                                                                                                                                                                                                                                                              |              |
| PTRM 141Y                                                                                                | National Parks and American Culture                                                                                                                                                                                                                          | 3            |
| PTRM 217S                                                                                                | Parks & Outdoor Recreation Management                                                                                                                                                                                                                        | 3            |
| COMX 111A<br>or THTR 120A                                                                                | Introduction to Public Speaking<br>or Introduction to Acting I                                                                                                                                                                                               | 3            |
| BIOB 170N<br>or BIOE 172N<br>or BIOO 105N                                                                | Principles of Biological Diversity<br>or Introductory Ecology<br>or Introduction to Botany                                                                                                                                                                   | 3            |
| General Education Requirement/Elective                                                                   |                                                                                                                                                                                                                                                              | 3            |
| <b>Hours</b>                                                                                             |                                                                                                                                                                                                                                                              | <b>15</b>    |
| <b>Sophomore</b>                                                                                         |                                                                                                                                                                                                                                                              |              |
| <b>Autumn</b>                                                                                            |                                                                                                                                                                                                                                                              |              |
| FORS 201<br>or STAT 216                                                                                  | Forest Biometrics<br>or Introduction to Statistics                                                                                                                                                                                                           | 3-4          |
| NRSM 211N<br>& NRSM 212N<br>or GPHY 111N <i>and</i><br>GPHY 112N<br>or ERTN 101N <i>and</i><br>ERTN 103N | Soils and Water<br>or Intro to Physical Geography: Climate, Landforms,<br>and Vegetation <i>and</i> Intro to Physical Geography<br>Laboratory: Climate, Landforms, and Vegetation<br>Lab<br>or Earth Systems Science <i>and</i> Earth Systems<br>Science Lab | 3-4          |
| PSCI 210S                                                                                                | Intro to American Government                                                                                                                                                                                                                                 | 3            |
| General Education Requirement/Elective                                                                   |                                                                                                                                                                                                                                                              | 6            |
| <b>Hours</b>                                                                                             |                                                                                                                                                                                                                                                              | <b>15-17</b> |
| <b>Spring</b>                                                                                            |                                                                                                                                                                                                                                                              |              |
| ECNS 201S                                                                                                | Principles of Microeconomics                                                                                                                                                                                                                                 | 3            |
| GPHY 141S<br>or ANTY 101H<br>or NASX 105H                                                                | Geography of World Regions<br>or Anthropology & the Human Experience<br>or Introduction to Native American Studies                                                                                                                                           | 3            |
| Skills Course <sup>1</sup>                                                                               |                                                                                                                                                                                                                                                              | 3            |
| General Education Requirement/Elective                                                                   |                                                                                                                                                                                                                                                              | 6            |
| <b>Hours</b>                                                                                             |                                                                                                                                                                                                                                                              | <b>15</b>    |
| <b>Junior</b>                                                                                            |                                                                                                                                                                                                                                                              |              |
| <b>Autumn</b>                                                                                            |                                                                                                                                                                                                                                                              |              |
| FORS 330<br>or NRSM 462<br>or BIOE 447                                                                   | Forest Ecology<br>or Rangeland Ecology<br>or Ecosystem Ecology                                                                                                                                                                                               | 3            |
| PTRM 310                                                                                                 | Natural Resource Interpretation and Communication                                                                                                                                                                                                            | 3            |
| Upper Division Course/Electives                                                                          |                                                                                                                                                                                                                                                              | 9            |
| <b>Hours</b>                                                                                             |                                                                                                                                                                                                                                                              | <b>15</b>    |
| <b>Spring</b>                                                                                            |                                                                                                                                                                                                                                                              |              |
| PTRM 300                                                                                                 | Recreation Behavior                                                                                                                                                                                                                                          | 3            |
| PTRM 380                                                                                                 | Recreation Administration & Leadership                                                                                                                                                                                                                       | 3            |
| BGEN 105S<br>or BMGT 401<br>or BMGT 410                                                                  | Introduction to Business<br>or Entertainment and Sports Event Management<br>or Sustainable Business Practices                                                                                                                                                | 3            |
| Upper Division Course/Electives                                                                          |                                                                                                                                                                                                                                                              | 6            |
| <b>Hours</b>                                                                                             |                                                                                                                                                                                                                                                              | <b>15</b>    |

|                                 |                                                                       |                |
|---------------------------------|-----------------------------------------------------------------------|----------------|
| <b>Senior</b>                   |                                                                       |                |
| <b>Autumn</b>                   |                                                                       |                |
| PTRM 482<br>or PTRM 451         | Wilderness & Protected Area Management<br>or Tourism & Sustainability | 3              |
| PTRM 498                        | Internship                                                            | 3              |
| PTRM 494                        | Seminar                                                               | 4              |
| Upper Division Course/Electives |                                                                       | 6              |
| <b>Hours</b>                    |                                                                       | <b>16</b>      |
| <b>Spring</b>                   |                                                                       |                |
| PTRM 485                        | Recreation Planning                                                   | 3              |
| NRSM 422<br>or WILD 410         | Natural Resources Policy<br>or Wildlife Policy                        | 3              |
| Upper Division Course/Electives |                                                                       | 9              |
| <b>Hours</b>                    |                                                                       | <b>15</b>      |
| <b>Total Hours</b>              |                                                                       | <b>122-126</b> |

### Updated Autumn 2025

<sup>1</sup> FORS 250, COMX 220S, NRSM 379, or PSCI 360

## Wildlife Biology B.S. - Aquatic General Degree Requirements

To earn a baccalaureate degree, all students must complete successfully, in addition to any other requirements, the University of Montana General Education Requirements. Please refer to the General Education Requirements page (p. 39) for more information.

Additional requirements for graduation can be found on the Degree/Certificate Requirements for Graduation page (p. 36).

Unless otherwise noted in individual program requirements, a minimum grade point average of 2.00 in all work attempted at the University of Montana-Missoula is required for graduation. Please see the Academic Policies and Procedures page (p. 25) for information on how your GPA is calculated.

Courses taken to satisfy the requirements of a major, minor, or certificate program must be completed with a grade of C- or better unless a higher grade is noted in the program requirements.

## Bachelor of Science - Wildlife Biology; Aquatic Concentration

- This major requires a minimum GPA of 2.5.

### Course Requirements

| Code                                   | Title                                   | Hours |
|----------------------------------------|-----------------------------------------|-------|
| <b>Major Required Courses</b>          |                                         |       |
| Complete all of the following courses: |                                         |       |
| BIOB 160                               | Principles of Living Systems            | 3     |
| BIOB 161N                              | Principles of Living Systems Lab        | 1     |
| BIOB 170N                              | Principles of Biological Diversity      | 3     |
| BIOB 272                               | Genetics and Evolution                  | 4     |
| BIOE 370                               | General Ecology                         | 3     |
| BIOE 371                               | General Ecology Lab (equivalent to 271) | 2     |
| BIOO 320<br>or BIOO 335                | General Botany<br>Rocky Mountain Flora  | 4-5   |
| WILD 180                               | Careers in Wildlife Biology             | 2     |

|             |                                                                                                                                            |   |
|-------------|--------------------------------------------------------------------------------------------------------------------------------------------|---|
| WILD 274    | Human Dimensions of Wildlife                                                                                                               | 3 |
| WILD 346    | Wildlife Physiological Ecology                                                                                                             | 3 |
| WILD 398    | Internship (fulfills the Wildlife Biology Experiential Learning requirement. Alternatives are possible. See the Wildlife Biology Advisor.) | 2 |
| WILD 410    | Wildlife Policy                                                                                                                            | 3 |
| or NRSM 422 | Natural Resources Policy                                                                                                                   |   |
| or NRSM 427 | Water Policy                                                                                                                               |   |
| or NRSM 428 | Climate Policy                                                                                                                             |   |
| WILD 480    | The Upshot–Applied Wildlife Management                                                                                                     | 3 |
| or BIOB 480 | Conservation Genetics                                                                                                                      |   |
| or BIOB 486 | Genomics                                                                                                                                   |   |
| or BIOM 460 | Ecology of Infectious Diseases                                                                                                             |   |
| or NRSM 379 | Collaborations in Natural Resource Decisions                                                                                               |   |
| or PTRM 300 | Recreation Behavior                                                                                                                        |   |
| WILD 494    | Senior Wildlife Seminar                                                                                                                    | 1 |

#### Major Required Courses - Aquatic Concentration

Complete all of the following courses:

|          |                                            |   |
|----------|--------------------------------------------|---|
| BIOE 428 | Freshwater Ecology                         | 5 |
| BIOO 340 | Biology and Management of Fishes           | 4 |
| NRSM 385 | Watershed Hydrology                        | 3 |
| WILD 280 | Fisheries Techniques                       | 3 |
| WILD 408 | Aquatic Habitat Conservation & Restoration | 4 |

Complete one of the following courses: 3-4

|            |                              |  |
|------------|------------------------------|--|
| BIOE 406   | Behavior & Evolution         |  |
| BIOM 427   | General Parasitology         |  |
| & BIOM 428 | and General Parasitology Lab |  |
| BIOO 462   | Entomology                   |  |
| WILD 485   | Aquatic Invertebrate Ecology |  |

#### Outside Major Required Courses

Complete all of the following courses:

|             |                                   |   |
|-------------|-----------------------------------|---|
| CHMY 121N   | Introduction to General Chemistry | 4 |
| COMX 111A   | Introduction to Public Speaking   | 3 |
| M 162       | Applied Calculus                  | 4 |
| or M 171    | Calculus I                        |   |
| STAT 216    | Introduction to Statistics        | 4 |
| or WILD 240 | Intro to Biostatistics            |   |

#### Writing in the Disciplines Requirement

Complete any three of the courses from the following lists:

The following courses are required in the Aquatic Concentration:

|          |                                            |  |
|----------|--------------------------------------------|--|
| BIOE 428 | Freshwater Ecology                         |  |
| BIOO 340 | Biology and Management of Fishes           |  |
| WILD 408 | Aquatic Habitat Conservation & Restoration |  |

The following courses are additional options that can also be used to fulfill the Writing in the Disciplines requirement:

|          |                                  |  |
|----------|----------------------------------|--|
| BIOB 483 | Phylogenetics and Evolution      |  |
| BIOE 342 | Field Ecology                    |  |
| BIOE 403 | Comparative Vertebrate Anatomy   |  |
| BIOO 340 | Biology and Management of Fishes |  |
| BIOO 470 | Ornithology                      |  |
| BIOO 475 | Mammalogy                        |  |

|           |                                              |  |
|-----------|----------------------------------------------|--|
| FORS 330  | Forest Ecology                               |  |
| FORS 341  | Timber Harvesting & Roads                    |  |
| FORS 349  | Practice of Silviculture                     |  |
| FORS 440  | Forest Stand Management                      |  |
| NRSM 344  | Ecosystem Science and Restoration Capstone   |  |
| NRSM 349E | Climate Change Ethics and Policy             |  |
| NRSM 379  | Collaborations in Natural Resource Decisions |  |
| NRSM 462  | Rangeland Ecology                            |  |
| NRSM 475  | Environment & International Development      |  |
| PTRM 300  | Recreation Behavior                          |  |
| PTRM 451  | Tourism & Sustainability                     |  |
| PTRM 482  | Wilderness & Protected Area Management       |  |
| WILD 410  | Wildlife Policy                              |  |
| WILD 470  | Conservation of Wildlife Populations         |  |
| WILD 499  | Thesis                                       |  |

**Total Hours**

**74-76**

## Four Year Plan

| Course                           | Title                                       | Hours        |
|----------------------------------|---------------------------------------------|--------------|
| <b>Freshman</b>                  |                                             |              |
| <b>Autumn</b>                    |                                             |              |
| BIOB 160                         | Principles of Living Systems                | 4            |
| & BIOB 161N                      | and Principles of Living Systems Lab        |              |
| CHMY 121N                        | Introduction to General Chemistry           | 4            |
| WRIT 101                         | College Writing I                           | 3-4          |
| or COMX 111A                     | or Introduction to Public Speaking          |              |
| WILD 180                         | Careers in Wildlife Biology                 | 2            |
| Electives/General Education      |                                             | 2-3          |
| <b>Hours</b>                     |                                             | <b>15-17</b> |
| <b>Spring</b>                    |                                             |              |
| M 162                            | Applied Calculus                            | 4            |
| or M 171                         | or Calculus I                               |              |
| BIOB 170N                        | Principles of Biological Diversity          | 3            |
| COMX 111A                        | Introduction to Public Speaking             | 3-4          |
| or WRIT 101                      | or College Writing I                        |              |
| Electives/General Education      |                                             | 5-6          |
| <b>Hours</b>                     |                                             | <b>15-17</b> |
| <b>Sophomore</b>                 |                                             |              |
| <b>Autumn</b>                    |                                             |              |
| STAT 216                         | Introduction to Statistics                  | 4            |
| or WILD 240                      | or Intro to Biostatistics                   |              |
| WILD 280                         | Fisheries Techniques                        | 3            |
| Experiential Learning            |                                             | 2            |
| Electives/General Education      |                                             | 7            |
| <b>Hours</b>                     |                                             | <b>16</b>    |
| <b>Spring</b>                    |                                             |              |
| BIOB 272                         | Genetics and Evolution                      | 4            |
| WILD 274                         | Human Dimensions of Wildlife                | 3            |
| Writing Across Curriculum Course |                                             | 3            |
| Electives/General Education      |                                             | 5            |
| <b>Hours</b>                     |                                             | <b>15</b>    |
| <b>Junior</b>                    |                                             |              |
| <b>Autumn</b>                    |                                             |              |
| BIOE 370                         | General Ecology                             | 5            |
| & BIOE 371                       | and General Ecology Lab (equivalent to 271) |              |
| WILD 346                         | Wildlife Physiological Ecology              | 3            |



|                                                                                     |                                                                                                                                                                                                      |                |
|-------------------------------------------------------------------------------------|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|----------------|
| BIOE 406<br>or BIOM 427 <i>and</i><br>BIOM 428                                      | Behavior & Evolution<br>or General Parasitology <i>and</i> General Parasitology<br>Lab                                                                                                               | 4              |
| Elective/General Education Course                                                   |                                                                                                                                                                                                      | 3              |
| <b>Hours</b>                                                                        |                                                                                                                                                                                                      | <b>15</b>      |
| <b>Spring</b>                                                                       |                                                                                                                                                                                                      |                |
| NRSM 385                                                                            | Watershed Hydrology                                                                                                                                                                                  | 3              |
| BIOO 335                                                                            | Rocky Mountain Flora                                                                                                                                                                                 | 4              |
| BIOO 340                                                                            | Biology and Management of Fishes                                                                                                                                                                     | 4              |
| Electives/General Education                                                         |                                                                                                                                                                                                      | 4              |
| <b>Hours</b>                                                                        |                                                                                                                                                                                                      | <b>15</b>      |
| <b>Senior</b>                                                                       |                                                                                                                                                                                                      |                |
| <b>Autumn</b>                                                                       |                                                                                                                                                                                                      |                |
| NRSM 422<br>or WILD 410<br>or NRSM 427<br>or NRSM 428                               | Natural Resources Policy<br>or Wildlife Policy<br>or Water Policy<br>or Climate Policy                                                                                                               | 3              |
| WILD 494                                                                            | Senior Wildlife Seminar                                                                                                                                                                              | 1              |
| WILD 408                                                                            | Aquatic Habitat Conservation & Restoration                                                                                                                                                           | 4              |
| Electives/General Education                                                         |                                                                                                                                                                                                      | 7              |
| <b>Hours</b>                                                                        |                                                                                                                                                                                                      | <b>15</b>      |
| <b>Spring</b>                                                                       |                                                                                                                                                                                                      |                |
| BIOE 428                                                                            | Freshwater Ecology                                                                                                                                                                                   | 5              |
| WILD 480<br>or BIOB 480<br>or BIOB 486<br>or BIOM 460<br>or NRSM 379<br>or PTRM 300 | The Upshot--Applied Wildlife Management<br>or Conservation Genetics<br>or Genomics<br>or Ecology of Infectious Diseases<br>or Collaborations in Natural Resource Decisions<br>or Recreation Behavior | 3              |
| Electives/General Education                                                         |                                                                                                                                                                                                      | 7              |
| <b>Hours</b>                                                                        |                                                                                                                                                                                                      | <b>15</b>      |
| <b>Total Hours</b>                                                                  |                                                                                                                                                                                                      | <b>121-125</b> |

Last updated Autumn 2025

## Wildlife Biology B.S. - Terrestrial

### General Degree Requirements

To earn a baccalaureate degree, all students must complete successfully, in addition to any other requirements, the University of Montana General Education Requirements. Please refer to the General Education Requirements page (p. 39) for more information.

Additional requirements for graduation can be found on the Degree/Certificate Requirements for Graduation page (p. 36).

Unless otherwise noted in individual program requirements, a minimum grade point average of 2.00 in all work attempted at the University of Montana-Missoula is required for graduation. Please see the Academic Policies and Procedures page (p. 25) for information on how your GPA is calculated.

Courses taken to satisfy the requirements of a major, minor, or certificate program must be completed with a grade of C- or better unless a higher grade is noted in the program requirements.

## Bachelor of Science - Wildlife Biology; Terrestrial Concentration

- This major requires a minimum GPA of 2.5.

## Course Requirements

| Code                                                                                | Title                                                                                                                                                                                 | Hours |
|-------------------------------------------------------------------------------------|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-------|
| <b>Major Required Courses</b>                                                       |                                                                                                                                                                                       |       |
| Complete all of the following courses:                                              |                                                                                                                                                                                       |       |
| BIOB 160                                                                            | Principles of Living Systems                                                                                                                                                          | 3     |
| BIOB 161N                                                                           | Principles of Living Systems Lab                                                                                                                                                      | 1     |
| BIOB 170N                                                                           | Principles of Biological Diversity                                                                                                                                                    | 3     |
| BIOB 272                                                                            | Genetics and Evolution                                                                                                                                                                | 4     |
| BIOE 370                                                                            | General Ecology                                                                                                                                                                       | 3     |
| BIOE 371                                                                            | General Ecology Lab (equivalent to 271)                                                                                                                                               | 2     |
| BIOO 320<br>or BIOO 335                                                             | General Botany<br>Rocky Mountain Flora                                                                                                                                                | 4-5   |
| WILD 180                                                                            | Careers in Wildlife Biology                                                                                                                                                           | 2     |
| WILD 274                                                                            | Human Dimensions of Wildlife                                                                                                                                                          | 3     |
| WILD 346                                                                            | Wildlife Physiological Ecology                                                                                                                                                        | 3     |
| WILD 398                                                                            | Internship (fulfills the Wildlife Biology Experiential Learning requirement. Alternatives are possible. See the Wildlife Biology Advisor.)                                            | 2     |
| WILD 410<br>or NRSM 422<br>or NRSM 427<br>or NRSM 428                               | Wildlife Policy<br>Natural Resources Policy<br>Water Policy<br>Climate Policy                                                                                                         | 3     |
| WILD 480<br>or BIOB 480<br>or BIOB 486<br>or BIOM 460<br>or NRSM 379<br>or PTRM 300 | The Upshot--Applied Wildlife Management<br>Conservation Genetics<br>Genomics<br>Ecology of Infectious Diseases<br>Collaborations in Natural Resource Decisions<br>Recreation Behavior | 3     |
| WILD 494                                                                            | Senior Wildlife Seminar                                                                                                                                                               | 1     |
| <b>Major Required Courses - Terrestrial Concentration</b>                           |                                                                                                                                                                                       |       |
| Complete all of the following courses:                                              |                                                                                                                                                                                       |       |
| NRSM 360<br>or FORS 347                                                             | Rangeland Management<br>Multiple Resource Silviculture                                                                                                                                | 3     |
| WILD 370                                                                            | Wildlife Habitat Conservation & Management                                                                                                                                            | 4     |
| WILD 470                                                                            | Conservation of Wildlife Populations                                                                                                                                                  | 4     |
| Complete two of the following courses:                                              |                                                                                                                                                                                       |       |
| BIOO 340                                                                            | Biology and Management of Fishes                                                                                                                                                      |       |
| BIOO 470                                                                            | Ornithology                                                                                                                                                                           |       |
| BIOO 475                                                                            | Mammalogy                                                                                                                                                                             |       |
| <b>Outside Major Required Courses</b>                                               |                                                                                                                                                                                       |       |
| Complete all of the following courses:                                              |                                                                                                                                                                                       |       |
| CHMY 121N                                                                           | Introduction to General Chemistry                                                                                                                                                     | 4     |
| COMX 111A                                                                           | Introduction to Public Speaking                                                                                                                                                       | 3     |
| M 162<br>or M 171                                                                   | Applied Calculus<br>Calculus I                                                                                                                                                        | 4     |
| STAT 216<br>or WILD 240                                                             | Introduction to Statistics<br>Intro to Biostatistics                                                                                                                                  | 4     |
| <b>Writing in the Disciplines Requirement</b>                                       |                                                                                                                                                                                       |       |
| Complete any three of the courses from the following lists:                         |                                                                                                                                                                                       |       |

The following courses are required in the Terrestrial Concentration:

WILD 470 Conservation of Wildlife Populations

And two of the following three:

BIOO 340 Biology and Management of Fishes

BIOO 470 Ornithology

BIOO 475 Mammalogy

The following courses are additional options that can also be used to fulfill the Writing in the Disciplines requirement:

BIOB 483 Phylogenics and Evolution

BIOE 342 Field Ecology

BIOE 403 Comparative Vertebrate Anatomy

BIOO 340 Biology and Management of Fishes

BIOO 470 Ornithology

BIOO 475 Mammalogy

FORS 330 Forest Ecology

FORS 341 Timber Harvesting & Roads

FORS 349 Practice of Silviculture

FORS 440 Forest Stand Management

NRSM 344 Ecosystem Science and Restoration Capstone

NRSM 349E Climate Change Ethics and Policy

NRSM 379 Collaborations in Natural Resource Decisions

NRSM 462 Rangeland Ecology

NRSM 475 Environment & International Development

PTRM 300 Recreation Behavior

PTRM 451 Tourism & Sustainability

PTRM 482 Wilderness & Protected Area Management

WILD 410 Wildlife Policy

WILD 470 Conservation of Wildlife Populations

WILD 499 Thesis

**Total Hours**

**71-72**

## Four Year Plan

| Course                      | Title                                                                | Hours        |
|-----------------------------|----------------------------------------------------------------------|--------------|
| <b>Freshman</b>             |                                                                      |              |
| <b>Autumn</b>               |                                                                      |              |
| BIOB 160<br>& BIOB 161N     | Principles of Living Systems<br>and Principles of Living Systems Lab | 4            |
| CHMY 121N                   | Introduction to General Chemistry                                    | 4            |
| WRIT 101<br>or COMX 111A    | College Writing I<br>or Introduction to Public Speaking              | 3-4          |
| WILD 180                    | Careers in Wildlife Biology                                          | 2            |
| Electives/General Education |                                                                      | 3            |
| <b>Hours</b>                |                                                                      | <b>16-17</b> |
| <b>Spring</b>               |                                                                      |              |
| M 162<br>or M 171           | Applied Calculus<br>or Calculus I                                    | 4            |
| BIOB 170N                   | Principles of Biological Diversity                                   | 3            |
| COMX 111A<br>or WRIT 101    | Introduction to Public Speaking<br>or College Writing I              | 3-4          |
| Electives/General Education |                                                                      | 5            |
| <b>Hours</b>                |                                                                      | <b>15-16</b> |

### Sophomore

#### Autumn

|                         |                                                         |           |
|-------------------------|---------------------------------------------------------|-----------|
| STAT 216<br>or WILD 240 | Introduction to Statistics<br>or Intro to Biostatistics | 4         |
|                         | Experiential Learning                                   | 2         |
|                         | Electives/General Education                             | 9         |
| <b>Hours</b>            |                                                         | <b>15</b> |

#### Spring

|              |                                  |           |
|--------------|----------------------------------|-----------|
| BIOB 272     | Genetics and Evolution           | 4         |
| WILD 274     | Human Dimensions of Wildlife     | 3         |
|              | Writing Across Curriculum Course | 3         |
|              | Electives/General Education      | 5         |
| <b>Hours</b> |                                  | <b>15</b> |

### Junior

#### Autumn

|                         |                                                              |           |
|-------------------------|--------------------------------------------------------------|-----------|
| BIOE 370<br>& BIOE 371  | General Ecology<br>& General Ecology Lab (equivalent to 271) | 5         |
| WILD 346                | Wildlife Physiological Ecology                               | 3         |
| NRSM 360<br>or FORS 347 | Rangeland Management<br>or Multiple Resource Silviculture    | 3         |
|                         | Electives/General Education                                  | 4         |
| <b>Hours</b>            |                                                              | <b>15</b> |

#### Spring

|                         |                                                            |           |
|-------------------------|------------------------------------------------------------|-----------|
| BIOO 335<br>or BIOO 320 | Rocky Mountain Flora<br>or General Botany                  | 4         |
|                         | Two of the following courses: BIOO 340, BIOO 475, BIOO 470 | 8         |
|                         | Electives/General Education                                | 3         |
| <b>Hours</b>            |                                                            | <b>15</b> |

### Senior

#### Autumn

|                                                       |                                                                                        |           |
|-------------------------------------------------------|----------------------------------------------------------------------------------------|-----------|
| WILD 370                                              | Wildlife Habitat Conservation & Management                                             | 4         |
| WILD 494                                              | Senior Wildlife Seminar                                                                | 1         |
| NRSM 422<br>or WILD 410<br>or NRSM 427<br>or NRSM 428 | Natural Resources Policy<br>or Wildlife Policy<br>or Water Policy<br>or Climate Policy | 3         |
|                                                       | Electives/General Education                                                            | 7         |
| <b>Hours</b>                                          |                                                                                        | <b>15</b> |

#### Spring

|                                                                                     |                                                                                                                                                                                                      |                |
|-------------------------------------------------------------------------------------|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|----------------|
| WILD 470                                                                            | Conservation of Wildlife Populations                                                                                                                                                                 | 4              |
| WILD 480<br>or BIOB 480<br>or BIOB 486<br>or BIOM 460<br>or NRSM 379<br>or PTRM 300 | The Upshot--Applied Wildlife Management<br>or Conservation Genetics<br>or Genomics<br>or Ecology of Infectious Diseases<br>or Collaborations in Natural Resource Decisions<br>or Recreation Behavior | 3              |
|                                                                                     | Electives/General Education                                                                                                                                                                          | 8              |
| <b>Hours</b>                                                                        |                                                                                                                                                                                                      | <b>15</b>      |
| <b>Total Hours</b>                                                                  |                                                                                                                                                                                                      | <b>121-123</b> |

*Last updated Autumn 2025*

## Ecological Restoration Minor General Degree Requirements

To earn a baccalaureate degree, all students must complete successfully, in addition to any other requirements, the University of Montana General Education Requirements. Please refer to the General Education Requirements page (p. 39) for more information.

Additional requirements for graduation can be found on the Degree/Certificate Requirements for Graduation page (p. 36).

Unless otherwise noted in individual program requirements, a minimum grade point average of 2.00 in all work attempted at the University of Montana-Missoula is required for graduation. Please see the Academic Policies and Procedures page (p. 25) for information on how your GPA is calculated.

Courses taken to satisfy the requirements of a major, minor, or certificate program must be completed with a grade of C- or better unless a higher grade is noted in the program requirements.

## Minor - Ecological Restoration

### Course Requirements

| Code                                   | Title                            | Hours |
|----------------------------------------|----------------------------------|-------|
| <b>Lower-Division Required Courses</b> |                                  |       |
| Complete all of the following courses: |                                  |       |
| NRSM 210N                              | Soils, Water and Climate         | 3     |
| NRSM 265                               | Ecosystem Restoration            | 3     |
| Complete one of the following courses: |                                  | 3-4   |
| FORS 201                               | Forest Biometrics                |       |
| STAT 216                               | Introduction to Statistics       |       |
| WILD 240                               | Intro to Biostatistics           |       |
| <b>Upper-Division Required Courses</b> |                                  |       |
| Complete all of the following courses: |                                  |       |
| NRSM 385                               | Watershed Hydrology              | 3     |
| or BIOO 335                            | Rocky Mountain Flora             |       |
| NRSM 465                               | Restoration Ecology              | 3     |
| Complete one of the following courses: |                                  | 3-5   |
| FORS 330                               | Forest Ecology                   |       |
| BIOE 370                               | General Ecology                  |       |
| BIOE 428                               | Freshwater Ecology               |       |
| NRSM 462                               | Rangeland Ecology                |       |
| <b>Natural Science Electives</b>       |                                  |       |
| Complete one of the following courses: |                                  | 3-5   |
| BIOE 342                               | Field Ecology                    |       |
| BIOE 370                               | General Ecology                  |       |
| BIOE 416                               | Alpine Ecology                   |       |
| BIOE 428                               | Freshwater Ecology               |       |
| BIOE 439                               | Stream Ecology                   |       |
| BIOE 448                               | Terrestrial Plant Ecology        |       |
| BIOE 451                               | Landscape Ecology                |       |
| BIOE 453                               | Lake Ecology                     |       |
| BIOE 458                               | Forest and Fire Ecology          |       |
| BIOO 335                               | Rocky Mountain Flora             |       |
| BIOO 340                               | Biology and Management of Fishes |       |
| BIOO 433                               | Plant Physiology                 |       |
| FORS 202                               | Forest Mensuration               |       |
| FORS 330                               | Forest Ecology                   |       |
| FORS 331                               | Wildland Fuel Management         |       |
| FORS 333                               | Fire Ecology                     |       |
| FORS 347                               | Multiple Resource Silviculture   |       |
| GEO 420                                | Hydrogeology                     |       |
| GEO 460                                | Process Geomorphology            |       |
| NRSM 385                               | Watershed Hydrology              |       |

|                                        |                                              |              |
|----------------------------------------|----------------------------------------------|--------------|
| NRSM 408                               | Natural Climate Solutions                    |              |
| NRSM 415                               | Environmental Soil Science                   |              |
| NRSM 418                               | Ecosystem Climatology                        |              |
| NRSM 462                               | Rangeland Ecology                            |              |
| WILD 470                               | Conservation of Wildlife Populations         |              |
| WILD 485                               | Aquatic Invertebrate Ecology                 |              |
| <b>Social Science Electives</b>        |                                              |              |
| Complete one of the following courses: |                                              | 3            |
| ECNS 433                               | Economics of the Environment                 |              |
| FORS 320                               | Forest Environmental Economics               |              |
| GPHY 335                               | Water and Sustainability                     |              |
| NRSM 326                               | Climate and Society                          |              |
| NRSM 349E                              | Climate Change Ethics and Policy             |              |
| NRSM 379                               | Collaborations in Natural Resource Decisions |              |
| NRSM 389E                              | Ethics and Sustainability                    |              |
| NRSM 422                               | Natural Resources Policy                     |              |
| NRSM 475                               | Environment & International Development      |              |
| PTRM 482                               | Wilderness & Protected Area Management       |              |
| <b>Total Hours</b>                     |                                              | <b>24-29</b> |

## Environmental Studies Minor

### General Degree Requirements

To earn a baccalaureate degree, all students must complete successfully, in addition to any other requirements, the University of Montana General Education Requirements. Please refer to the General Education Requirements page (p. 39) for more information.

Additional requirements for graduation can be found on the Degree/Certificate Requirements for Graduation page (p. 36).

Unless otherwise noted in individual program requirements, a minimum grade point average of 2.00 in all work attempted at the University of Montana-Missoula is required for graduation. Please see the Academic Policies and Procedures page (p. 25) for information on how your GPA is calculated.

Courses taken to satisfy the requirements of a major, minor, or certificate program must be completed with a grade of C- or better unless a higher grade is noted in the program requirements.

## Minor - Environmental Studies

### Course Requirements

| Code                                         | Title                                  | Hours |
|----------------------------------------------|----------------------------------------|-------|
| <b>Lower-Division Core Courses</b>           |                                        |       |
| Complete all of the following courses:       |                                        |       |
| ENSC 105N                                    | Environmental Science                  | 3     |
| ENST 225S                                    | Sustainable Communities                | 3     |
| ENST 230H                                    | Nature and Society                     | 3     |
| <b>Upper-Division Electives</b>              |                                        |       |
| Complete 9 credits of the following courses: |                                        | 9     |
| COMX 347                                     | Rhetoric, Nature, and Environmentalism |       |
| ECNS 433                                     | Economics of the Environment           |       |

|                                        |                                                              |
|----------------------------------------|--------------------------------------------------------------|
| ECNS 445                               | Introduction to Environmental Economics & Climate Change     |
| ENSC 398                               | Internship                                                   |
| ENSC 470                               | Agroecology                                                  |
| ENSC 474                               | Environmental Analytics                                      |
| ENSC 491                               | Special Topics/Experimental Courses                          |
| ENSC 492                               | Independent Study                                            |
| ENSC 495                               | Field Study                                                  |
| ENST 335L                              | Literature of the Earth                                      |
| ENST 350                               | Energy and Climate                                           |
| ENST 367                               | Environmental Politics & Policies                            |
| ENST 373A                              | Writing the Earth: Workshop on Nature, Environment & Justice |
| ENST 391                               | Special Topics/Experimental Courses                          |
| ENST 395                               | Field Studies: Environmental Studies                         |
| ENST 398                               | Internship                                                   |
| ENST 410                               | TEK of Indigenous Peoples                                    |
| ENST 420                               | US Environmental Movement                                    |
| ENST 427                               | Social Issues: The Mekong Delta                              |
| ENST 437                               | Climate Change: Mekong Delta                                 |
| ENST 472                               | General Science: Conservation Education                      |
| ENST 476                               | Community Sustainability in Practice                         |
| ENST 480                               | Food Justice and Sustainability                              |
| ENST 487                               | Globalization, Justice & Environment                         |
| ENST 489S                              | Environmental Justice Issues & Solutions                     |
| ENST 491                               | Special Topics/Experimental Courses                          |
| ENST 492                               | Independent Study                                            |
| ENST 494                               | Seminar/Workshop                                             |
| ENST 495                               | Field Work/Practicum (PEAS Farm)                             |
| ENST 499                               | Senior Thesis/Capstone                                       |
| GEO 318                                | Earth's Changing Climate                                     |
| GPHY 421                               | Sustainable Cities                                           |
| GPHY 466                               | Environmental Planning                                       |
| NRSM 326                               | Climate and Society                                          |
| NRSM 427                               | Water Policy                                                 |
| PHL 323                                | Ethics of Climate Change                                     |
| PHL 415                                | Issues in the Anthropocene                                   |
| PHL 422                                | Environmental Philosophy                                     |
| PHL 423                                | Science and the Environment                                  |
| <b>Ecology</b>                         |                                                              |
| Complete one of the following courses: |                                                              |
| BIOE 172N                              | Introductory Ecology                                         |
| BIOE 370                               | General Ecology                                              |
| ENSC 360                               | Applied Ecology                                              |
| FORS 330                               | Forest Ecology                                               |
| <b>Total Hours</b>                     |                                                              |
| 21                                     |                                                              |

## Fire Sciences and Management Minor

### General Degree Requirements

To earn a baccalaureate degree, all students must complete successfully, in addition to any other requirements, the University of Montana

General Education Requirements. Please refer to the General Education Requirements page (p. 39) for more information.

Additional requirements for graduation can be found on the Degree/Certificate Requirements for Graduation page (p. 36).

Unless otherwise noted in individual program requirements, a minimum grade point average of 2.00 in all work attempted at the University of Montana-Missoula is required for graduation. Please see the Academic Policies and Procedures page (p. 25) for information on how your GPA is calculated.

Courses taken to satisfy the requirements of a major, minor, or certificate program must be completed with a grade of C- or better unless a higher grade is noted in the program requirements.

## Minor - Fire Sciences and Management

### Course Requirements

| Code                                         | Title                                                                                             | Hours |
|----------------------------------------------|---------------------------------------------------------------------------------------------------|-------|
| <b>Required Courses</b>                      |                                                                                                   |       |
| Complete all of the following courses:       |                                                                                                   |       |
| FORS 230                                     | Fire Management & Environmental Change                                                            | 3     |
| FORS 333                                     | Fire Ecology                                                                                      | 3     |
| <b>Ecology Course</b>                        |                                                                                                   |       |
| Complete one of the following courses:       |                                                                                                   | 3     |
| BIOE 370                                     | General Ecology                                                                                   |       |
| FORS 330                                     | Forest Ecology                                                                                    |       |
| NRSM 462                                     | Rangeland Ecology                                                                                 |       |
| <b>Practicum or Planning Course</b>          |                                                                                                   |       |
| Complete one of the following courses:       |                                                                                                   | 3     |
| FORS 440                                     | Forest Stand Management                                                                           |       |
| FORS 495                                     | Wildland RxFire Practicum                                                                         |       |
| FORS 498                                     | Internship (must be approved by fire minor advisor prior to registration and taken for 3 credits) |       |
| NRSM 495                                     | Ecosystem Science and Restoration Practicum                                                       |       |
| PTRM 485                                     | Recreation Planning                                                                               |       |
| WILD 480                                     | The Upshot--Applied Wildlife Management                                                           |       |
| <b>Meteorology or Climate Course</b>         |                                                                                                   |       |
| Complete one of the following courses:       |                                                                                                   | 3     |
| ERTH 303N                                    | Weather and Climate                                                                               |       |
| NRSM 418                                     | Ecosystem Climatology                                                                             |       |
| <b>Measurements &amp; Analysis Electives</b> |                                                                                                   |       |
| Complete one of the following courses:       |                                                                                                   | 3     |
| FORS 202                                     | Forest Mensuration                                                                                |       |
| FORS 350                                     | Forestry Apps of GIS                                                                              |       |
| FORS 351                                     | Env Remote Sensing                                                                                |       |
| <b>Natural/Management Science Electives</b>  |                                                                                                   |       |
| Complete one of the following courses:       |                                                                                                   | 3     |
| FORS 331                                     | Wildland Fuel Management                                                                          |       |
| FORS 347                                     | Multiple Resource Silviculture                                                                    |       |
| FORS 349                                     | Practice of Silviculture                                                                          |       |
| GPHY 317                                     | Geomorphology                                                                                     |       |
| NRSM 385                                     | Watershed Hydrology                                                                               |       |

|                                        |                                                       |           |
|----------------------------------------|-------------------------------------------------------|-----------|
| NRSM 465                               | Restoration Ecology                                   |           |
| WILD 370                               | Wildlife Habitat Conservation & Management            |           |
| <b>Social Science Electives</b>        |                                                       |           |
| Complete one of the following courses: |                                                       | 3         |
| FORS 320                               | Forest Environmental Economics                        |           |
| NASX 303E                              | Ecological Perspectives in Native American Traditions |           |
| NRSM 379                               | Collaborations in Natural Resource Decisions          |           |
| NRSM 389E                              | Ethics and Sustainability                             |           |
| NRSM 422                               | Natural Resources Policy                              |           |
| PTRM 482                               | Wilderness & Protected Area Management                |           |
| <b>Total Hours</b>                     |                                                       | <b>24</b> |

## Geography Minor

### General Degree Requirements

To earn a baccalaureate degree, all students must complete successfully, in addition to any other requirements, the University of Montana General Education Requirements. Please refer to the General Education Requirements page (p. 39) for more information.

Additional requirements for graduation can be found on the Degree/Certificate Requirements for Graduation page (p. 36).

Unless otherwise noted in individual program requirements, a minimum grade point average of 2.00 in all work attempted at the University of Montana-Missoula is required for graduation. Please see the Academic Policies and Procedures page (p. 25) for information on how your GPA is calculated.

Courses taken to satisfy the requirements of a major, minor, or certificate program must be completed with a grade of C- or better unless a higher grade is noted in the program requirements.

### Minor - Geography Course Requirements

| Code                                   | Title                                                                      | Hours |
|----------------------------------------|----------------------------------------------------------------------------|-------|
| <b>Introduction to Geography</b>       |                                                                            |       |
| Complete all of the following courses: |                                                                            |       |
| GPHY 111N                              | Intro to Physical Geography: Climate, Landforms, and Vegetation            | 3     |
| GPHY 112N                              | Intro to Physical Geography Laboratory: Climate, Landforms, and Vegetation | 1     |
| GPHY 121S                              | Human Geography                                                            | 3     |
| <b>Regional Core</b>                   |                                                                            |       |
| Complete one of the following courses: |                                                                            | 3     |
| GPHY 141S                              | Geography of World Regions                                                 |       |
| GPHY 241                               | Montana                                                                    |       |
| GPHY 245                               | The Middle East                                                            |       |
| GPHY 348                               | Field Studies in Geography                                                 |       |
| <b>Geographic Methods</b>              |                                                                            |       |
| Complete one of the following courses: |                                                                            | 3     |
| GPHY 284                               | Intro to GIS and Cartography                                               |       |

GPHY 385 Field Techniques

#### Upper-Division Systematic Geography

Complete at least 1 course from 2 of the following 3 subcategories: 6

|                                      |                                   |
|--------------------------------------|-----------------------------------|
| <b>Physical Geography</b>            |                                   |
| ERTH 303N                            | Weather and Climate               |
| GPHY 311N                            | Biogeography                      |
| GPHY 317                             | Geomorphology                     |
| GPHY 525                             | Advanced Physical Geography       |
| <b>Geography and Society</b>         |                                   |
| GPHY 323S                            | Economic Geography of Rural Areas |
| GPHY 421                             | Sustainable Cities                |
| <b>Human Environment Interaction</b> |                                   |
| GPHY 335                             | Water and Sustainability          |
| GPHY 338                             | Mountains and Society             |
| GPHY 433                             | Community Resilience              |

**Total Hours** 19

## Geography Education Minor

- This minor contains course requirements designed to meet state standards. Those interested in teaching in K-12 schools must complete the education/teaching concentration of a major in a teaching content area plus the Teacher Education Program through the Department of Teaching and Learning. Additional teaching areas can be added through completion of the education/teaching concentration of a major or education/teaching minor in that content area.
  - Secondary Education Licensure Program (<https://www.umt.edu/education/departments/teaching-and-learning/tep/default.php>)
  - Licensure Degree Requirements (p. 151)
- To complete this minor, you need to contact the Teaching and Learning Department. Approvals for this minor must come from the Teaching and Learning Department.
- Individuals completing this minor must also complete the education/teaching concentration of a major in another teaching content area.

### General Degree Requirements

To earn a baccalaureate degree, all students must complete successfully, in addition to any other requirements, the University of Montana General Education Requirements. Please refer to the General Education Requirements page (p. 39) for more information.

Additional requirements for graduation can be found on the Degree/Certificate Requirements for Graduation page (p. 36).

Unless otherwise noted in individual program requirements, a minimum grade point average of 2.00 in all work attempted at the University of Montana-Missoula is required for graduation. Please see the Academic Policies and Procedures page (p. 25) for information on how your GPA is calculated.

Courses taken to satisfy the requirements of a major, minor, or certificate program must be completed with a grade of C- or better unless a higher grade is noted in the program requirements.



## Minor - Geography Education

### Course Requirements

| Code                                                                | Title                                                                      | Hours     |
|---------------------------------------------------------------------|----------------------------------------------------------------------------|-----------|
| <b>Introduction to Geography</b>                                    |                                                                            |           |
| Complete all of the following courses:                              |                                                                            |           |
| GPHY 111N                                                           | Intro to Physical Geography: Climate, Landforms, and Vegetation            | 3         |
| GPHY 112N                                                           | Intro to Physical Geography Laboratory: Climate, Landforms, and Vegetation | 1         |
| GPHY 121S                                                           | Human Geography                                                            | 3         |
| <b>Regional Core</b>                                                |                                                                            |           |
| Complete one of the following courses:                              |                                                                            | 3         |
| GPHY 141S                                                           | Geography of World Regions                                                 | 3         |
| GPHY 241                                                            | Montana                                                                    |           |
| GPHY 245                                                            | The Middle East                                                            |           |
| GPHY 348                                                            | Field Studies in Geography                                                 |           |
| <b>Geographic Methods</b>                                           |                                                                            |           |
| Complete one of the following courses:                              |                                                                            | 3         |
| GPHY 284                                                            | Intro to GIS and Cartography                                               | 3         |
| GPHY 385                                                            | Field Techniques                                                           |           |
| <b>Upper-Division Systematic Geography</b>                          |                                                                            |           |
| Complete at least 1 course from 2 of the following 3 subcategories: |                                                                            | 6         |
| <b>Physical Geography</b>                                           |                                                                            |           |
| ERTH 303N                                                           | Weather and Climate                                                        | 6         |
| GPHY 311N                                                           | Biogeography                                                               |           |
| GPHY 317                                                            | Geomorphology                                                              |           |
| GPHY 525                                                            | Advanced Physical Geography                                                |           |
| <b>Geography and Society</b>                                        |                                                                            |           |
| GPHY 323S                                                           | Economic Geography of Rural Areas                                          | 6         |
| GPHY 421                                                            | Sustainable Cities                                                         |           |
| <b>Human Environment Interaction</b>                                |                                                                            |           |
| GPHY 335                                                            | Water and Sustainability                                                   | 6         |
| GPHY 338                                                            | Mountains and Society                                                      |           |
| GPHY 433                                                            | Community Resilience                                                       |           |
| <b>Teaching Methods</b>                                             |                                                                            |           |
| EDU 497                                                             | Teaching and Assessing (Methods: 5-12 Social Studies)                      | 3         |
| <b>Total Hours</b>                                                  |                                                                            | <b>22</b> |

### Secondary Teaching Licensure

For endorsement to teach this subject, a student also must gain admission to the Teacher Education Program and meet all the requirements for secondary teaching licensure (p. 151). For more information, see the Teaching and Learning Department webpage (<https://www.umt.edu/education/departments/currinst/default.php>).

## Geosciences Minor

### General Degree Requirements

To earn a baccalaureate degree, all students must complete successfully, in addition to any other requirements, the University of Montana

General Education Requirements. Please refer to the General Education Requirements page (p. 39) for more information.

Additional requirements for graduation can be found on the Degree/Certificate Requirements for Graduation page (p. 36).

Unless otherwise noted in individual program requirements, a minimum grade point average of 2.00 in all work attempted at the University of Montana-Missoula is required for graduation. Please see the Academic Policies and Procedures page (p. 25) for information on how your GPA is calculated.

Courses taken to satisfy the requirements of a major, minor, or certificate program must be completed with a grade of C- or better unless a higher grade is noted in the program requirements.

## Minor - Geosciences

### Course Requirements

| Code                                                                             | Title                                | Hours     |
|----------------------------------------------------------------------------------|--------------------------------------|-----------|
| <b>Lower-Division Core Courses</b>                                               |                                      |           |
| Complete all of the following courses:                                           |                                      |           |
| GEO 101N                                                                         | Introduction to Physical Geology     | 3         |
| GEO 102N                                                                         | Introduction to Physical Geology Lab | 1         |
| GEO 201                                                                          | The Rocky Planet                     | 4         |
| <b>Electives</b>                                                                 |                                      |           |
| Complete an additional 10 credits in Geosciences courses numbered 200 and above. |                                      |           |
| <b>Total Hours</b>                                                               |                                      | <b>18</b> |

## Mountain Studies Minor

Mountain Studies is an interdisciplinary field of study focusing on the physical and human dimensions of mountain environments. Coursework in the minor emphasizes biophysical-ecological and mountain-society interactions, including a critical analysis of the processes of change and influence shaping local and regional mountain environments today. The minor in Mountain Studies takes advantage of existing faculty expertise and an array of courses to provide students with a science-based curriculum and global perspective. Students pursuing the minor in mountain studies will develop knowledge and skills appropriate for graduate study and for working with government and non-government agencies and groups. A field-based experience, either domestically or in an international setting, is encouraged.

## General Degree Requirements

To earn a baccalaureate degree, all students must complete successfully, in addition to any other requirements, the University of Montana General Education Requirements. Please refer to the General Education Requirements page (p. 39) for more information.

Additional requirements for graduation can be found on the Degree/Certificate Requirements for Graduation page (p. 36).

Unless otherwise noted in individual program requirements, a minimum grade point average of 2.00 in all work attempted at the University of Montana-Missoula is required for graduation. Please see the Academic Policies and Procedures page (p. 25) for information on how your GPA is calculated.

Courses taken to satisfy the requirements of a major, minor, or certificate program must be completed with a grade of C- or better unless a higher grade is noted in the program requirements.

## Minor - Mountain Studies

- In addition to completing the requirements for a major in any discipline, students electing the minor in Mountain Studies must have a GPA of 3.0 in their major and complete a minimum of 18 additional credits in this minor.
- Each student must complete the core course, then complete 15 additional credits that support the student's academic interests in Mountain Studies. All elective courses must be approved by the program director.
- The Mountain Studies minor requires at least 6 credits in courses numbered 300 and above.
- Students can receive credit for special topics courses, relevant experiential learning and internship experiences, and for relevant courses taken at other universities.

### Course Requirements

| Code                                            | Title                                    | Hours |
|-------------------------------------------------|------------------------------------------|-------|
| <b>Core Course</b>                              |                                          |       |
| Complete the following course:                  |                                          |       |
| GPHY 338                                        | Mountains and Society                    | 3     |
| <b>Electives</b>                                |                                          |       |
| Complete 15 credits from the following courses: |                                          |       |
| BIOE 342                                        | Field Ecology                            | 15    |
| BIOE 416                                        | Alpine Ecology                           |       |
| BIOE 439                                        | Stream Ecology                           |       |
| BIOE 440                                        | Conservation Biology                     |       |
| BIOE 451                                        | Landscape Ecology                        |       |
| BIOE 453                                        | Lake Ecology                             |       |
| BIOE 458                                        | Forest and Fire Ecology                  |       |
| BIOO 335                                        | Rocky Mountain Flora                     |       |
| ENST 410                                        | TEK of Indigenous Peoples                |       |
| ERTH 303N                                       | Weather and Climate                      |       |
| FORS 330                                        | Forest Ecology                           |       |
| FORS 333                                        | Fire Ecology                             |       |
| GEO 101N                                        | Introduction to Physical Geology         |       |
| GEO 107N                                        | Natural Disasters                        |       |
| GEO 201                                         | The Rocky Planet                         |       |
| GEO 202                                         | The Water Planet                         |       |
| GEO 318                                         | Earth's Changing Climate                 |       |
| GEO 421                                         | Hydrology                                |       |
| GEO 460                                         | Process Geomorphology                    |       |
| GEO 488                                         | Snow, Ice and Climate Change             |       |
| GPHY 141S                                       | Geography of World Regions               |       |
| GPHY 241                                        | Montana                                  |       |
| GPHY 317                                        | Geomorphology                            |       |
| GPHY 323S                                       | Economic Geography of Rural Areas        |       |
| GPHY 474                                        | UAV Remote Sensing for Field Ecology     |       |
| NASX 351                                        | Traditional Ecological Knowledge         |       |
| NRSM 121S                                       | Environmental Science and Sustainability |       |
| NRSM 281                                        | Science of Climate Change                |       |

|           |                                                      |
|-----------|------------------------------------------------------|
| NRSM 311  | Field Studies in Ecosystems and Human Communities    |
| NRSM 385  | Watershed Hydrology                                  |
| NRSM 346  | Forest and Communities                               |
| NRSM 374  | Yellowstone Studies                                  |
| NRSM 391  | Special Topics                                       |
| PTRM 217S | Parks & Outdoor Recreation Management                |
| PTRM 353  | Tourism, Livelihoods and Sustainability in Mountains |
| PTRM 356  | Wilderness Rescue and Survival                       |
| PTRM 418  | Winter Wilderness Field Studies                      |
| PTRM 482  | Wilderness & Protected Area Management               |

**Total Hours**

**18**

## Wilderness Studies Minor

**Andrea Stephens, Director of Undergraduate and Field Education for the Wilderness Institute.**

The Wilderness Studies minor is an interdisciplinary undergraduate program that combines campus- and field-based experiences. Students investigate sustainability, wildland conservation, and the human-environment relationship through the lenses of ecology, humanities, arts, and social sciences. Students earn the Wilderness Studies minor by completing the Wilderness and Civilization program, an 18 credit fall semester immersion program. Wilderness and Civilization is open to all majors. Students must apply for the program, which is limited to 25 students each year. Applicants must have sophomore standing or higher and a cumulative GPA  $\geq 3.0$  for all college work. Applications are due by April 1 and are available online on the Wilderness Institute website (<http://www.cfc.umt.edu/wi/>).

## General Degree Requirements

To earn a baccalaureate degree, all students must complete successfully, in addition to any other requirements, the University of Montana General Education Requirements. Please refer to the General Education Requirements page (p. 39) for more information.

Additional requirements for graduation can be found on the Degree/Certificate Requirements for Graduation page (p. 36).

Unless otherwise noted in individual program requirements, a minimum grade point average of 2.00 in all work attempted at the University of Montana-Missoula is required for graduation. Please see the Academic Policies and Procedures page (p. 25) for information on how your GPA is calculated.

Courses taken to satisfy the requirements of a major, minor, or certificate program must be completed with a grade of C- or better unless a higher grade is noted in the program requirements.

## Minor - Wilderness Studies

### Course Requirements

| Code                                          | Title                                     | Hours |
|-----------------------------------------------|-------------------------------------------|-------|
| <b>Complete all of the following courses:</b> |                                           |       |
| NRSM 271N                                     | Conservation Ecology                      | 3     |
| NRSM 273                                      | Wilderness and Civilization Field Studies | 4     |

|                                             |                                                       |           |
|---------------------------------------------|-------------------------------------------------------|-----------|
| NRSM 373                                    | Wilderness and Civilization                           | 2         |
| <b>Complete 3 of the following courses:</b> |                                                       | <b>9</b>  |
| ARTZ 314A                                   | Environmental Drawing                                 |           |
| ARTZ 321                                    | Painting II                                           |           |
| ENST 410                                    | TEK of Indigenous Peoples                             |           |
| LIT 280L                                    | Ecology of Literature                                 |           |
| NASX 303E                                   | Ecological Perspectives in Native American Traditions |           |
| NRSM 345                                    | Watershed Dynamics and Management Issues              |           |
| NRSM 370S                                   | Wildland Conservation Policy/Governance               |           |
| NRSM 398                                    | Internship                                            |           |
| <b>Total Hours</b>                          |                                                       | <b>18</b> |

## Wildlife Biology Minor

### General Degree Requirements

To earn a baccalaureate degree, all students must complete successfully, in addition to any other requirements, the University of Montana General Education Requirements. Please refer to the General Education Requirements page (p. 39) for more information.

Additional requirements for graduation can be found on the Degree/Certificate Requirements for Graduation page (p. 36).

Unless otherwise noted in individual program requirements, a minimum grade point average of 2.00 in all work attempted at the University of Montana-Missoula is required for graduation. Please see the Academic Policies and Procedures page (p. 25) for information on how your GPA is calculated.

Courses taken to satisfy the requirements of a major, minor, or certificate program must be completed with a grade of C- or better unless a higher grade is noted in the program requirements.

## Minor - Wildlife Biology

### Course Requirements

| Code                                                                                 | Title                                  | Hours        |
|--------------------------------------------------------------------------------------|----------------------------------------|--------------|
| <b>Complete all of the following courses:</b>                                        |                                        |              |
| BIOB 160                                                                             | Principles of Living Systems           | 3            |
| BIOB 170N                                                                            | Principles of Biological Diversity     | 3            |
| BIOB 171N                                                                            | Principles of Biological Diversity Lab | 2            |
| BIOB 272                                                                             | Genetics and Evolution                 | 4            |
| <b>Complete one of the following courses:</b>                                        |                                        | <b>2-3</b>   |
| WILD 105N                                                                            | Wildlife & People                      |              |
| WILD 180                                                                             | Careers in Wildlife Biology            |              |
| <b>Complete one 200-level or greater WILD course</b>                                 |                                        | <b>2-4</b>   |
| <b>Complete one upper-division course chosen from BIOE, BIOO, NRSM, PTRM or WILD</b> |                                        | <b>3-4</b>   |
| <b>Total Hours</b>                                                                   |                                        | <b>19-23</b> |

## Environmental and Nature Writing Certificate

The Certificate in Environmental and Nature Writing (ENW) offers students multiple course opportunities to practice and improve their understanding of and skills in writing about nature and the environment, as well as in evaluating and critiquing such writing. It provides hands-on internship experiences with a biannual environmental literary journal and an annual community reading series, both run by EVST graduate students and advised by EVST faculty.

### General Certificate Requirements

Additional requirements for graduation can be found on the Degree/Certificate Requirements for Graduation page (p. 36).

Unless otherwise noted in individual program requirements, a minimum grade point average of 2.00 in all work attempted at the University of Montana-Missoula is required for graduation. Please see the Academic Policies and Procedures page (p. 25) for information on how your GPA is calculated.

Courses taken to satisfy the requirements of a major, minor, or certificate program must be completed with a grade of C- or better unless a higher grade is noted in the program requirements.

## Post-Secondary Certificate - Environmental and Nature Writing

### Course Requirements

| Code                                                | Title                                                        | Hours     |
|-----------------------------------------------------|--------------------------------------------------------------|-----------|
| <b>Required Courses</b>                             |                                                              |           |
| <b>Complete all of the following courses:</b>       |                                                              |           |
| ENST 335L                                           | Literature of the Earth                                      | 3         |
| ENST 373A                                           | Writing the Earth: Workshop on Nature, Environment & Justice | 3         |
| ENST 398                                            | Internship                                                   | 3         |
| <b>Electives</b>                                    |                                                              |           |
| <b>Complete 3 credits of the following courses:</b> |                                                              | <b>3</b>  |
| ENST 320E                                           | Earth Ethics                                                 |           |
| ENST 573                                            | Environmental Writing <sup>1</sup>                           |           |
| ENST 594                                            | Graduate Seminar <sup>1</sup>                                |           |
| COMX 347                                            | Rhetoric, Nature, and Environmentalism                       |           |
| CRWR 212A                                           | Introductory Nonfiction Workshop                             |           |
| CRWR 312A                                           | Intermediate Nonfiction Workshop                             |           |
| CRWR 412                                            | Advanced Nonfiction Workshop                                 |           |
| JRNL 170                                            | Writing the News                                             |           |
| <b>Total Hours</b>                                  |                                                              | <b>12</b> |

<sup>1</sup> To register for ENST 573 and ENST 594, students must have senior standing, a 3.0 GPA, and instructor permission.

## Environmental Justice Certificate

The Certificate in Environmental Justice offers students an integrated social science and humanities approach for understanding, analyzing

and problem-solving around domestic and international environmental inequalities and injustices.

## General Certificate Requirements

Additional requirements for graduation can be found on the Degree/Certificate Requirements for Graduation page (p. 36).

Unless otherwise noted in individual program requirements, a minimum grade point average of 2.00 in all work attempted at the University of Montana-Missoula is required for graduation. Please see the Academic Policies and Procedures page (p. 25) for information on how your GPA is calculated.

Courses taken to satisfy the requirements of a major, minor, or certificate program must be completed with a grade of C- or better unless a higher grade is noted in the program requirements.

## Post-Secondary Certificate - Environmental Justice

### Course Requirements

| Code                                         | Title                                          | Hours     |
|----------------------------------------------|------------------------------------------------|-----------|
| <b>Required Courses</b>                      |                                                |           |
| Complete all of the following courses:       |                                                |           |
| ENST 410                                     | TEK of Indigenous Peoples                      | 3         |
| ENST 489S                                    | Environmental Justice Issues & Solutions       | 3         |
| <b>Electives</b>                             |                                                |           |
| Complete 9 credits of the following courses: |                                                | 9         |
| ANTY 323X                                    | Native Peoples of Montana                      |           |
| ANTY 326E                                    | Indigenous Peoples & the Ethics of Development |           |
| BGEN 445                                     | Sustainability Reporting                       |           |
| CHTH 355                                     | Health Promotion Practice I                    |           |
| ENST 320E                                    | Earth Ethics                                   |           |
| ENST 398                                     | Internship                                     |           |
| ENST 427                                     | Social Issues: The Mekong Delta                |           |
| ENST 487                                     | Globalization, Justice & Environment           |           |
| GPHY 284                                     | Intro to GIS and Cartography                   |           |
| GPHY 433                                     | Community Resilience                           |           |
| GPHY 468                                     | Community & Regional Analysis                  |           |
| HSTA 344                                     | African-American Struggle for Equality         |           |
| NASX 304E                                    | Native American Beliefs and Philosophy         |           |
| NASX 475                                     | Tribal Sovereignty                             |           |
| NRSM 349E                                    | Climate Change Ethics and Policy               |           |
| PHAR 320                                     | American Indian Health Issues                  |           |
| PHL 422                                      | Environmental Philosophy                       |           |
| PSCI 431                                     | Politics of Global Migration                   |           |
| PSCI 463                                     | Development Administration                     |           |
| PUBH 325                                     | Environmental and Occupational Health          |           |
| SOCI 220S                                    | Race, Gender & Class                           |           |
| SOCI 318                                     | Sociological Research Methods                  |           |
| SOCI 325                                     | Social Stratification                          |           |
| WGSS 363                                     | Feminist and Queer Theories and Methods        |           |
| <b>Total Hours</b>                           |                                                | <b>15</b> |

## Geographic Information Systems Certificate

The Certificate in Geographic Information Systems (GIS) is a complement to any existing major at the University of Montana or as an addition to a bachelor's degree obtained at another university. Earning the GIS Certificate will ensure you have the knowledge, understanding, and training necessary to acquire, process, analyze, and properly display digital geographic data.

## General Certificate Requirements

Additional requirements for graduation can be found on the Degree/Certificate Requirements for Graduation page (p. 36).

Unless otherwise noted in individual program requirements, a minimum grade point average of 2.00 in all work attempted at the University of Montana-Missoula is required for graduation. Please see the Academic Policies and Procedures page (p. 25) for information on how your GPA is calculated.

Courses taken to satisfy the requirements of a major, minor, or certificate program must be completed with a grade of C- or better unless a higher grade is noted in the program requirements.

## Post-Secondary Certificate - Geographic Information Systems

- This certificate requires a minimum GPA of 3.0.
- To earn a GIS Certificate, students must either complete or have completed an undergraduate degree and complete a minimum of 18 semester credit hours (six courses), including 9 to 10 core GIS course credits and 8 to 9 advanced GIS elective credits.

### Course Requirements

| Code                                           | Title                                                            | Hours |
|------------------------------------------------|------------------------------------------------------------------|-------|
| <b>Introduction to GIS</b>                     |                                                                  |       |
| Complete one of the following courses:         |                                                                  | 3     |
| FORS 250                                       | Intro to GIS for Forest Mgt                                      |       |
| GPHY 284                                       | Intro to GIS and Cartography                                     |       |
| <b>Photogrammetry/Remote Sensing</b>           |                                                                  |       |
| Complete one of the following courses:         |                                                                  | 3-4   |
| FORS 351                                       | Env Remote Sensing                                               |       |
| GPHY 487 & GPHY 489                            | Remote Sensing/Raster GIS and Cartography/GIS Laboratory         |       |
| <b>Additional Required Courses</b>             |                                                                  |       |
| Complete one of the following courses:         |                                                                  | 3     |
| FORS 350                                       | Forestry Apps of GIS                                             |       |
| GPHY 488                                       | Applications of GIS                                              |       |
| <b>Electives</b>                               |                                                                  |       |
| Complete 8-9 credits of the following courses: |                                                                  | 8-9   |
| ANTY 452                                       | GIS in Archaeology                                               |       |
| CSCI 444                                       | Data Visualization                                               |       |
| FORS 505                                       | Sampling Methods                                                 |       |
| GPHY 385                                       | Field Techniques                                                 |       |
| GPHY 468 & GPHY 469                            | Community & Regional Analysis and Planning & Analysis Laboratory |       |
| GPHY 474                                       | UAV Remote Sensing for Field Ecology                             |       |

|                        |                                                             |
|------------------------|-------------------------------------------------------------|
| GPHY 481               | Advanced Cartographic Design                                |
| GPHY 485               | Internet GIS                                                |
| GPHY 486<br>& GPHY 489 | Transport, Planning & GIS<br>and Cartography/GIS Laboratory |
| GPHY 564               | Planning Design                                             |
| GPHY 580               | Seminar GIS & Cartography                                   |
| GPHY 587<br>& GPHY 589 | Image Analysis & Modeling<br>and Cartography/GIS Laboratory |
| WILD 562               | Wildlife Habitat Modeling                                   |
| <b>Total Hours</b>     | <b>18</b>                                                   |

## Indigenous Knowledge and Environmental Sustainability Certificate

The Certificate in Indigenous Knowledge and Environmental Sustainability focuses on examining the relationship between Indigenous communities and their environments. This includes understanding how Indigenous communities are working to restore their Native landscapes, reestablish sustainable practices, and revitalize ethnobotanical knowledge and traditional food systems.

### General Certificate Requirements

Additional requirements for graduation can be found on the Degree/Certificate Requirements for Graduation page (p. 36).

Unless otherwise noted in individual program requirements, a minimum grade point average of 2.00 in all work attempted at the University of Montana-Missoula is required for graduation. Please see the Academic Policies and Procedures page (p. 25) for information on how your GPA is calculated.

Courses taken to satisfy the requirements of a major, minor, or certificate program must be completed with a grade of C- or better unless a higher grade is noted in the program requirements.

## Post-Secondary Certificate - Indigenous Knowledge and Environmental Sustainability Course Requirements

| Code                                   | Title                                   | Hours |
|----------------------------------------|-----------------------------------------|-------|
| <b>Required Courses</b>                |                                         |       |
| Complete the following courses:        |                                         |       |
| ENST 410                               | TEK of Indigenous Peoples               | 3     |
| ENSC 398                               | Internship                              | 3     |
| <b>Electives</b>                       |                                         |       |
| Complete two of the following courses: |                                         |       |
| ENSC 491                               | Special Topics/Experimental Courses     | 6     |
| ENSC 492                               | Independent Study                       |       |
| ENSC 494                               | Seminar/Workshop                        |       |
| ENSC 495                               | Field Study                             |       |
| ENST 420                               | US Environmental Movement               |       |
| ENST 472                               | General Science: Conservation Education |       |
| ENST 476                               | Community Sustainability in Practice    |       |

|                    |                                          |
|--------------------|------------------------------------------|
| ENST 489S          | Environmental Justice Issues & Solutions |
| ENST 491           | Special Topics/Experimental Courses      |
| ENST 492           | Independent Study                        |
| ENST 494           | Seminar/Workshop                         |
| ENST 499           | Senior Thesis/Capstone                   |
| <b>Total Hours</b> | <b>12</b>                                |

## Northern Rockies Outdoor Leadership Certificate

The Northern Rockies Outdoor Leadership Certificate is designed through collaboration of multiple University of Montana programs as a certificate to complement any major across campus for students interested in gaining and strengthening leadership skills through engagement in diverse conceptual courses and outdoor field settings. The purpose of the program is to provide undergraduate students or individuals with an undergraduate degree with leadership training and application that can be applied to any professional, academic, and personal setting in their future.

### General Certificate Requirements

Additional requirements for graduation can be found on the Degree/Certificate Requirements for Graduation page (p. 36).

Unless otherwise noted in individual program requirements, a minimum grade point average of 2.00 in all work attempted at the University of Montana-Missoula is required for graduation. Please see the Academic Policies and Procedures page (p. 25) for information on how your GPA is calculated.

Courses taken to satisfy the requirements of a major, minor, or certificate program must be completed with a grade of C- or better unless a higher grade is noted in the program requirements.

## Post-Secondary Certificate - Northern Rockies Outdoor Leadership

- Students are required to do an internship where they can apply their leadership skills with a professional partner. Internships can include on-campus initiatives like the Freshman Wilderness Experience and other student-led trips as well as off-campus internships with local, regional, or global partners. Internships will be approved by the coordinating committee and will be tracked through the W.A. Franke College of Forestry and Conservation.

### Course Requirements

| Code                                   | Title                                                              | Hours |
|----------------------------------------|--------------------------------------------------------------------|-------|
| <b>Theory</b>                          |                                                                    |       |
| Complete one of the following courses: |                                                                    | 3     |
| COMX 210                               | Communication in Small Groups                                      |       |
| GBLD 220                               | Models of Leadership                                               |       |
| HTH 465                                | Leading Integrative Physiology and Athletic Training Organizations |       |
| NRSM 373                               | Wilderness and Civilization                                        |       |
| PTRM 217S                              | Parks & Outdoor Recreation Management                              |       |
| PTRM 380                               | Recreation Administration & Leadership                             |       |
| <b>Experience</b>                      |                                                                    |       |
| Complete one of the following courses: |                                                                    |       |



|         |                                    |
|---------|------------------------------------|
| ACT 114 | Beginning Rock Climbing            |
| ACT 175 | Fly Fishing                        |
| ACT 176 | Fundamentals of Whitewater Rafting |
| ACT 177 | Fundamentals of Kayaking           |
| ACT 214 | Intermediate Rock Climbing         |
| ECP 102 | Wilderness First Aid               |
| ECP 122 | Wilderness First Responder         |
| ECP 331 | Wilderness EMT                     |

**Field Courses**

Complete one of the following courses: 3-5

|           |                                                      |
|-----------|------------------------------------------------------|
| NRSM 273  | Wilderness and Civilization Field Studies            |
| PTRM 345X | Sustaining Human Society & Natural Environment       |
| PTRM 353  | Tourism, Livelihoods and Sustainability in Mountains |
| PTRM 355  | Wilderness Medicine And Risk Management              |
| PTRM 356  | Wilderness Rescue and Survival                       |
| PTRM 418  | Winter Wilderness Field Studies                      |

**Internship**

Complete one of the following courses: 3

|          |            |
|----------|------------|
| CHTH 498 | Internship |
| KIN 498  | Internship |
| NRSM 498 | Internship |
| PTRM 398 | Internship |

**Total Hours****10-12**

## Sustainable Agriculture and Food Systems Certificate

The Certificate in Sustainable Agriculture and Food Systems helps prepare students to effectively build a more sustainable agriculture and food system for current and future generations. Students develop their knowledge and skills through upper-division courses that emphasize systems thinking, interdisciplinary study, civic engagement, and experiential, service learning at the campus-community PEAS farm.

### General Certificate Requirements

Additional requirements for graduation can be found on the Degree/Certificate Requirements for Graduation page (p. 36).

Unless otherwise noted in individual program requirements, a minimum grade point average of 2.00 in all work attempted at the University of Montana-Missoula is required for graduation. Please see the Academic Policies and Procedures page (p. 25) for information on how your GPA is calculated.

Courses taken to satisfy the requirements of a major, minor, or certificate program must be completed with a grade of C- or better unless a higher grade is noted in the program requirements.

### Post-Secondary Certificate - Sustainable Agriculture and Food Systems

- Students must achieve at least an overall grade point average of 3.0 for courses within the certificate program.

- The certificate will only be awarded upon the successful completion of all requirements and the attainment of a baccalaureate degree.

### Course Requirements

| Code                                          | Title                            | Hours     |
|-----------------------------------------------|----------------------------------|-----------|
| <b>Complete all of the following courses:</b> |                                  |           |
| ENSC 470                                      | Agroecology                      | 3         |
| ENST 480                                      | Food Justice and Sustainability  | 3         |
| ENST 495                                      | Field Work/Practicum (PEAS Farm) | 6         |
| <b>Total Hours</b>                            |                                  | <b>12</b> |

## Water Science and Society Certificate

The Water Science and Society Certificate provides students from a range of majors with foundational knowledge in water science and policy. Students take courses in the biological, physical, and policy sciences, and courses focused on skills relevant to understanding and managing water. The certificate culminates in a capstone experience that enables students to apply conceptual water knowledge to a project.

### General Certificate Requirements

Additional requirements for graduation can be found on the Degree/Certificate Requirements for Graduation page (p. 36).

Unless otherwise noted in individual program requirements, a minimum grade point average of 2.00 in all work attempted at the University of Montana-Missoula is required for graduation. Please see the Academic Policies and Procedures page (p. 25) for information on how your GPA is calculated.

Courses taken to satisfy the requirements of a major, minor, or certificate program must be completed with a grade of C- or better unless a higher grade is noted in the program requirements.

### Post-Secondary Certificate - Water Science and Society

#### Course Requirements

| Code                                   | Title                            | Hours |
|----------------------------------------|----------------------------------|-------|
| <b>Social/Policy</b>                   |                                  |       |
| Complete one of the following courses: |                                  | 3     |
| NRSM 427                               | Water Policy                     |       |
| GPHY 335                               | Water and Sustainability         |       |
| <b>Physical</b>                        |                                  |       |
| Complete one of the following courses: |                                  | 3     |
| ERTH 303N                              | Weather and Climate              |       |
| GEO 202                                | The Water Planet                 |       |
| GEO 420                                | Hydrogeology                     |       |
| GEO 421                                | Hydrology                        |       |
| NRSM 385                               | Watershed Hydrology              |       |
| <b>Biological/Ecological</b>           |                                  |       |
| Complete one of the following courses: |                                  | 3     |
| BIOE 428                               | Freshwater Ecology               |       |
| BIOE 439                               | Stream Ecology                   |       |
| BIOE 453                               | Lake Ecology                     |       |
| BIOO 340                               | Biology and Management of Fishes |       |

|                                                                 |                                                        |           |
|-----------------------------------------------------------------|--------------------------------------------------------|-----------|
| WILD 485                                                        | Aquatic Invertebrate Ecology                           |           |
| <b>Skills</b>                                                   |                                                        |           |
| Complete one of the following courses:                          |                                                        | 3         |
| CSCI 444                                                        | Data Visualization                                     |           |
| ECNS 201S                                                       | Principles of Microeconomics                           |           |
| ECNS 433                                                        | Economics of the Environment                           |           |
| ECNS 445                                                        | International Environmental Economics & Climate Change |           |
| GPHY 284                                                        | Intro to GIS and Cartography                           |           |
| GPHY 385                                                        | Field Techniques                                       |           |
| GPHY 465                                                        | Planning Principles & Processes                        |           |
| GPHY 466                                                        | Environmental Planning                                 |           |
| GPHY 468                                                        | Community & Regional Analysis                          |           |
| GPHY 482                                                        | Spatial Analysis & GIS                                 |           |
| GPHY 487                                                        | Remote Sensing/Raster GIS                              |           |
| NRSM 379                                                        | Collaborations in Natural Resource Decisions           |           |
| PSCI 361                                                        | Public Administration                                  |           |
| PSCI 491                                                        | Special Topics (Agency Policy-Making)                  |           |
| PTRM 310                                                        | Natural Resource Interpretation and Communication      |           |
| <b>Capstone <sup>1</sup></b>                                    |                                                        |           |
| Complete one of the following courses:                          |                                                        | 3         |
| ARTZ 314A                                                       | Environmental Drawing                                  |           |
| ARTZ 321                                                        | Painting II                                            |           |
| A thesis or internship course in the student's home department. |                                                        |           |
| A field course with a project or research component.            |                                                        |           |
| <b>Total Hours</b>                                              |                                                        | <b>15</b> |

<sup>1</sup> The course that satisfies this requirement must include a substantive project that is focused on water. To meet this requirement, students can complete a thesis, an internship, or a field course. Alternatively, they can complete one of the art courses listed below. In all cases, the project needs to be focused on water.

## College of Health

The College of Health (<https://www.umt.edu/health/>) houses six schools that provide undergraduate and graduate degrees for professional, clinical, and research careers. Opportunities to receive certificates and dual degrees are available as well as online programs for some degrees. In addition, the College provides advising for pre-medical sciences and offers courses in the health sciences that are open to students in all majors. The College is a member of the campus-wide UM Health and Medicine (UMHM) program that connects students, degree programs, researchers, and community partners. The College is also associated with the Family Medicine Residency of Western Montana and the Western Montana AHEC.

### Schools within the College:

- School of Integrative Physiology and Athletic Training (p. 177)
- School of Physical Therapy and Rehabilitation Science (p. 499)
- School of Public and Community Health Sciences (p. 183)
- School of Social Work (p. 185)
- School of Speech, Language, Hearing, and Occupational Sciences (p. 187)
- Skaggs School of Pharmacy (p. 190)
- School of Integrative Physiology and Athletic Training (p. 177)
  - Integrative Physiology B.S. - Health and Exercise Science (p. 178)
  - Integrative Physiology B.S. - Health Enhancement (p. 180)
  - Athletic Injury Certificate (p. 181)
  - Exercise is Medicine Certificate (p. 182)
  - Sports Coaching Certificate (p. 182)
  - Wilderness Emergency Medicine Certificate (p. 182)
- School of Public and Community Health Sciences (p. 183)
  - Public Health B.S. (p. 183)
  - Global Public Health Minor (p. 184)
- School of Social Work (p. 185)
  - Bachelor of Social Work (p. 185)
  - Gerontology Minor (p. 186)
- School of Speech, Language, Hearing, and Occupational Sciences (p. 187)
  - Communicative Sciences and Disorders B.A. (p. 187)
  - Communicative Sciences and Disorders Minor (p. 188)
  - Neurodivergence Inclusion and Supports Certificate (p. 189)
  - Speech Language Pathology Assistant Certificate (p. 189)
- Skaggs School of Pharmacy (p. 190)
  - Pharmaceutical Sciences B.S. (p. 191)
  - Pharmaceutical Science B.S. - Non-Professional Concentration (p. 192)
  - Doctor of Pharmacy (p. 193)
- Pre-Medical Sciences (p. 194)

## School of Integrative Physiology and Athletic Training

### Vision

To be a leading educational destination for research and educational programs focused on empowering the next generation of professionals to enhance health and physical activity for a diverse society.

### Mission

The School of Integrative Physiology and Athletic Training prepares graduates to be competitive entry-level professionals or candidates for advanced study in applied and clinical health professions. The faculty, staff, and students of the School of Integrative Physiology and Athletic Training engage in professional education, scholarly activity, and meaningful public service. The School emphasizes the integration of healthy lifestyles, basic science, preventative medicine, and clinical care across the lifespan.

The School of Integrative Physiology and Athletic Training (IPAT) will:

1. Provide high-quality education and experiential learning opportunities in order to foster professional competence in students and recent graduates.
2. Foster an environment of interprofessional learning and cooperation for future professionals in healthcare.
3. Contribute cutting-edge basic and applied research and scholarly activity in the field.
4. Invest in faculty and staff development to ensure students are optimally prepared for an evolving professional workplace.
5. Cultivate community relationships to serve students' needs, while providing outreach and service to our discipline, community, and university.

Student learning goals include:

1. Identify the historical underpinnings of the fields of integrative physiology and athletic training, and understand how they influence modern practices in these fields.
2. Explain complex principles in the student's area of specialization using effective dissemination techniques, including oral and written communication skills.
3. Practice collaboration with peers and colleagues in the student's chosen area of specialization.
4. Utilize evidence-based practices in professional settings or applications.
5. Display a basic level of competence requisite for their chosen field of study or advanced study.
6. Provide service related to the student's area of specialization to the community.

## Programs

Undergraduate students major in Integrative Physiology and choose from one of the following concentrations:

- Health and Exercise Science (p. 178)
- Health Enhancement (p. 180)

## Activity Classes

The IPAT department also provides a large activity program (ACT classes numbered 100-287, and ACTV 189 (<https://catalog.umd.edu/search/?P=ACTV%20189>) ) which includes instruction in a wide variety of individual, team, recreational, and fitness activities. Goals of this program include helping students:

1. Develop and maintain long-term health-related fitness,
2. Develop motor performance skills that facilitate regular and continuous participation in physical activity, and
3. Develop the adult "inner athlete" who continually strives to reach optimal potential through involvement in challenging endeavors.

Any University of Montana student may elect to apply up to four credits of activities courses (ACT) toward a baccalaureate degree.

## Special Degree Requirements

All Integrative Physiology majors must earn a minimum grade of a C- in all required courses, including prerequisites, except for special cases of higher requirements in Athletic Training noted below. In-department and out-of-department courses specifically listed in this catalog as

requirements for Integrative Physiology majors must be taken for a traditional letter grade.

- Integrative Physiology B.S. - Health and Exercise Science (p. 178)
- Integrative Physiology B.S. - Health Enhancement (p. 180)
- Athletic Injury Certificate (p. 181)
- Exercise is Medicine Certificate (p. 182)
- Sports Coaching Certificate (p. 182)
- Wilderness Emergency Medicine Certificate (p. 182)

## Integrative Physiology B.S. - Health and Exercise Science

### General Degree Requirements

To earn a baccalaureate degree, all students must complete successfully, in addition to any other requirements, the University of Montana General Education Requirements. Please refer to the General Education Requirements page (p. 39) for more information.

Additional requirements for graduation can be found on the Degree/Certificate Requirements for Graduation page (p. 36).

Unless otherwise noted in individual program requirements, a minimum grade point average of 2.00 in all work attempted at the University of Montana-Missoula is required for graduation. Please see the Academic Policies and Procedures page (p. 25) for information on how your GPA is calculated.

Courses taken to satisfy the requirements of a major, minor, or certificate program must be completed with a grade of C- or better unless a higher grade is noted in the program requirements.

## Bachelor of Science - Integrative Physiology; Health and Exercise Science Concentration

### Course Requirements

| Code                                                 | Title                                                       | Hours |
|------------------------------------------------------|-------------------------------------------------------------|-------|
| <b>Lower-Division Departmental Required Courses</b>  |                                                             |       |
| Complete all of the following courses:               |                                                             |       |
| KIN 201                                              | Basic Exercise Prescription                                 | 3     |
| KIN 205                                              | Foundations of Integrative Physiology and Athletic Training | 3     |
| NUTR 221N                                            | Basic Human Nutrition                                       | 3     |
| <b>Outside Major Lower-Division Required Courses</b> |                                                             |       |
| BIOH 201N                                            | Human Anatomy & Physiology I                                | 4     |
| BIOH 211N                                            | Human Anatomy and Physiology II                             | 4     |
| CHMY 121N                                            | Introduction to General Chemistry                           | 4     |
| CHMY 123                                             | Introduction to Organic and Biochemistry                    | 4     |
| CHMY 124                                             | Introduction to Organic and Biochemistry Lab                | 2     |
| STAT 216                                             | Introduction to Statistics                                  | 4     |
| <b>Upper-Division Departmental Required Courses</b>  |                                                             |       |
| Complete all of the following courses:               |                                                             |       |
| HTH 475E                                             | Legal and Ethical Issues Health and Exercise Professions    | 3     |

|                        |                                                             |   |
|------------------------|-------------------------------------------------------------|---|
| KIN 320                | Exercise Physiology                                         | 3 |
| KIN 321                | Exercise Physiology Lab                                     | 1 |
| KIN 330                | Motor Learning and Control                                  | 3 |
| KIN 425                | Biomechanics                                                | 3 |
| KIN 426                | Biomechanics and Human Movement Analysis Laboratory         | 1 |
| KIN 447                | Professional Writing in Integrative Physiology              | 3 |
| or AHAT 342 & AHAT 343 | Therapeutic Interventions and Therapeutic Interventions Lab |   |
| KIN 483                | Exercise Disease & Aging                                    | 3 |
| KIN 484                | Exercise Disease & Aging Lab                                | 1 |
| KIN 498                | Internship                                                  | 3 |
| or KIN 499             | Capstone                                                    |   |

**Electives**

|                                               |    |
|-----------------------------------------------|----|
| Complete 15 credits of the following courses: | 15 |
|-----------------------------------------------|----|

Students should take an appropriate number of upper-division electives to achieve 39 upper-division credits, per UM graduation requirements. Students should use elective courses to meet the additional prerequisite course requirements of graduate programs they are interested in attending.

|          |                                                                    |
|----------|--------------------------------------------------------------------|
| AHAT 210 | Prevention and Care Athletic Injuries                              |
| AHAT 213 | Prevention and Care Athletic Injuries Lab                          |
| AHAT 324 | Assessment of the Extremities                                      |
| AHAT 325 | Assessment of the Extremities Lab                                  |
| AHAT 479 | Topics in Sports Medicine                                          |
| AHMS 144 | Medical Terminology                                                |
| COA 405  | Advanced Concepts in Coaching                                      |
| HTH 110  | Personal Health and Wellness                                       |
| HTH 465  | Leading Integrative Physiology and Athletic Training Organizations |
| KIN 310  | Strength Training & Cond                                           |
| KIN 322  | Kinesiology                                                        |
| KIN 323  | Anatomical Kinesiology Lab                                         |
| KIN 410  | Advanced Strength Training & Conditioning                          |
| KIN 440  | Sport Psychology                                                   |
| KIN 441  | Seminar in Sport Psychology                                        |
| KIN 460  | ECG Assessment                                                     |
| KIN 498  | Internship                                                         |
| KIN 499  | Capstone                                                           |
| NUTR 411 | Nutrition For Sports & Exercise                                    |

**Total Hours** **70**

## Four Year Plan

| Course                   | Title                                                                | Hours        |
|--------------------------|----------------------------------------------------------------------|--------------|
| <b>Freshman</b>          |                                                                      |              |
| <b>Autumn</b>            |                                                                      |              |
| KIN 201                  | Basic Exercise Prescription                                          | 3            |
| CHMY 121N                | Introduction to General Chemistry                                    | 4            |
| COMX 111A<br>or WRIT 101 | Introduction to Public Speaking <sup>1</sup><br>or College Writing I | 3-4          |
| BIOH 112<br>or BIOB 160  | Human Form and Function I<br>or Principles of Living Systems         | 3            |
| <b>Hours</b>             |                                                                      | <b>13-14</b> |

|                          |                                                                                           |              |
|--------------------------|-------------------------------------------------------------------------------------------|--------------|
| <b>Spring</b>            |                                                                                           |              |
| KIN 205                  | Foundations of Integrative Physiology and Athletic Training                               | 3            |
| CHMY 123 & CHMY 124      | Introduction to Organic and Biochemistry and Introduction to Organic and Biochemistry Lab | 6            |
| WRIT 101<br>or COMX 111A | College Writing I <sup>1</sup><br>or Introduction to Public Speaking                      | 3-4          |
| PSYX 100S                | Intro to Psychology                                                                       | 3            |
| BIOH 113                 | Human Form and Function II (if needed)                                                    | 3            |
| <b>Hours</b>             |                                                                                           | <b>18-19</b> |

**Sophomore**

|                                                          |                                                                                                                                                     |              |
|----------------------------------------------------------|-----------------------------------------------------------------------------------------------------------------------------------------------------|--------------|
| <b>Autumn</b>                                            |                                                                                                                                                     |              |
| NUTR 221N                                                | Basic Human Nutrition                                                                                                                               | 3            |
| BIOH 365 & BIOH 366<br>or BIOH 201N <i>and</i> BIOH 202N | Human Anatomy and Physiology for Health Professions I <sup>3</sup><br>or Human Anatomy & Physiology I <i>and</i> Human Anatomy and Physiology I Lab | 4            |
| M 121<br>or M 151                                        | College Algebra<br>or Precalculus                                                                                                                   | 3-4          |
| General Education Course (L, H, X, or Y)                 |                                                                                                                                                     | 3            |
| <b>Hours</b>                                             |                                                                                                                                                     | <b>13-14</b> |

**Spring**

|                                                          |                                                                                                                                                          |           |
|----------------------------------------------------------|----------------------------------------------------------------------------------------------------------------------------------------------------------|-----------|
| M 122                                                    | College Trigonometry (if needed)                                                                                                                         | 3         |
| BIOH 370 & BIOH 371<br>or BIOH 211N <i>and</i> BIOH 212N | Human Anatomy and Physiology for Health Professions II <sup>3</sup><br>or Human Anatomy and Physiology II <i>and</i> Human Anatomy and Physiology II Lab | 4         |
| WRIT 121<br>or WRIT 201                                  | Introduction to Technical Writing <sup>2</sup><br>or College Writing II                                                                                  | 3         |
| General Education Course (L, H, X, or Y)                 |                                                                                                                                                          | 3         |
| Elective                                                 |                                                                                                                                                          | 3         |
| <b>Hours</b>                                             |                                                                                                                                                          | <b>16</b> |

**Junior**

|                                          |                                                    |           |
|------------------------------------------|----------------------------------------------------|-----------|
| <b>Autumn</b>                            |                                                    |           |
| KIN 330                                  | Motor Learning and Control                         | 3         |
| PHSX 205N & PHSX 206N                    | College Physics I and College Physics I Laboratory | 5         |
| STAT 216                                 | Introduction to Statistics                         | 4         |
| General Education Course (L, H, X, or Y) |                                                    | 3         |
| <b>Hours</b>                             |                                                    | <b>15</b> |

**Spring**

|                                          |                                                                               |           |
|------------------------------------------|-------------------------------------------------------------------------------|-----------|
| HTH 475E                                 | Legal and Ethical Issues Health and Exercise Professions                      | 3         |
| PHSX 207N & PHSX 208N                    | College Physics II and College Physics II Laboratory                          | 5         |
| BIOB 170N & BIOB 171N                    | Principles of Biological Diversity and Principles of Biological Diversity Lab | 5         |
| General Education Course (L, H, X, or Y) |                                                                               | 3         |
| <b>Hours</b>                             |                                                                               | <b>16</b> |

**Senior**

|                       |                           |           |
|-----------------------|---------------------------|-----------|
| <b>Autumn</b>         |                           |           |
| KIN 498<br>or KIN 499 | Internship<br>or Capstone | 3         |
| KIN 460               | ECG Assessment            | 2         |
| Elective              |                           | 9         |
| <b>Hours</b>          |                           | <b>14</b> |

**Spring**

|                    |                                                           |                |
|--------------------|-----------------------------------------------------------|----------------|
| Advanced Writing   |                                                           | 3              |
| KIN 483 & KIN 484  | Exercise Disease & Aging and Exercise Disease & Aging Lab | 4              |
| Elective           |                                                           | 9              |
| <b>Hours</b>       |                                                           | <b>16</b>      |
| <b>Total Hours</b> |                                                           | <b>121-124</b> |

*Last updated Autumn 2024*

Students must complete at least 18 elective credit hours in addition to the required courses above.

Additional classes will be needed for those hoping to complete prerequisites for PT, PA, Med, OT, Chiropractic schools, etc. See advisor.

<sup>1</sup> If last name starts with A-L take WRIT 101. M-Z take COMX 111A  
<sup>2</sup> Held off campus at the Missoula College  
<sup>3</sup> If student takes BIOH 201N & BIOH 211N or another 200 level Anatomy and Physiology sequence, they will need to take additional upper division credits to meet the University requirement of 39 upper division credits for graduation.

# Integrative Physiology B.S. - Health Enhancement

The Health Enhancement concentration of the Integrative Physiology and Athletic Training major is for students who will instruct physical education and health classes within a K-12 primary/secondary education system. Comprehensive training includes coursework in education and pedagogy in addition to specific work related to exercise, physical education, and health related content knowledge. Foundational teaching concepts are provided through primary and secondary health enhancement coursework and theory and practice in community health education. Topical knowledge is provided by the courses, motor control/ learning, and exercise physiology. This curriculum is thematically related to lifestyle medicine and *Exercise is Medicine*, including basic nutrition, personal health and wellness, promotion of wellbeing in K-12 classrooms, program planning in community health, and foundations of health and human performance. Aspects of coaching, exercise programing, and professional development are provided through coursework in strength training and conditioning, basic exercise prescription, prevention and care of athletic injuries, and legal and ethical issues in health and exercise professions.

## Admission Policies for the Health Enhancement Concentration

Individuals seeking licensure to teach must apply for admission to the professional Teacher Education Program. Deadlines for application are September 15 and February 15. Individuals are eligible for consideration for admission if they have:

- been admitted to the University of Montana;
- completed at least 30 semester credits;
- earned a minimum cumulative GPA (including all transfer credits) of 2.75;
- completed an English writing course (WRIT 101) with a grade of C- or better;
- demonstrated evidence of writing ability in an application essay;
- documented appropriate experience working with children or youth;
- secured supportive recommendations from two faculty members;
- presented results of a national fingerprint-based background check; and
- demonstrated appropriate professional behaviors and dispositions associated with success in the profession

Once admitted, licensure candidates must maintain a minimum GPA of 2.75 each semester to continue in the program. Candidates who interrupt their studies for more than two years are placed on inactive status and must apply for readmission to both the University and the Teacher Education Program.

Candidates seeking a K-12 endorsement in library, reading, or special education must have full admission to the Teacher Education Program or be a licensed teacher before applying to one of these specialized programs.

Degree-holding individuals are invited to submit transcripts for review to determine how previous course work applies. They may earn a second baccalaureate degree and/or a teaching license or they may combine elementary, secondary, or K-12 licensure with a master's degree.

## General Degree Requirements

To earn a baccalaureate degree, all students must complete successfully, in addition to any other requirements, the University of Montana General Education Requirements. Please refer to the General Education Requirements page (p. 39) for more information.

Additional requirements for graduation can be found on the Degree/ Certificate Requirements for Graduation page (p. 36).

Unless otherwise noted in individual program requirements, a minimum grade point average of 2.00 in all work attempted at the University of Montana-Missoula is required for graduation. Please see the Academic Policies and Procedures page (p. 25) for information on how your GPA is calculated.

Courses taken to satisfy the requirements of a major, minor, or certificate program must be completed with a grade of C- or better unless a higher grade is noted in the program requirements.

## Bachelor of Science - Integrative Physiology; Health Enhancement Concentration

- Students must take all core and elective courses from the University of Montana's curriculum, but can receive credit for transfer courses upon approval of IPAT advisor.

### Course Requirements

| Code                                          | Title                                                       | Hours |
|-----------------------------------------------|-------------------------------------------------------------|-------|
| Lower-Division Departmental Required Courses  |                                                             |       |
| Complete all of the following courses:        |                                                             |       |
| AHAT 210                                      | Prevention and Care Athletic Injuries                       | 2     |
| AHAT 213                                      | Prevention and Care Athletic Injuries Lab                   | 1     |
| KIN 201                                       | Basic Exercise Prescription                                 | 3     |
| KIN 205                                       | Foundations of Integrative Physiology and Athletic Training | 3     |
| NUTR 221N                                     | Basic Human Nutrition                                       | 3     |
| Outside Major Lower-Division Required Courses |                                                             |       |
| Complete all of the following courses:        |                                                             |       |
| COMX 111A                                     | Introduction to Public Speaking                             | 3     |
| PSYX 100S                                     | Intro to Psychology                                         | 3     |
| Complete one of the following:                |                                                             | 3-4   |
| STAT 216                                      | Introduction to Statistics                                  |       |



|          |                                                                       |  |
|----------|-----------------------------------------------------------------------|--|
| PSYX 222 | Psychological Statistics (must be pre-approved by advisor)            |  |
| EDU 421  | Statistical Procedures in Education (must be pre-approved by advisor) |  |

**Upper-Division Departmental Required Courses**

Complete all of the following courses:

|          |                                                          |   |
|----------|----------------------------------------------------------|---|
| CHTH 355 | Health Promotion Practice I                              | 3 |
| CHTH 445 | Health Promotion Practice II                             | 3 |
| EDU 360  | Promoting Wellbeing in P-12 Classrooms                   | 2 |
| HEE 301  | Methods of Secondary HE                                  | 3 |
| HEE 302  | Methods of Instructional Strategies in Elementary PE     | 3 |
| HTH 475E | Legal and Ethical Issues Health and Exercise Professions | 3 |
| KIN 310  | Strength Training & Cond                                 | 2 |
| KIN 320  | Exercise Physiology                                      | 3 |
| KIN 321  | Exercise Physiology Lab                                  | 1 |
| KIN 322  | Kinesiology                                              | 3 |
| KIN 323  | Anatomical Kinesiology Lab                               | 1 |
| KIN 330  | Motor Learning and Control                               | 3 |
| KIN 447  | Professional Writing in Integrative Physiology           | 3 |

**Outside Major Upper-Division Required Courses <sup>1</sup>**

Complete one of the following Anatomy and Physiology Sequences: 8

University of Montana - Mountain Campus

|                     |                                                                                                                              |  |
|---------------------|------------------------------------------------------------------------------------------------------------------------------|--|
| BIOH 365 & BIOH 366 | Human Anatomy and Physiology for Health Professions I and Human Anatomy and Physiology for Health Professions I Laboratory   |  |
| BIOH 370 & BIOH 371 | Human Anatomy and Physiology for Health Professions II and Human Anatomy and Physiology for Health Professions II Laboratory |  |

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|                       |                                                                  |  |
|-----------------------|------------------------------------------------------------------|--|
| BIOH 201N & BIOH 211N | Human Anatomy & Physiology I and Human Anatomy and Physiology II |  |
|-----------------------|------------------------------------------------------------------|--|

**Total Hours 62-63**

<sup>1</sup> It is strongly recommended that students take either BIOH 112 OR BIOH 113 OR BIOB 160 prior to taking Anatomy and Physiology.

## Four Year Plan

| Course                       | Title                                                       | Hours     |
|------------------------------|-------------------------------------------------------------|-----------|
| <b>Freshman</b>              |                                                             |           |
| <b>Autumn</b>                |                                                             |           |
| KIN 201                      | Basic Exercise Prescription                                 | 3         |
| CHMY 121N                    | Introduction to General Chemistry                           | 4         |
| WRIT 101                     | College Writing I                                           | 4         |
| General Education Course (H) |                                                             | 3         |
| <b>Hours</b>                 |                                                             | <b>14</b> |
| <b>Spring</b>                |                                                             |           |
| KIN 205                      | Foundations of Integrative Physiology and Athletic Training | 3         |
| COMX 111A                    | Introduction to Public Speaking                             | 3         |

|                                           |                                                                                                        |   |
|-------------------------------------------|--------------------------------------------------------------------------------------------------------|---|
| M 115 or M 121 or M 151 or M 162 or M 171 | Probability and Linear Mathematics or College Algebra or Precalculus or Applied Calculus or Calculus I | 4 |
|-------------------------------------------|--------------------------------------------------------------------------------------------------------|---|

General Education Course (L) 3

**Hours 13****Sophomore****Autumn**

|                              |                                                                                     |   |
|------------------------------|-------------------------------------------------------------------------------------|---|
| BIOH 201N & BIOH 202N        | Human Anatomy & Physiology I and Human Anatomy and Physiology I Lab                 | 4 |
| AHAT 210 & AHAT 213          | Prevention and Care Athletic Injuries and Prevention and Care Athletic Injuries Lab | 3 |
| NUTR 221N                    | Basic Human Nutrition                                                               | 3 |
| General Education Course (X) |                                                                                     | 3 |

**Hours 13****Spring**

|                       |                                                                         |   |
|-----------------------|-------------------------------------------------------------------------|---|
| BIOH 211N & BIOH 212N | Human Anatomy and Physiology II and Human Anatomy and Physiology II Lab | 4 |
| PSYX 100S             | Intro to Psychology                                                     | 3 |
| HTH 110               | Personal Health and Wellness                                            | 3 |
| Intermediate Writing  |                                                                         | 3 |

**Hours 13****Junior****Autumn**

|                              |                                                   |   |
|------------------------------|---------------------------------------------------|---|
| KIN 330                      | Motor Learning and Control                        | 3 |
| KIN 310                      | Strength Training & Cond                          | 2 |
| HEE 301                      | Methods of Secondary Health Education             | 3 |
| CHTH 355                     | Theory and Practice of Community Health Education | 3 |
| General Education Course (Y) |                                                   | 3 |

**Hours 14****Spring**

|                   |                                                      |   |
|-------------------|------------------------------------------------------|---|
| KIN 320 & KIN 321 | Exercise Physiology and Exercise Physiology Lab      | 4 |
| KIN 322 & KIN 323 | Kinesiology and Anatomical Kinesiology Lab           | 4 |
| HEE 302           | Methods of Instructional Strategies in Elementary PE | 3 |
| STAT 216          | Introduction to Statistics                           | 4 |

**Hours 15****Senior****Autumn**

|          |                                                          |   |
|----------|----------------------------------------------------------|---|
| EDU 360  | Promoting Wellbeing in P-12 Classrooms                   | 2 |
| HTH 475E | Legal and Ethical Issues Health and Exercise Professions | 3 |
| KIN 447  | Professional Writing in Integrative Physiology           | 3 |
| CHTH 445 | Program Planning in Community Health                     | 3 |

**Hours 11****Spring**

|         |                  |    |
|---------|------------------|----|
| EDU 494 | Seminar          | 1  |
| EDU 495 | Student Teaching | 14 |

**Hours 15****Total Hours 108***Last updated Autumn 2024*

## Athletic Injury Certificate General Certificate Requirements

Additional requirements for graduation can be found on the Degree/Certificate Requirements for Graduation page (p. 36).

Unless otherwise noted in individual program requirements, a minimum grade point average of 2.00 in all work attempted at the University of

Montana-Missoula is required for graduation. Please see the Academic Policies and Procedures page (p. 25) for information on how your GPA is calculated.

Courses taken to satisfy the requirements of a major, minor, or certificate program must be completed with a grade of C- or better unless a higher grade is noted in the program requirements.

## Post-Secondary Certificate - Athletic Injury

### Course Requirements

| Code                                          | Title                                                              | Hours        |
|-----------------------------------------------|--------------------------------------------------------------------|--------------|
| <b>Complete all of the following courses:</b> |                                                                    |              |
| AHAT 210                                      | Prevention and Care Athletic Injuries                              | 2            |
| AHAT 213                                      | Prevention and Care Athletic Injuries Lab                          | 1            |
| AHAT 324                                      | Assessment of the Extremities                                      | 2            |
| AHAT 325                                      | Assessment of the Extremities Lab                                  | 1            |
| AHAT 342                                      | Therapeutic Interventions                                          | 2            |
| AHAT 343                                      | Therapeutic Interventions Lab                                      | 1            |
| HTH 465                                       | Leading Integrative Physiology and Athletic Training Organizations | 3            |
| KIN 440                                       | Sport Psychology                                                   | 2-3          |
| or KIN 310                                    | Strength Training & Cond                                           |              |
| NUTR 221N                                     | Basic Human Nutrition                                              | 3            |
| <b>Total Hours</b>                            |                                                                    | <b>17-18</b> |

## Exercise is Medicine Certificate

### General Certificate Requirements

Additional requirements for graduation can be found on the Degree/Certificate Requirements for Graduation page (p. 36).

Unless otherwise noted in individual program requirements, a minimum grade point average of 2.00 in all work attempted at the University of Montana-Missoula is required for graduation. Please see the Academic Policies and Procedures page (p. 25) for information on how your GPA is calculated.

Courses taken to satisfy the requirements of a major, minor, or certificate program must be completed with a grade of C- or better unless a higher grade is noted in the program requirements.

## Post-Secondary Certificate - Exercise Is Medicine

### Course Requirements

| Code                                          | Title                                                       | Hours |
|-----------------------------------------------|-------------------------------------------------------------|-------|
| <b>Complete all of the following courses:</b> |                                                             |       |
| KIN 201                                       | Basic Exercise Prescription                                 | 3     |
| KIN 205                                       | Foundations of Integrative Physiology and Athletic Training | 3     |
| KIN 320                                       | Exercise Physiology                                         | 3     |
| KIN 321                                       | Exercise Physiology Lab                                     | 1     |
| KIN 460                                       | ECG Assessment                                              | 2     |
| KIN 483                                       | Exercise Disease & Aging                                    | 3     |

|                    |                                                            |           |
|--------------------|------------------------------------------------------------|-----------|
| KIN 495            | Practicum in Integrative Physiology (Exercise is Medicine) | 3         |
| <b>Total Hours</b> |                                                            | <b>18</b> |

## Sports Coaching Certificate

### General Certificate Requirements

Additional requirements for graduation can be found on the Degree/Certificate Requirements for Graduation page (p. 36).

Unless otherwise noted in individual program requirements, a minimum grade point average of 2.00 in all work attempted at the University of Montana-Missoula is required for graduation. Please see the Academic Policies and Procedures page (p. 25) for information on how your GPA is calculated.

Courses taken to satisfy the requirements of a major, minor, or certificate program must be completed with a grade of C- or better unless a higher grade is noted in the program requirements.

## Post-Secondary Certificate - Sports Coaching

### Course Requirements

| Code                                          | Title                                                              | Hours     |
|-----------------------------------------------|--------------------------------------------------------------------|-----------|
| <b>Complete all of the following courses:</b> |                                                                    |           |
| AHAT 210                                      | Prevention and Care Athletic Injuries                              | 2         |
| AHAT 213                                      | Prevention and Care Athletic Injuries Lab                          | 1         |
| COA 405                                       | Advanced Concepts in Coaching                                      | 3         |
| KIN 310                                       | Strength Training & Cond                                           | 2         |
| KIN 410                                       | Advanced Strength Training & Conditioning                          | 3         |
| KIN 440                                       | Sport Psychology                                                   | 3         |
| or HTH 465                                    | Leading Integrative Physiology and Athletic Training Organizations |           |
| <b>Total Hours</b>                            |                                                                    | <b>14</b> |

## Wilderness Emergency Medicine Certificate

### General Certificate Requirements

Additional requirements for graduation can be found on the Degree/Certificate Requirements for Graduation page (p. 36).

Unless otherwise noted in individual program requirements, a minimum grade point average of 2.00 in all work attempted at the University of Montana-Missoula is required for graduation. Please see the Academic Policies and Procedures page (p. 25) for information on how your GPA is calculated.

Courses taken to satisfy the requirements of a major, minor, or certificate program must be completed with a grade of C- or better unless a higher grade is noted in the program requirements.

## Post-Secondary Certificate - Wilderness Emergency Medicine

### Course Requirements

| Code                                          | Title                                                              | Hours        |
|-----------------------------------------------|--------------------------------------------------------------------|--------------|
| <b>Complete one of the following courses:</b> |                                                                    | <b>3-4</b>   |
| BIOH 112                                      | Human Form and Function I                                          |              |
| BIOH 113                                      | Human Form and Function II                                         |              |
| BIOH 104N<br>& BIOH 105N                      | Basic Human Biology<br>and Basic Human Biology Laboratory          |              |
| <b>Complete all of the following courses:</b> |                                                                    |              |
| AHAT 210                                      | Prevention and Care Athletic Injuries                              | 2            |
| AHAT 213                                      | Prevention and Care Athletic Injuries Lab                          | 1            |
| AHMS 144                                      | Medical Terminology                                                | 3            |
| ECP 331                                       | Wilderness EMT                                                     | 3            |
| HTH 465                                       | Leading Integrative Physiology and Athletic Training Organizations | 3            |
| NUTR 221N                                     | Basic Human Nutrition                                              | 3            |
| <b>Total Hours</b>                            |                                                                    | <b>18-19</b> |

## School of Public and Community Health Sciences

Located in Missoula, Montana, the University of Montana School of Public and Community Health Sciences (SPCHS) is housed within the College of Health (CoH). The Montana Board of Regents approved the SPCHS administrative unit in March 2005, with its first class of students enrolled during the fall of 2006. We are the first and only Council on Education for Public Health (CEPH) accredited program in Montana.

- What is public health?
  - Public health practitioners work to solve the world's most pressing health problems, such as COVID-19 and climate change. They focus on preventing disease by promoting a healthier lifestyle, implementing educational programs, developing policies, administering services, conducting research, and regulating health systems as a way to achieve these goals.
- What does public health encompass?
  - Public health practitioners work to improve the health of individuals and communities both locally and globally. They confront health issues such as controlling infectious disease and reducing environmental hazards. They also work to develop applications in prevention programs to improve health.
- What impact does public health have on our lives?
  - Public health impacts our lives by creating healthier communities, reducing the impact of natural disasters and global epidemics, and addressing health disparities.
- What types of careers are available in the field of public health?
  - Public Health encompass a wide variety of careers related to epidemiology, biostatistics, environmental health, health administration, community health, and preparedness or preventive medicine.

For more information about the School of Public and Community Health Sciences, including contact information for faculty members, please visit the School of Public and Community Health Sciences website (<http://health.umt.edu/publichealth/>).

- Public Health B.S. (p. 183)
- Global Public Health Minor (p. 184)

## Public Health B.S.

### General Degree Requirements

To earn a baccalaureate degree, all students must complete successfully, in addition to any other requirements, the University of Montana General Education Requirements. Please refer to the General Education Requirements page (p. 39) for more information.

Additional requirements for graduation can be found on the Degree/Certificate Requirements for Graduation page (p. 36).

Unless otherwise noted in individual program requirements, a minimum grade point average of 2.00 in all work attempted at the University of Montana-Missoula is required for graduation. Please see the Academic Policies and Procedures page (p. 25) for information on how your GPA is calculated.

Courses taken to satisfy the requirements of a major, minor, or certificate program must be completed with a grade of C- or better unless a higher grade is noted in the program requirements.

## Bachelor of Science - Public Health

### Course Requirements

| Code                                                           | Title                                             | Hours    |
|----------------------------------------------------------------|---------------------------------------------------|----------|
| <b>Public Health Core Courses</b>                              |                                                   |          |
| <b>Complete all of the following courses:</b>                  |                                                   |          |
| BIOB 101N<br>or BIOH 104N                                      | Discover Biology<br>Basic Human Biology           | 3        |
| CHTH 355                                                       | Health Promotion Practice I                       | 3        |
| CHTH 440                                                       | Principles of Epidemiology                        | 3        |
| CHTH 445                                                       | Health Promotion Practice II                      | 3        |
| PUBH 101S                                                      | Introduction to Public Health                     | 3        |
| PUBH 155                                                       | Reimagining Global Health: Biosocial Perspectives | 3        |
| PUBH 225                                                       | Public Health Policy                              | 3        |
| PUBH 325                                                       | Environmental and Occupational Health             | 3        |
| PUBH 475E                                                      | Public Health Ethics                              | 3        |
| PUBH 498                                                       | Internship                                        | 3        |
| STAT 216                                                       | Introduction to Statistics                        | 4        |
| <b>Health Communications</b>                                   |                                                   |          |
| <b>Complete three credits of the following courses:</b>        |                                                   | <b>3</b> |
| COMX 425                                                       | Communication in Health Organizations             |          |
| COMX 480                                                       | Health Communication                              |          |
| COMX 486                                                       | Health and Family Communication                   |          |
| <b>Additional Required Credits</b>                             |                                                   |          |
| <b>Complete 6 additional credits of the following courses:</b> |                                                   | <b>6</b> |
| AHHS 430                                                       | Health Aspects of Aging                           |          |
| BIOM 327                                                       | Vector-Borne Diseases: Public Health Perspectives |          |
| CHTH 414                                                       | Health and Culture: A Global Perspective          |          |
| HTH 370                                                        | Peer Health Education                             |          |
| HTH 395                                                        | Peer Health Practicum                             |          |
| S W 423                                                        | Addiction Studies                                 |          |

**Electives**

|                                               |                                                    |           |
|-----------------------------------------------|----------------------------------------------------|-----------|
| Complete 16 credits of the following courses: |                                                    | 16        |
| AHHS 430                                      | Health Aspects of Aging                            |           |
| ANTY 126                                      | Anthropology and Global Health                     |           |
| ANTY 220S                                     | Culture & Society                                  |           |
| ANTY 326E                                     | Indigenous Peoples & the Ethics of Development     |           |
| ANTY 330X                                     | Peoples and Cultures of World                      |           |
| BIOH 112                                      | Human Form and Function I                          |           |
| BIOH 113                                      | Human Form and Function II                         |           |
| BIOM 327                                      | Vector-Borne Diseases: Public Health Perspectives  |           |
| CHTH 414                                      | Health and Culture: A Global Perspective           |           |
| COMX 425                                      | Communication in Health Organizations              |           |
| ENST 225S                                     | Sustainable Communities                            |           |
| GPHY 468                                      | Community & Regional Analysis                      |           |
| GPHY 469                                      | Planning & Analysis Laboratory                     |           |
| HTH 370                                       | Peer Health Education                              |           |
| HTH 395                                       | Peer Health Practicum                              |           |
| KIN 201                                       | Basic Exercise Prescription                        |           |
| NPAD 466                                      | Practical Applications in Nonprofit Administration |           |
| NPAD 467                                      | Advanced Nonprofit Admin                           |           |
| NUTR 221N                                     | Basic Human Nutrition                              |           |
| PHL 321E                                      | Philosophy & Biomedical Ethics                     |           |
| PSCI 431                                      | Politics of Global Migration                       |           |
| PSCI 463                                      | Development Administration                         |           |
| PUBH 380                                      | Public Health Nutrition                            |           |
| S W 423                                       | Addiction Studies                                  |           |
| <b>Total Hours</b>                            |                                                    | <b>59</b> |

## Global Public Health Minor

The Global Public Health (GPH) Minor, an inter-disciplinary program, is for students of any major who want to engage with timely global issues. Public health across the world is intertwined with economics, politics, data science, environmental science, history, medicine, information technology, and many other disciplines. The GPH minor helps prepare tomorrow's professionals to thrive while facing global challenges.

## General Degree Requirements

To earn a baccalaureate degree, all students must complete successfully, in addition to any other requirements, the University of Montana General Education Requirements. Please refer to the General Education Requirements page (p. 39) for more information.

Additional requirements for graduation can be found on the Degree/Certificate Requirements for Graduation page (p. 36).

Unless otherwise noted in individual program requirements, a minimum grade point average of 2.00 in all work attempted at the University of Montana-Missoula is required for graduation. Please see the Academic Policies and Procedures page (p. 25) for information on how your GPA is calculated.

Courses taken to satisfy the requirements of a major, minor, or certificate program must be completed with a grade of C- or better unless a higher grade is noted in the program requirements.

## Minor - Global Public Health

- Students must take all core courses from The University of Montana's curriculum, but can receive content credit for relevant practicum and internships experience and for relevant courses taken at other universities if approved by the program director.

## Course Requirements

| Code                                                                                                | Title                                             | Hours |
|-----------------------------------------------------------------------------------------------------|---------------------------------------------------|-------|
| <b>Required Courses</b>                                                                             |                                                   |       |
| Complete all of the following courses:                                                              |                                                   |       |
| BIOM 327                                                                                            | Vector-Borne Diseases: Public Health Perspectives | 3     |
| PUBH 155                                                                                            | Reimagining Global Health: Biosocial Perspectives | 3     |
| <b>Core Electives</b>                                                                               |                                                   |       |
| Complete 9 credits from the following courses; 3 credits from each of the following sub areas:      |                                                   | 9     |
| <b>Core Public Health and Community Health Perspectives:</b>                                        |                                                   |       |
| CHTH 414                                                                                            | Health and Culture: A Global Perspective          |       |
| CHTH 440                                                                                            | Principles of Epidemiology                        |       |
| CHTH 445                                                                                            | Health Promotion Practice II                      |       |
| PUBH 101S                                                                                           | Introduction to Public Health                     |       |
| PUBH 225                                                                                            | Public Health Policy                              |       |
| PUBH 475E                                                                                           | Public Health Ethics                              |       |
| <b>Core Sociocultural, Communication and Economic Perspectives:</b>                                 |                                                   |       |
| ANTY 433                                                                                            | Indigenous Global Health & Healing                |       |
| COMX 425                                                                                            | Communication in Health Organizations             |       |
| COMX 483                                                                                            | Communication for Social and Behavior Change      |       |
| ECNS 410                                                                                            | Health Economics and Policy                       |       |
| PSCI 431                                                                                            | Politics of Global Migration                      |       |
| PSCI 463                                                                                            | Development Administration                        |       |
| <b>Core Biomedical Perspectives:</b>                                                                |                                                   |       |
| AHHS 430                                                                                            | Health Aspects of Aging                           |       |
| BIOM 427                                                                                            | General Parasitology                              |       |
| BIOM 428                                                                                            | General Parasitology Lab                          |       |
| BIOM 460                                                                                            | Ecology of Infectious Diseases                    |       |
| PHAR 320                                                                                            |                                                   |       |
| PHL 321E                                                                                            | Philosophy & Biomedical Ethics                    |       |
| <b>Content Electives</b>                                                                            |                                                   |       |
| Complete 6 credits from the following courses if not taken to complete a core elective requirement: |                                                   | 6     |
| AHHS 430                                                                                            | Health Aspects of Aging                           |       |
| ANTY 422                                                                                            | Mind, Culture, and Society                        |       |
| ANTY 433                                                                                            | Indigenous Global Health & Healing                |       |
| BIOH 112                                                                                            | Human Form and Function I                         |       |
| BIOH 113                                                                                            | Human Form and Function II                        |       |
| BIOH 462                                                                                            | Principles of Medical Physiology                  |       |

|           |                                                   |
|-----------|---------------------------------------------------|
| BIOM 327  | Vector-Borne Diseases: Public Health Perspectives |
| BIOM 402  | Pathogenic Microbes                               |
| BIOM 427  | General Parasitology                              |
| BIOM 428  | General Parasitology Lab                          |
| BIOM 435  | Virology                                          |
| BIOM 460  | Ecology of Infectious Diseases                    |
| CHTH 414  | Health and Culture: A Global Perspective          |
| CHTH 445  | Health Promotion Practice II                      |
| COMX 204X | International and Development Communication       |
| COMX 415  | Intercultural Communication                       |
| COMX 425  | Communication in Health Organizations             |
| COMX 483  | Communication for Social and Behavior Change      |
| COMX 485  | Social Interaction and Human Well-Being           |
| ECNS 217  | Issues in Economic Development                    |
| ECNS 320  | Public Finance                                    |
| ECNS 450  | Economics of Global Development                   |
| GPHY 121S | Human Geography                                   |
| GPHY 468  | Community & Regional Analysis                     |
| GPHY 469  | Planning & Analysis Laboratory                    |
| HTH 430   | Health and Mind/Body/Spirit                       |
| NUTR 221N | Basic Human Nutrition                             |
| PHAR 320  |                                                   |
| PHL 321E  | Philosophy & Biomedical Ethics                    |
| PSCI 348  | US Multicultural Politics                         |
| PSCI 431  | Politics of Global Migration                      |
| PSCI 448  | Health Care Policy                                |
| PSYX 362  | Multicultural Psychology                          |
| PUBH 101S | Introduction to Public Health                     |
| PUBH 225  | Public Health Policy                              |
| PUBH 475E | Public Health Ethics                              |
| PUBH 498  | Internship                                        |
| S W 300   | Human Behavior & Social Environment               |
| S W 410E  | Social Work Ethics                                |
| S W 423   | Addiction Studies                                 |
| S W 455   | Social Gerontology                                |
| S W 475   | Death, Dying and Grief                            |

Total Hours

21

## School of Social Work

Social work is a human service profession concerned with the prevention of social problems, the maintenance of satisfying social relationships, and the enhancement of human development. It focuses on people and their social environment. Social workers employ a range of knowledge and skills as the basis for constructive intervention on behalf of various client populations. The Bachelor of Social Work degree prepares graduates for generalist social work practice.

The undergraduate major in social work is available for those who wish to prepare for:

1. professional employment in the social services;
2. entry into a graduate school of social work;
3. graduate education in other helping service professions.

- Bachelor of Social Work (p. 185)
- Gerontology Minor (p. 186)

## Bachelor of Social Work General Degree Requirements

To earn a baccalaureate degree, all students must complete successfully, in addition to any other requirements, the University of Montana General Education Requirements. Please refer to the General Education Requirements page (p. 39) for more information.

Additional requirements for graduation can be found on the Degree/Certificate Requirements for Graduation page (p. 36).

Unless otherwise noted in individual program requirements, a minimum grade point average of 2.00 in all work attempted at the University of Montana-Missoula is required for graduation. Please see the Academic Policies and Procedures page (p. 25) for information on how your GPA is calculated.

Courses taken to satisfy the requirements of a major, minor, or certificate program must be completed with a grade of C- or better unless a higher grade is noted in the program requirements.

## Online Program Option

This program may be completed in an online format (<https://catalog.umn.edu/online-programs/definitions/>). Students interested in pursuing an online degree or certificate program are strongly encouraged to contact the offering department to discuss specific program and course modalities (<https://catalog.umn.edu/online-programs/definitions/>) and create a plan of study with an academic advisor. The course requirements listed below may not be consistently offered via online delivery.

## Bachelor of Social Work

- This major requires a minimum cumulative institutional GPA of 2.75.
- A minimum of 41 social work credits are required for this degree.
- Admission into the School of Social Work requires a 2.75 overall GPA, a 3.00 in Social Work courses and completion of 4 of 7 extra departmental courses.

## Course Requirements

| Code                                   | Title                                 | Hours |
|----------------------------------------|---------------------------------------|-------|
| <b>Lower-Division Core Courses</b>     |                                       |       |
| Complete all of the following courses: |                                       |       |
| BIOB 101N                              | Discover Biology                      | 3     |
| or PSYX 250N                           | Fundamentals of Biological Psychology |       |
| ECNS 101S                              | Economic Way of Thinking              | 3     |
| or ECNS 201S                           | Principles of Microeconomics          |       |
| PSCI 210S                              | Intro to American Government          | 3     |
| PSYX 100S                              | Intro to Psychology                   | 3     |
| PSYX 230                               | Developmental Psychology              | 3     |
| PSYX 233                               | Fundamentals of Psychology of Aging   | 3     |



|                                        |                                                              |           |
|----------------------------------------|--------------------------------------------------------------|-----------|
| S W 100S                               | Introduction to Social Welfare                               | 3         |
| S W 200                                | Intro to Social Work Practice                                | 3         |
| SOCI 101S                              | Introduction to Sociology                                    | 3         |
| <b>Upper-Division Core Courses</b>     |                                                              |           |
| Complete all of the following courses: |                                                              |           |
| S W 300                                | Human Behavior & Social Environment                          | 3         |
| S W 310                                | S W Policy & Services                                        | 3         |
| S W 350                                | Social Work Intervention Methods I                           | 3         |
| S W 360                                | Social Work Intervention Methods II                          | 3         |
| S W 400                                | Social Work Research                                         | 3         |
| S W 410E                               | Social Work Ethics                                           | 3         |
| S W 464                                | Cultural Humility in Social Work Practice: Valuing Diversity | 3         |
| S W 487                                | Advanced Practice I                                          | 2         |
| S W 488                                | Advanced Practice II                                         | 2         |
| S W 495                                | Field Work Practicum (2 semesters)                           | 10        |
| <b>Total Hours</b>                     |                                                              | <b>62</b> |

## Four Year Plan

| Course                        | Title                                            | Hours     |
|-------------------------------|--------------------------------------------------|-----------|
| <b>Freshman</b>               |                                                  |           |
| <b>Autumn</b>                 |                                                  |           |
| S W 100S                      | Introduction to Social Welfare                   | 3         |
| WRIT 101                      | College Writing I                                | 4         |
| PSYX 100S                     | Intro to Psychology <sup>1</sup>                 | 3         |
| PSCI 210S                     | Intro to American Government <sup>1</sup>        | 3         |
| Math Course                   |                                                  | 3         |
| HUSC 194                      | Seminar/Workshop                                 | 1         |
| <b>Hours</b>                  |                                                  | <b>17</b> |
| <b>Spring</b>                 |                                                  |           |
| BIOB 101N                     | Discover Biology <sup>1</sup>                    | 3         |
| or PSYX 250N                  | or Fundamentals of Biological Psychology         |           |
| SOCI 101S                     | Introduction to Sociology                        | 3         |
| General Education Requirement |                                                  | 6         |
| Elective                      |                                                  | 1         |
| <b>Hours</b>                  |                                                  | <b>13</b> |
| <b>Sophomore</b>              |                                                  |           |
| <b>Autumn</b>                 |                                                  |           |
| ECNS 101S                     | Economic Way of Thinking <sup>1</sup>            | 3         |
| or ECNS 201S                  | or Principles of Microeconomics                  |           |
| PSYX 230                      | Developmental Psychology <sup>2</sup>            | 3         |
| Intermediate Writing Course   |                                                  | 3         |
| Language Elective             |                                                  | 4         |
| Elective                      |                                                  | 2         |
| <b>Hours</b>                  |                                                  | <b>15</b> |
| <b>Spring</b>                 |                                                  |           |
| S W 200                       | Intro to Social Work Practice                    | 3         |
| PSYX 233                      | Fundamentals of Psychology of Aging <sup>2</sup> | 3         |
| Language Elective             |                                                  | 4         |
| General Education Requirement |                                                  | 6         |
| <b>Hours</b>                  |                                                  | <b>16</b> |
| <b>Junior</b>                 |                                                  |           |
| <b>Autumn</b>                 |                                                  |           |
| S W 300                       | Human Behavior & Social Environment <sup>3</sup> | 3         |
| S W 350                       | Social Work Intervention Methods I <sup>3</sup>  | 3         |
| General Education Requirement |                                                  | 3         |
| Elective                      |                                                  | 6         |
| <b>Hours</b>                  |                                                  | <b>15</b> |

|                               |                                                              |            |
|-------------------------------|--------------------------------------------------------------|------------|
| <b>Spring</b>                 |                                                              |            |
| S W 360                       | Social Work Intervention Methods II <sup>2</sup>             | 3          |
| S W 310                       | Social Work Policy & Services                                | 3          |
| General Education Requirement |                                                              | 4          |
| Elective                      |                                                              | 3          |
| <b>Hours</b>                  |                                                              | <b>13</b>  |
| <b>Senior</b>                 |                                                              |            |
| <b>Autumn</b>                 |                                                              |            |
| S W 400                       | Social Work Research                                         | 3          |
| S W 487                       | Advanced Practice I                                          | 2          |
| S W 495                       | Field Work Practicum                                         | 5          |
| S W 464                       | Cultural Humility in Social Work Practice: Valuing Diversity | 3          |
| Upper Division Elective       |                                                              | 3          |
| <b>Hours</b>                  |                                                              | <b>16</b>  |
| <b>Spring</b>                 |                                                              |            |
| S W 410E                      | Social Work Ethics                                           | 3          |
| S W 488                       | Advanced Practice II                                         | 2          |
| S W 495                       | Field Work Practicum                                         | 5          |
| Upper Division Elective       |                                                              | 3          |
| Elective                      |                                                              | 2          |
| <b>Hours</b>                  |                                                              | <b>15</b>  |
| <b>Total Hours</b>            |                                                              | <b>120</b> |

*Last updated Autumn 2024*

- <sup>1</sup> Four of the seven extra-departmental courses must be completed with a grade of C- or above to enter Social Work classes 300 and above. S W 100S and S W 200 also need to be completed with a cumulative GPA of 3.0.
- <sup>2</sup> Development psych classes covering Lifespan, such as PSYX at the Missoula College may satisfy both PSYX 230 and PSYX 233 requirements.
- <sup>3</sup> Practicum Admission Requirements: Complete S W 100S, S W 200, S W 300, S W 350, S W 360 with combined GPA of 3.0, overall GPA of 2.75 and an approved Practicum Application.

## Gerontology Minor

Students in the Gerontology Minor program will study issues of aging from an interdisciplinary perspective and come to understand the interplay between them, including the health and medical as well as social and psychological needs of older persons. This interdisciplinary minor is housed in the College of Health, and students in any major may complete the program. Students must consult with the gerontology advisor in their department to select elective, practicum, and integrating courses that will meet the requirements of the minor.

## General Degree Requirements

To earn a baccalaureate degree, all students must complete successfully, in addition to any other requirements, the University of Montana General Education Requirements. Please refer to the General Education Requirements page (p. 39) for more information.

Additional requirements for graduation can be found on the Degree/Certificate Requirements for Graduation page (p. 36).

Unless otherwise noted in individual program requirements, a minimum grade point average of 2.00 in all work attempted at the University of Montana-Missoula is required for graduation. Please see the Academic

Policies and Procedures page (p. 25) for information on how your GPA is calculated.

Courses taken to satisfy the requirements of a major, minor, or certificate program must be completed with a grade of C- or better unless a higher grade is noted in the program requirements.

## Minor - Gerontology

### Course Requirements

| Code                                                    | Title                                                                                                | Hours |
|---------------------------------------------------------|------------------------------------------------------------------------------------------------------|-------|
| <b>Complete all of the following courses:</b>           |                                                                                                      |       |
| AHHS 325                                                | Introduction to Gerontology                                                                          | 3     |
| AHHS 430                                                | Health Aspects of Aging                                                                              | 3     |
| PSYX 233                                                | Fundamentals of Psychology of Aging                                                                  | 3     |
| S W 455                                                 | Social Gerontology                                                                                   | 3     |
| <b>Integrating Courses</b> <sup>1</sup>                 |                                                                                                      |       |
| Complete one of the following courses:                  |                                                                                                      | 3     |
| CSD 365                                                 | Acquired Communication and Swallowing Disorders (for Communicative Sciences & Disorders majors)      |       |
| KIN 483                                                 | Exercise Disease & Aging (for Integrative Physiology and Pre-Physical Therapy majors)                |       |
| NEUR 441                                                | CNS Diseases (for Neuroscience majors)                                                               |       |
| PHAR 451                                                | Therapeutics I (for Pharmaceutical Science majors) <sup>2</sup>                                      |       |
| PSYX 233                                                | Fundamentals of Psychology of Aging (for Psychology Majors) <sup>3</sup>                             |       |
| S W 300                                                 | Human Behavior & Social Environment (for Social Work major)                                          |       |
| <b>Practicum Courses</b> <sup>4</sup>                   |                                                                                                      |       |
| Complete at least 3 credits from the following courses: |                                                                                                      | 3     |
| AHHS 395                                                | Geriatric Practicum (for Communicative Sciences & Disorders and Neuroscience majors)                 |       |
| KIN 498                                                 | Internship (for Integrative Physiology and Pre-Physical Therapy and Pre-Occupational Therapy majors) |       |
| PHAR 585                                                | Geriatric APPE (for Pharmaceutical Science majors)                                                   |       |
| PSYX 298                                                | Internship (for Psychology majors)                                                                   |       |
|                                                         | or PSYX 398 Internship                                                                               |       |
| S W 495                                                 | Field Work Practicum (for Social Work majors)                                                        |       |
| <b>Electives</b> <sup>5</sup>                           |                                                                                                      |       |
| Complete 3 credits of the following courses:            |                                                                                                      | 3     |
| AHHS 418                                                | Geriatric Health Care                                                                                |       |
| AHMS 270E                                               | Medical Ethics                                                                                       |       |
| COMX 486                                                | Health and Family Communication                                                                      |       |
| ECNS 410                                                | Health Economics and Policy                                                                          |       |
| PHL 321E                                                | Philosophy & Biomedical Ethics                                                                       |       |
| PSYX 280                                                | Fundamentals of Memory and Cognition                                                                 |       |
| PSYX 348                                                | Trauma and Resilience                                                                                |       |
| PUBH 380                                                | Public Health Nutrition                                                                              |       |
| SOCI 414                                                | Family Violence                                                                                      |       |

|                    |                         |
|--------------------|-------------------------|
| SOCI 332           | Sociology of the Family |
| S W 475            | Death, Dying and Grief  |
| <b>Total Hours</b> | <b>21</b>               |

- <sup>1</sup> This course should be chosen based upon the student's major. A similar course will be identified in other majors not listed here.
- <sup>2</sup> Pharmacy students must complete requirements for the Bachelor of Science in Pharmaceutical Sciences or another baccalaureate degree to receive a minor.
- <sup>3</sup> Psychology students must complete an additional 3 credit elective.
- <sup>4</sup> Students in majors that do not have access to a practicum course may enroll in AHHS 395 for 3 credits of service learning experience compatible with the student's major and interests.
- <sup>5</sup> A student must take a minimum of 3 elective credits with at least 25% of the content focused on gerontology. Students may petition for approval of another elective course.

## School of Speech, Language, Hearing, and Occupational Sciences

The Bachelor of Arts in Communicative Sciences and Disorders prepares students for graduate study in speech-language pathology, audiology, various education specialties, business, and healthcare as well as such fields as developmental and cognitive psychology.

- Communicative Sciences and Disorders B.A. (p. 187)
- Communicative Sciences and Disorders Minor (p. 188)
- Neurodivergence Inclusion and Supports Certificate (p. 189)
- Speech Language Pathology Assistant Certificate (p. 189)

## Communicative Sciences and Disorders B.A.

### General Degree Requirements

To earn a baccalaureate degree, all students must complete successfully, in addition to any other requirements, the University of Montana General Education Requirements. Please refer to the General Education Requirements page (p. 39) for more information.

Additional requirements for graduation can be found on the Degree/Certificate Requirements for Graduation page (p. 36).

Unless otherwise noted in individual program requirements, a minimum grade point average of 2.00 in all work attempted at the University of Montana-Missoula is required for graduation. Please see the Academic Policies and Procedures page (p. 25) for information on how your GPA is calculated.

Courses taken to satisfy the requirements of a major, minor, or certificate program must be completed with a grade of C- or better unless a higher grade is noted in the program requirements.

### Online Program Option

This program may be completed in an online format (<https://catalog.umd.edu/online-programs/definitions/>). Students interested in pursuing an online degree or certificate program are strongly encouraged to contact the offering department to discuss specific program and course modalities (<https://catalog.umd.edu/online-programs/definitions/>).

and create a plan of study with an academic advisor. The course requirements listed below may not be consistently offered via online delivery.

## Bachelor of Arts - Communicative Sciences and Disorders

- All courses with the CSD subject code require a minimum grade of C to count toward the major.
- All other courses require a minimum grade of C-.

### Course Requirements

| Code                                                                            | Title                                                                            | Hours |
|---------------------------------------------------------------------------------|----------------------------------------------------------------------------------|-------|
| <b>Lower-Division Core Courses</b>                                              |                                                                                  |       |
| Complete all of the following courses:                                          |                                                                                  |       |
| CSD 110                                                                         | Foundations of Clinical Practice in Speech-Language Pathology & Audiology        | 3     |
| CSD 205                                                                         | Clinical Application and Observations in Speech-Language Pathology and Audiology | 2     |
| CSD 210                                                                         | Speech & Language Development                                                    | 3     |
| CSD 222                                                                         |                                                                                  | 3     |
| PSYX 100S                                                                       | Intro to Psychology                                                              | 3     |
| PSYX 120                                                                        | Introduction to Psychological Research Methods                                   | 3     |
| <b>Upper-Division Core Courses</b>                                              |                                                                                  |       |
| Complete all of the following courses:                                          |                                                                                  |       |
| CSD 305                                                                         | Clinical Applications of Language Science                                        | 3     |
| CSD 320                                                                         | Clinical Phonetics                                                               | 3     |
| CSD 330                                                                         | Anatomy and Physiology of the Speech and Swallowing Mechanism                    | 3     |
| CSD 331                                                                         | Neurological Bases of Communication and Swallowing                               | 3     |
| CSD 345                                                                         | Developmental Communication Disorders                                            | 3     |
| CSD 365                                                                         | Acquired Communication and Swallowing Disorders                                  | 3     |
| CSD 420                                                                         | Speech Science                                                                   | 3     |
| CSD 430                                                                         | Senior Capstone                                                                  | 3     |
| CSD 450                                                                         | Rehabilitative Audiology                                                         | 3     |
| <b>Biological Science Requirement</b>                                           |                                                                                  |       |
| Complete one of the following courses:                                          |                                                                                  | 3-4   |
| BIOB 101N                                                                       | Discover Biology                                                                 |       |
| BIOB 160                                                                        | Principles of Living Systems                                                     |       |
| & BIOB 161N                                                                     | and Principles of Living Systems Lab                                             |       |
| <b>Physical Science Requirement</b> <sup>1</sup>                                |                                                                                  |       |
| Complete one chemistry or physics course, which must be a minimum of 3 credits. |                                                                                  | 3     |
| <b>Statistics Requirement</b>                                                   |                                                                                  |       |
| Complete one of the following courses:                                          |                                                                                  | 3-4   |
| PSYX 222                                                                        | Psychological Statistics                                                         |       |
| SOCI 202                                                                        | Social Statistics                                                                |       |
| STAT 216                                                                        | Introduction to Statistics                                                       |       |
| <b>Psychology Requirement</b>                                                   |                                                                                  |       |
| Complete one of the following courses:                                          |                                                                                  | 3     |
| PSYX 230                                                                        | Developmental Psychology                                                         |       |

|                                                                                                |                                     |
|------------------------------------------------------------------------------------------------|-------------------------------------|
| PSYX 233                                                                                       | Fundamentals of Psychology of Aging |
| PSYX 330                                                                                       | Child Development                   |
| <b>Language Requirement</b>                                                                    |                                     |
| Compete the University of Montana general education Modern and Classical Language requirement. |                                     |
| 4-8                                                                                            |                                     |
| <b>Total Hours</b>                                                                             | <b>60-66</b>                        |

<sup>1</sup> Students may take another physical science course with the approval of the department.

## Communicative Sciences and Disorders Minor

### General Degree Requirements

To earn a baccalaureate degree, all students must complete successfully, in addition to any other requirements, the University of Montana General Education Requirements. Please refer to the General Education Requirements page (p. 39) for more information.

Additional requirements for graduation can be found on the Degree/Certificate Requirements for Graduation page (p. 36).

Unless otherwise noted in individual program requirements, a minimum grade point average of 2.00 in all work attempted at the University of Montana-Missoula is required for graduation. Please see the Academic Policies and Procedures page (p. 25) for information on how your GPA is calculated.

Courses taken to satisfy the requirements of a major, minor, or certificate program must be completed with a grade of C- or better unless a higher grade is noted in the program requirements.

### Online Program Option

This program may be completed in an online format (<https://catalog.umd.edu/online-programs/definitions/>). Students interested in pursuing an online degree or certificate program are strongly encouraged to contact the offering department to discuss specific program and course modalities (<https://catalog.umd.edu/online-programs/definitions/>) and create a plan of study with an academic advisor. The course requirements listed below may not be consistently offered via online delivery.

## Minor - Communicative Sciences and Disorders

- All courses with the CSD subject code require a minimum grade of C to count toward the major.
- All other courses require a minimum grade of C-.

### Course Requirements

| Code                                   | Title                                                                     | Hours |
|----------------------------------------|---------------------------------------------------------------------------|-------|
| <b>Core Courses</b>                    |                                                                           |       |
| Complete all of the following courses: |                                                                           |       |
| CSD 110                                | Foundations of Clinical Practice in Speech-Language Pathology & Audiology | 3     |
| CSD 210                                | Speech & Language Development                                             | 3     |
| CSD 222                                | Introduction to Sound and Hearing                                         | 3     |
| LING 270S                              | Intro to Linguistics                                                      | 3     |

**Electives**

|                                                |                                                                                                        |           |
|------------------------------------------------|--------------------------------------------------------------------------------------------------------|-----------|
| Complete 6 credits from the following courses: |                                                                                                        | 6         |
| CSD 320                                        | Clinical Phonetics                                                                                     |           |
| CSD 330                                        | Anatomy and Physiology of the Speech and Swallowing Mechanism                                          |           |
| CSD 331                                        | Neurological Bases of Communication and Swallowing                                                     |           |
| CSD 365                                        | Acquired Communication and Swallowing Disorders                                                        |           |
| CSD 396                                        | Inclusive Campus-Based Practices for Neurodiverse Persons/Service Learning (taken twice for 4 credits) |           |
| CSD 445                                        | Social Communication Skills, Behavior, and Neurodiversity                                              |           |
| CSD 450                                        | Rehabilitative Audiology                                                                               |           |
| CSD 480                                        | Multicultural Professional Practice                                                                    |           |
| <b>Total Hours</b>                             |                                                                                                        | <b>18</b> |

## Neurodivergence Inclusion and Supports Certificate

### General Certificate Requirements

Additional requirements for graduation can be found on the Degree/Certificate Requirements for Graduation page (p. 36).

Unless otherwise noted in individual program requirements, a minimum grade point average of 2.00 in all work attempted at the University of Montana-Missoula is required for graduation. Please see the Academic Policies and Procedures page (p. 25) for information on how your GPA is calculated.

Courses taken to satisfy the requirements of a major, minor, or certificate program must be completed with a grade of C- or better unless a higher grade is noted in the program requirements.

### Online Program Option

This program may be completed in an online format (<https://catalog.umn.edu/online-programs/definitions/>). Students interested in pursuing an online degree or certificate program are strongly encouraged to contact the offering department to discuss specific program and course modalities (<https://catalog.umn.edu/online-programs/definitions/>) and create a plan of study with an academic advisor. The course requirements listed below may not be consistently offered via online delivery.

## Post-Secondary Certificate - Neurodivergence Inclusion and Supports

### Course Requirements

| Code                                   | Title                                                     | Hours |
|----------------------------------------|-----------------------------------------------------------|-------|
| <b>Required Courses</b>                |                                                           |       |
| Complete all of the following courses: |                                                           |       |
| CSD 445                                | Social Communication Skills, Behavior, and Neurodiversity | 3     |
| EDSP 456                               | Introduction to Methods for Low Incidence Disabilities    | 3     |
| EDSP 461                               | Positive Behavior Supports                                | 3     |
| <b>Experiential Learning</b>           |                                                           |       |

Complete one of the following courses:

3-4

|          |                                                                                                        |
|----------|--------------------------------------------------------------------------------------------------------|
| CSD 396  | Inclusive Campus-Based Practices for Neurodiverse Persons/Service Learning (taken twice for 4 credits) |
| EDSP 426 | Introduction to Transition & Community                                                                 |

**Total Hours**

**12-13**

## Speech Language Pathology Assistant Certificate

### General Certificate Requirements

Additional requirements for graduation can be found on the Degree/Certificate Requirements for Graduation page (p. 36).

Unless otherwise noted in individual program requirements, a minimum grade point average of 2.00 in all work attempted at the University of Montana-Missoula is required for graduation. Please see the Academic Policies and Procedures page (p. 25) for information on how your GPA is calculated.

Courses taken to satisfy the requirements of a major, minor, or certificate program must be completed with a grade of C- or better unless a higher grade is noted in the program requirements.

### Online Program Option

This program may be completed in an online format (<https://catalog.umn.edu/online-programs/definitions/>). Students interested in pursuing an online degree or certificate program are strongly encouraged to contact the offering department to discuss specific program and course modalities (<https://catalog.umn.edu/online-programs/definitions/>) and create a plan of study with an academic advisor. The course requirements listed below may not be consistently offered via online delivery.

## Post-Secondary Certificate - Speech Language Pathology Assistant

- This certificate requires a minimum grade of C for all required courses.

### Course Requirements

| Code                                          | Title                                                                            | Hours     |
|-----------------------------------------------|----------------------------------------------------------------------------------|-----------|
| <b>Complete all of the following courses:</b> |                                                                                  |           |
| CSD 110                                       | Foundations of Clinical Practice in Speech-Language Pathology & Audiology        | 3         |
| CSD 205                                       | Clinical Application and Observations in Speech-Language Pathology and Audiology | 2         |
| CSD 210                                       | Speech & Language Development                                                    | 3         |
| CSD 320                                       | Clinical Phonetics                                                               | 3         |
| CSD 330                                       | Anatomy and Physiology of the Speech and Swallowing Mechanism                    | 3         |
| CSD 345                                       | Developmental Communication Disorders                                            | 3         |
| CSD 365                                       | Acquired Communication and Swallowing Disorders                                  | 3         |
| <b>Total Hours</b>                            |                                                                                  | <b>20</b> |

## Skaggs School of Pharmacy

The Skaggs School of Pharmacy, established in 1907 at Montana State College, was transferred to the University of Montana in 1913 and currently resides in the College of Health. The Skaggs School of Pharmacy has two departments: Pharmacy Practice and Biomedical and Pharmaceutical Sciences. The School offers undergraduate, graduate, and professional degree programs, including the Doctor of Pharmacy program which is fully accredited by the Accreditation Council for Pharmacy Education (<https://www.acpe-accredit.org/>).

### Doctor of Pharmacy

Students interested in clinical practice as a licensed pharmacist should explore this program. The curriculum offered by the Skaggs School of Pharmacy consists of a six-year program leading to Doctor of Pharmacy (Pharm.D.) degree. The first two years, or pre-professional portion of the curriculum, are spent in studies of the basic biological and physical sciences, chemistry, and other pre-requisites. The final four years are in the professional program, which is divided into three years of didactic coursework followed by a year of direct practice in patient care through experiential courses in a variety of practice sites in the community. During the first three years of the professional program, students devote their time to the study of the biomedical and pharmaceutical sciences and pharmacy practice. Areas of study include biochemistry, microbiology, medicinal chemistry, pharmaceuticals, pharmacology, social behavioral and administrative sciences, and therapeutics. The final professional year is entirely experiential and designed to fully prepare students to enter the profession as pharmacist patient care providers. The professional curriculum includes required and elective coursework. Students admitted to the Doctor of Pharmacy program also have the opportunity to pursue a dual degree (M.B.A., M.P.H., M.S. in Pharmaceutical Sciences) or a B.S. in Pharmaceutical Sciences degree. Post graduate, pharmacy residency, or fellowship training is encouraged as those with an advanced degree or residency training are in demand for research, academic positions, and specialty advanced clinical practice positions.

To practice as a pharmacist in the United States, one must become a registered pharmacist. This requires completing practical experience under the direction of registered pharmacists, graduating with a Pharm.D. degree from an accredited Doctor of Pharmacy professional program, and passing both the NAPLEX and MPJE exams administered by the National Association of Boards of Pharmacy.

Career opportunities exist in the fields of community pharmacy, ambulatory care pharmacy, hospital and other institutional pharmacy, federal or state government service, public health agencies, and with the pharmaceutical industry. Those with advanced degrees or residency training are in demand for research positions, specialty clinical practice, and clinical faculty positions.

### Pre-professional Program

Pre-professional (pre-pharmacy) curriculum, which requires a minimum of two years of full-time study, may be taken at any accredited college or university. Students at the University of Montana-Missoula may enter the pre-pharmacy program during any semester. It is recommended that students considering the Pharmacy professional program declare pre-pharmacy as their major as early as possible to ensure appropriate advising. Upon designating Pre-Pharmacy as a major, students will be assigned an advisor from within the School of Pharmacy.

### Professional Pharmacy Program

Students must apply for admission to the Pharm.D. professional program. Class size in the professional pharmacy program is restricted and admission to the program is competitive. For information on program requirements and the application procedure, refer to Prospective Students on the Pharmacy program website (<http://health.umt.edu/pharmacy/>).

### B.S. in Pharmaceutical Sciences

Students interested in research instead of clinical practice should consider the Bachelor of Science degree in Pharmaceutical Sciences. The four-year non-professional option in the B.S. in Pharmaceutical Sciences (BSPS) program is intended for students with interests in research, pharmaceutical or biotechnical companies, or government agencies. A professional option for the degree is restricted to students already enrolled in the Doctor of Pharmacy program.

### High School Preparation

In addition to the general University admission requirements, coursework in algebra, trigonometry, biology, chemistry, physics, and computers/information technology are recommended for either the Pharm.D. or BSPS degree.

### Graduate Degrees in Pharmaceutical & Biomedical Sciences

The School offers graduate degree programs in several areas of pharmaceutical and biomedical sciences. These are research-oriented degrees designed to prepare graduates to create new knowledge and medications for future use in patient care. Students interested in a research career should review the specific requirements for seeking a graduate degree. These graduate-level programs provide education and training in pharmaceutical sciences and drug design, toxicology, and molecular genetics. Program graduates are well prepared for careers in academia, government, and industry.

### Graduate Programs

Students interested in pursuing a graduate research degree should have completed a baccalaureate degree program. Students must apply to the graduate program. Information about the admission requirements and application process are posted on the Department of Biomedical and Pharmaceutical Sciences webpage (<http://health.umt.edu/biomed/graduate/default.php>).

## Department of Pharmacy Practice

Vincent J. Colucci, Chair

The Department of Pharmacy Practice provides academic course work for the Doctor of Pharmacy degree, precept students during their experiential rotations, conducts research in the broad area of health care, scholarship of teaching and learning, and provides service to the profession of pharmacy and other health care disciplines.

## Department of Biomedical and Pharmaceutical Sciences

Elizabeth A. Putnam, Chair

The Department of Biomedical and Pharmaceutical Sciences offers a curriculum in support of the Doctor of Pharmacy (Pharm.D.) degree and undergraduate and graduate programs in the biomedical and



pharmaceutical sciences. Graduate degree programs include the M.S. and Ph.D. in Pharmaceutical Sciences and Drug Design and Toxicology.

- Pharmaceutical Sciences B.S. (p. 191)
- Pharmaceutical Science B.S. - Non-Professional Concentration (p. 192)
- Doctor of Pharmacy (p. 193)

## Pharmaceutical Sciences B.S.

### General Degree Requirements

To earn a baccalaureate degree, all students must complete successfully, in addition to any other requirements, the University of Montana General Education Requirements. Please refer to the General Education Requirements page (p. 39) for more information.

Additional requirements for graduation can be found on the Degree/Certificate Requirements for Graduation page (p. 36).

Unless otherwise noted in individual program requirements, a minimum grade point average of 2.00 in all work attempted at the University of Montana-Missoula is required for graduation. Please see the Academic Policies and Procedures page (p. 25) for information on how your GPA is calculated.

Courses taken to satisfy the requirements of a major, minor, or certificate program must be completed with a grade of C- or better unless a higher grade is noted in the program requirements.

## Bachelor of Science - Pharmaceutical Sciences

- The Skaggs School of Pharmacy offers two concentrations in the the B.S. in Pharmaceutical Sciences. This is the professional option that is restricted to students admitted to the Doctor of Pharmacy program. To be eligible for licensure as a pharmacist, students must obtain the Doctor of Pharmacy degree. See the Doctor of Pharmacy (<http://catalog.umn.edu/colleges-schools-programs/health-professions-biomedical-sciences/skaggs-school-of-pharmacy/doctor-of-pharmacy/>) catalog page for more information.
  - Students must be admitted to the Doctor of Pharmacy degree program and complete all required coursework for the first two years including the first IPPE. Students enrolled in the professional pharmacy curriculum are assessed a supplemental fee. This fee does not apply to Pre-Pharmacy students. Refer to the fees (<https://catalog.umn.edu/expenses-services-organizations/expenses/>) section of the catalog for details.
  - In addition, students must demonstrate proficiency in pharmaceutical calculation by successfully completing a competency assessment prior to entering the second professional year.
- For students seeking an undergraduate degree to prepare for research rather than clinical practice, please see the B.S. in Pharmaceutical Sciences (non-professional) concentration (p. 192).

### Course Requirements

| Code                                   | Title                     | Hours |
|----------------------------------------|---------------------------|-------|
| Biology                                |                           |       |
| Complete all of the following courses: |                           |       |
| BIOH 112                               | Human Form and Function I | 3     |

|          |                                |   |
|----------|--------------------------------|---|
| BIOH 113 | Human Form and Function II     | 3 |
| BIOB 260 | Cellular and Molecular Biology | 4 |

#### General and Organic Chemistry

Complete all of the following courses:

|                       |                                                   |   |
|-----------------------|---------------------------------------------------|---|
| CHMY 141N & CHMY 142N | College Chemistry I and College Chemistry I Lab   | 5 |
| CHMY 143N & CHMY 144N | College Chemistry II and College Chemistry II Lab | 5 |
| CHMY 221 & CHMY 222   | Organic Chemistry I and Organic Chemistry I Lab   | 5 |
| CHMY 223              | Organic Chemistry II                              | 3 |

#### Physics

Complete all of the following courses:

|           |                              |   |
|-----------|------------------------------|---|
| PHSX 205N | College Physics I            | 4 |
| PHSX 206N | College Physics I Laboratory | 1 |

#### Mathematics

Complete the following course:

|       |                  |   |
|-------|------------------|---|
| M 162 | Applied Calculus | 4 |
|-------|------------------|---|

Complete one of the following courses:

|          |                            |   |
|----------|----------------------------|---|
| STAT 216 | Introduction to Statistics | 4 |
| PSYX 222 | Psychological Statistics   | 4 |
| SOCI 202 | Social Statistics          | 4 |

#### Communication & Social Sciences

Complete all of the following courses:

|              |                                 |   |
|--------------|---------------------------------|---|
| COMX 111A    | Introduction to Public Speaking | 3 |
| or THTR 120A | Introduction to Acting I        | 3 |
| PSYX 100S    | Intro to Psychology             | 3 |
| or SOCI 101S | Introduction to Sociology       | 3 |

#### Upper-Division Core Courses

Complete all of the following courses:

|                     |                                                                     |   |
|---------------------|---------------------------------------------------------------------|---|
| PHAR 329            | Microbes & Medicines                                                | 4 |
| PHAR 331            | Pharmaceutics                                                       | 4 |
| PHAR 341 & PHAR 361 | Pharmaceutical Pathophysiology I and Pharmaceutical Science Lab I   | 5 |
| PHAR 342 & PHAR 362 | Pharmaceutical Pathophysiology II and Pharmaceutical Science Lab II | 5 |
| PHAR 371            | Integrated Studies I                                                | 1 |
| PHAR 372            | Integrated Studies II                                               | 1 |
| PHAR 381            | Pharmaceutical Biochemistry                                         | 4 |
| PHAR 421            | Medicinal Chemistry I                                               | 3 |
| PHAR 422            | Medicinal Chemistry II                                              | 3 |
| PHAR 443            | Pharmacology & Toxicology I                                         | 4 |
| PHAR 444            | Pharmacology & Toxicology II                                        | 4 |

#### Clinical Sciences

Complete all of the following courses:

|                     |                                           |   |
|---------------------|-------------------------------------------|---|
| PHAR 432            | Clinical Pharmacokinetics                 | 3 |
| PHAR 451 & PHAR 471 | Therapeutics I and Integrated Studies III | 4 |
| PHAR 452 & PHAR 472 | Therapeutics II and Integrated Studies IV | 4 |

#### Social, Behavioral & Administrative Sciences

|                     |                                                 |   |
|---------------------|-------------------------------------------------|---|
| PHAR 300 & PHAR 360 | Pharmacy Practice I and Pharmacy Practice Lab I | 5 |
|---------------------|-------------------------------------------------|---|

|                                                          |                                                          |            |
|----------------------------------------------------------|----------------------------------------------------------|------------|
| PHAR 310                                                 | Pharmacy Practice II                                     | 2          |
| PHAR 311                                                 | Healthy People                                           | 1          |
| PHAR 350                                                 | Introduction to Drug Information                         | 1          |
| PHAR 412<br>& PHAR 463                                   | Pharmacy Practice III<br>and Pharmaceutical Care Lab III | 3          |
| PHAR 460                                                 | Pharmaceutical Care Lab II                               | 1          |
| <b>Introductory Pharmacy Practice Experiences (IPPE)</b> |                                                          |            |
| Complete all of the following courses:                   |                                                          |            |
| PHAR 480                                                 | Community Pharmacy IPPE                                  | 3          |
| <b>Total Hours</b>                                       |                                                          | <b>112</b> |

## Pharmaceutical Science B.S. - Non-Professional Concentration

The Skaggs School of Pharmacy offers two concentrations in the B.S. in Pharmaceutical Sciences. This is the non-professional concentration that is open to all students whose primary career interests are in research and discovery, careers at pharmaceutical and biotechnology companies, and work in government institutions and agencies. This degree offers a broad pharmaceutical sciences background that will prepare students for work in disciplines critical to the discovery and development of new drugs and therapies as well as agencies regulating these disciplines. While it also meets pre-pharmacy requirements, it is not required for applying to the professional Doctor of Pharmacy program. Courses provided through the Doctor of Pharmacy program will have additional fees attached.

Note: Students enrolled in the Doctor of Pharmacy program who are interested in the B.S. in Pharmaceutical Sciences should look at the professional concentration in the B.S. in Pharmaceutical Sciences (<https://catalog.umn.edu/colleges-schools-programs/health/skaggs-school-of-pharmacy/bs-pharmaceutical-sciences/>).

## General Degree Requirements

To earn a baccalaureate degree, all students must complete successfully, in addition to any other requirements, the University of Montana General Education Requirements. Please refer to the General Education Requirements page (p. 39) for more information.

Additional requirements for graduation can be found on the Degree/Certificate Requirements for Graduation page (p. 36).

Unless otherwise noted in individual program requirements, a minimum grade point average of 2.00 in all work attempted at the University of Montana-Missoula is required for graduation. Please see the Academic Policies and Procedures page (p. 25) for information on how your GPA is calculated.

Courses taken to satisfy the requirements of a major, minor, or certificate program must be completed with a grade of C- or better unless a higher grade is noted in the program requirements.

## Bachelor of Science - Pharmaceutical Sciences; Non-Professional Concentration

### Course Requirements

| Code                                       | Title                                                | Hours     |
|--------------------------------------------|------------------------------------------------------|-----------|
| <b>Biology</b>                             |                                                      |           |
| Complete all of the following courses:     |                                                      |           |
| BIOH 112                                   | Human Form and Function I                            | 3         |
| BIOH 113                                   | Human Form and Function II                           | 3         |
| BIOB 260                                   | Cellular and Molecular Biology                       | 4         |
| <b>General and Organic Chemistry</b>       |                                                      |           |
| Complete all of the following courses:     |                                                      |           |
| CHMY 141N<br>& CHMY 142N                   | College Chemistry I<br>and College Chemistry I Lab   | 5         |
| CHMY 143N<br>& CHMY 144N                   | College Chemistry II<br>and College Chemistry II Lab | 5         |
| CHMY 221<br>& CHMY 222                     | Organic Chemistry I<br>and Organic Chemistry I Lab   | 5         |
| CHMY 223                                   | Organic Chemistry II                                 | 3         |
| <b>Physics</b>                             |                                                      |           |
| Complete all of the following courses:     |                                                      |           |
| PHSX 205N                                  | College Physics I                                    | 4         |
| PHSX 206N                                  | College Physics I Laboratory                         | 1         |
| <b>Mathematics</b>                         |                                                      |           |
| Complete the following course:             |                                                      |           |
| M 162                                      | Applied Calculus                                     | 4         |
| Complete one of the following courses:     |                                                      |           |
| STAT 216                                   | Introduction to Statistics                           |           |
| PSYX 222                                   | Psychological Statistics                             |           |
| SOCI 202                                   | Social Statistics                                    |           |
| <b>Communication &amp; Social Sciences</b> |                                                      |           |
| Complete all of the following courses:     |                                                      |           |
| COMX 111A                                  | Introduction to Public Speaking                      | 3         |
| or THTR 120A                               | Introduction to Acting I                             |           |
| PSYX 100S                                  | Intro to Psychology                                  | 3         |
| or SOCI 101S                               | Introduction to Sociology                            |           |
| <b>Upper-Division Core Courses</b>         |                                                      |           |
| Complete all of the following courses:     |                                                      |           |
| PHAR 329                                   | Microbes & Medicines                                 | 4         |
| PHAR 331                                   | Pharmaceutics                                        | 4         |
| PHAR 341                                   | Pharmaceutical Pathophysiology I                     | 4         |
| PHAR 342                                   | Pharmaceutical Pathophysiology II                    | 4         |
| PHAR 381                                   | Pharmaceutical Biochemistry                          | 4         |
| PHAR 421                                   | Medicinal Chemistry I                                | 3         |
| PHAR 422                                   | Medicinal Chemistry II                               | 3         |
| PHAR 432                                   | Clinical Pharmacokinetics                            | 3         |
| PHAR 443                                   | Pharmacology & Toxicology I                          | 4         |
| PHAR 444                                   | Pharmacology & Toxicology II                         | 4         |
| PHAR 494                                   | Seminar                                              | 1         |
| <b>Total Hours</b>                         |                                                      | <b>85</b> |

# Pharmacy, Doctor of (Pharm.D.)

## Licensure in Montana

An applicant for licensure as a registered pharmacist in Montana must pass national examinations as required by the Montana State Board of Pharmacy. To qualify for the examinations, the applicant must be of good moral character and a graduate of an accredited school of pharmacy with a Doctor of Pharmacy degree; however, an applicant will not receive a license until all requirements have been met.

- Pre-pharmacy coursework must be completed before entering the professional pharmacy program.
- Students should note some pre-pharmacy courses have prerequisites and they should consider that when planning their schedules.
- Applicants to the professional pharmacy program must present proof of having completed at least 20 hours of observation in a pharmacy, other health care or social field, a writing assignment about the experience, and one evaluation form from someone involved with the applicant in such an experience.
- The Pharmacy College Admission Test (PCAT) must be taken within two years of application. Applications for the professional program are submitted through the PharmCAS system. See the School's prospective student webpage (<https://www.umt.edu/pharmacy/prospective-students/>) for more information.

## Doctor of Pharmacy

- Students must apply for admission to the professional program (<http://health.umt.edu/pharmacy/>). Students enrolled in the professional pharmacy curriculum are assessed a supplemental fee. This fee does not apply to pre-pharmacy students. Refer to the fees (<https://catalog.umt.edu/expenses-services-organizations/expenses/>) section of this catalog for details.
- Students must demonstrate proficiency in pharmaceutical calculation by successfully completing a competency assessment prior to entering the second professional year.

## Special Degree Requirements

Refer to graduation requirements (p. 36) listed previously in the catalog.

Doctor of Pharmacy students must:

1. Meet the general University requirements for graduation.
2. Have a 2.5 GPA to start the Pharm.D. program.
3. Earn a grade point average of 2.0 or higher in each of the following areas:
  - a. all courses attempted at The University of Montana-Missoula (cumulative institutional GPA).
  - b. all courses which carry a pharmacy (PHAR) prefix (pharmacy GPA).
  - c. all required courses in the professional pharmacy curriculum (professional GPA).
4. Required pharmacy course work must be completed with a grade of C- or better.
5. Complete at least six full academic years, including pre-pharmacy instruction, and a minimum of eight semesters of professional instruction as a full-time student registered for a minimum of twelve credits per semester.
6. Complete not less than 204 credits of course work with a minimum of 142 credits in the professional program.

7. Complete all other accreditation-required activities for pharmacy students (ACPE Standards 2016).

## Course Requirements

| Code                                                                                     | Title                                                               | Hours |
|------------------------------------------------------------------------------------------|---------------------------------------------------------------------|-------|
| <b>Biology</b>                                                                           |                                                                     |       |
| Complete all of the following courses:                                                   |                                                                     |       |
| BIOH 112                                                                                 | Human Form and Function I                                           | 3     |
| BIOH 113                                                                                 | Human Form and Function II                                          | 3     |
| BIOB 260                                                                                 | Cellular and Molecular Biology                                      | 4     |
| <b>General and Organic Chemistry</b>                                                     |                                                                     |       |
| Complete all of the following courses:                                                   |                                                                     |       |
| CHMY 141N & CHMY 142N                                                                    | College Chemistry I and College Chemistry I Lab                     | 5     |
| CHMY 143N & CHMY 144N                                                                    | College Chemistry II and College Chemistry II Lab                   | 5     |
| CHMY 221 & CHMY 222                                                                      | Organic Chemistry I and Organic Chemistry I Lab                     | 5     |
| CHMY 223                                                                                 | Organic Chemistry II                                                | 3     |
| <b>Physics</b>                                                                           |                                                                     |       |
| Complete all of the following courses:                                                   |                                                                     |       |
| PHSX 205N                                                                                | College Physics I                                                   | 4     |
| PHSX 206N                                                                                | College Physics I Laboratory                                        | 1     |
| <b>Mathematics</b>                                                                       |                                                                     |       |
| Complete the following course:                                                           |                                                                     |       |
| M 162                                                                                    | Applied Calculus                                                    | 4     |
| Complete one of the following courses:                                                   |                                                                     |       |
| STAT 216                                                                                 | Introduction to Statistics                                          |       |
| PSYX 222                                                                                 | Psychological Statistics                                            |       |
| SOCI 202                                                                                 | Social Statistics                                                   |       |
| <b>Communication &amp; Social Sciences</b>                                               |                                                                     |       |
| Complete all of the following courses:                                                   |                                                                     |       |
| COMX 111A or THTR 120A                                                                   | Introduction to Public Speaking or Introduction to Acting I         | 3     |
| PSYX 100S or SOCI 101S                                                                   | Intro to Psychology or Introduction to Sociology                    | 3     |
| WRIT 101                                                                                 | College Writing I                                                   | 4     |
| <b>Pre-Pharmacy Electives</b>                                                            |                                                                     |       |
| Complete 11 elective credits. Speak with your advisor about completing this requirement. |                                                                     | 11    |
| <b>Pharmaceutical &amp; Biomedical Sciences</b>                                          |                                                                     |       |
| Complete all of the following courses:                                                   |                                                                     |       |
| PHAR 329                                                                                 | Microbes & Medicines                                                | 4     |
| PHAR 331                                                                                 | Pharmaceutics                                                       | 4     |
| PHAR 341 & PHAR 361                                                                      | Pharmaceutical Pathophysiology I and Pharmaceutical Science Lab I   | 5     |
| PHAR 342 & PHAR 362                                                                      | Pharmaceutical Pathophysiology II and Pharmaceutical Science Lab II | 5     |
| PHAR 371                                                                                 | Integrated Studies I                                                | 1     |
| PHAR 372                                                                                 | Integrated Studies II                                               | 1     |
| PHAR 381                                                                                 | Pharmaceutical Biochemistry                                         | 4     |
| PHAR 421                                                                                 | Medicinal Chemistry I                                               | 3     |
| PHAR 422                                                                                 | Medicinal Chemistry II                                              | 3     |
| PHAR 443                                                                                 | Pharmacology & Toxicology I                                         | 4     |

|                                                                                                         |                                                                               |            |
|---------------------------------------------------------------------------------------------------------|-------------------------------------------------------------------------------|------------|
| PHAR 444                                                                                                | Pharmacology & Toxicology II                                                  | 4          |
| <b>Clinical Sciences</b>                                                                                |                                                                               |            |
| Complete all of the following courses:                                                                  |                                                                               |            |
| PHAR 432                                                                                                | Clinical Pharmacokinetics                                                     | 3          |
| PHAR 451<br>& PHAR 471                                                                                  | Therapeutics I<br>and Integrated Studies III                                  | 4          |
| PHAR 452<br>& PHAR 472                                                                                  | Therapeutics II<br>and Integrated Studies IV                                  | 4          |
| PHAR 553<br>& PHAR 571                                                                                  | Therapeutics III<br>and Integrated Studies V                                  | 5          |
| PHAR 554<br>& PHAR 563<br>& PHAR 572                                                                    | Therapeutics IV<br>and Pharmaceutical Care Lab V<br>and Integrated Studies VI | 6          |
| PHAR 565                                                                                                | Pharmacy APPE Preparation                                                     | 3          |
| <b>Social, Behavioral &amp; Administrative Sciences</b>                                                 |                                                                               |            |
| PHAR 300<br>& PHAR 360                                                                                  | Pharmacy Practice I<br>and Pharmacy Practice Lab I                            | 5          |
| PHAR 310                                                                                                | Pharmacy Practice II                                                          | 2          |
| PHAR 311                                                                                                | Healthy People                                                                | 1          |
| PHAR 350                                                                                                | Introduction to Drug Information                                              | 1          |
| PHAR 412<br>& PHAR 463                                                                                  | Pharmacy Practice III<br>and Pharmaceutical Care Lab III                      | 3          |
| PHAR 460                                                                                                | Pharmaceutical Care Lab II                                                    | 1          |
| PHAR 505<br>& PHAR 560                                                                                  | Pharmacy Practice IV<br>and Pharmaceutical Care Lab IV                        | 4          |
| PHAR 506                                                                                                | Pharmacy Practice V                                                           | 3          |
| PHAR 514E                                                                                               | Case Studies in Pharmaceutical Ethics                                         | 3          |
| PHAR 550                                                                                                | Drug Literature Eval                                                          | 2          |
| PHAR 559                                                                                                | Public Health and Pharmacoeconomics                                           | 3          |
| 3 credits of elective courses. Please see your advisor for courses that will complete this requirement. |                                                                               | 3          |
| <b>Introductory Pharmacy Practice Experiences (IPPE)</b>                                                |                                                                               |            |
| Complete all of the following courses:                                                                  |                                                                               |            |
| PHAR 480                                                                                                | Community Pharmacy IPPE                                                       | 3          |
| PHAR 481                                                                                                | Hospital Pharmacy IPPE                                                        | 3          |
| PHAR 579                                                                                                | Community Pharmacy APPE                                                       | 6          |
| PHAR 580                                                                                                | Hospital Pharmacy APPE                                                        | 6          |
| PHAR 581                                                                                                | Inpatient APPE                                                                | 6          |
| PHAR 582                                                                                                | AMB Care APPE                                                                 | 6          |
| Complete 18 credits of the following courses:                                                           |                                                                               | 18         |
| PHAR 583                                                                                                | Drug Information APPE                                                         |            |
| PHAR 584                                                                                                | Specialized Services APPE                                                     |            |
| PHAR 585                                                                                                | Geriatric APPE                                                                |            |
| PHAR 586                                                                                                | Clinical Specialty APPE                                                       |            |
| PHAR 587                                                                                                | Administrative APPE                                                           |            |
| PHAR 588                                                                                                | Research APPE                                                                 |            |
| PHAR 589                                                                                                | Education APPE                                                                |            |
| <b>Total Hours</b>                                                                                      |                                                                               | <b>204</b> |

## Pre-Medical Sciences

Mark A. Pershouse, Director and Associate Professor

Health care continues to be one of the most rapidly expanding areas of our society. Careers in the health professions have expanded both in

numbers and in the variety of opportunities. The rewards of a career in health care include excellent salaries, stability of employment, geographic mobility, and the opportunity to help other people. The Pre-Medical Sciences Program is an inclusive, non-judgmental advising program that helps students become well-informed, well-prepared applicants to programs in allopathic medicine, osteopathic medicine, chiropractic medicine, dentistry, naturopathic medicine, optometry, physician assistant studies, podiatry, and veterinary medicine.

## PreMed Intake Path

For students interested in pursuing a career in the health professions, the University of Montana has begun a new PreMed Intake Path. This one-year long major is designed to expose students to the academic rigor associated with science courses at UM and to expose the students to the breadth of career opportunities in the health professions without causing the student to lose ground on other students in the discipline.

During the first year and beginning at UM's Fall Orientation and/or Bear Tracks, students are advised through a combination of a Freshman PreMed advisor (Mark Pershouse or Jason Granvold) and their academic advisor and recommended attendance in a weekly two-hour course, HMED 140 - Introduction to Health Professions. This course covers the selection of a major, introduces the students to a wide variety of health care careers, and begins to teach the skills required to apply successfully to health professions schools. Once a major is selected (before the end of the first year, ideally), students will be assigned a major-specific advisor to assist them in preparation for their chosen health care path. This advisor typically is in addition to their academic advisor for the major.

Students are encouraged to meet with the Health Professions advisor each semester to continue with the health professional school pre-requisite academic plan and to prepare for a competitive application.

## Fall

| Code                                 | Title                                                                | Hours        |
|--------------------------------------|----------------------------------------------------------------------|--------------|
| CHMY 141N<br>& CHMY 142N             | College Chemistry I<br>and College Chemistry I Lab                   | 5            |
| BIOB 160<br>& BIOB 161N              | Principles of Living Systems<br>and Principles of Living Systems Lab | 4            |
| HMED 140                             | Introduction to Health Professions                                   | 2            |
| <b>One of the following courses:</b> |                                                                      | <b>3-4</b>   |
| WRIT 101                             | College Writing I                                                    |              |
| M 121                                | College Algebra                                                      |              |
| M 151                                | Precalculus                                                          |              |
| M 162                                | Applied Calculus                                                     |              |
| or another General Education Course  |                                                                      |              |
| <b>Total Hours</b>                   |                                                                      | <b>14-15</b> |

## Spring

| Code                                 | Title                                                                            | Hours      |
|--------------------------------------|----------------------------------------------------------------------------------|------------|
| CHMY 143N<br>& CHMY 144N             | College Chemistry II<br>and College Chemistry II Lab                             | 5          |
| BIOB 170N<br>& BIOB 171N             | Principles of Biological Diversity<br>and Principles of Biological Diversity Lab | 5          |
| <b>One of the following courses:</b> |                                                                                  | <b>3-4</b> |
| WRIT 101                             | College Writing I                                                                |            |
| M 121                                | College Algebra                                                                  |            |
| M 151                                | Precalculus                                                                      |            |



|                            |                  |
|----------------------------|------------------|
| M 162                      | Applied Calculus |
| A General Education Course | 3                |
| <b>Total Hours</b>         | <b>16-17</b>     |

Pre-Medical Sciences is not a major at the University of Montana. The Pre-Medical coursework will help students to gain admission to a professional school or program while completing a degree in a field of study. Students may select any major as a field of study, but specific pre-professional courses must be completed. When selecting a major, remember that a science major is not required for admissions into professional schools. It is more important to perform well in your chosen major. Professional schools are most concerned with the overall quality, scope, and difficulty of undergraduate work rather than the major.

Pre-professional courses are designed to provide a strong foundation in the sciences, highly developed communication skills, and a solid background in the social sciences and humanities. Curriculum guides outlining minimal course requirements established by professional schools are available from the Pre-medical Sciences office and from the Pre-Medical Sciences website (<http://umt.edu/premed> (<http://health.umt.edu/premed/>)). Because many majors within the sciences, social sciences, and humanities can provide strong preparation for medical school, the Pre-Medical Sciences Advising Program gives students the opportunity to interact with advisors from diverse disciplines in addition to their advisor for their major.

The minimal requirements for professional school should be completed prior to graduation and prior to taking the admission test required by professional schools. Since specific subject requirements vary among institutions, students should discuss their academic plans with their Pre-Medical Sciences advisor.

Admission to a professional school is very competitive. Students must maintain a high grade-point average in college if they expect to be admitted, even though many schools are changing to a more holistic approach to admissions. All required courses must be taken for letter grades. In addition, the applicant must score well on the appropriate professional admissions test. These tests are designed to measure basic academic ability in the natural sciences, reading ability, and problem solving skills.

Besides academic accomplishments and admission exam scores, acceptance by a professional school is also dependent upon letters of recommendation, volunteer experience, job shadowing, undergraduate research, and personal interviews conducted by the professional school. It is important that students consult with a Pre-Medical Sciences advisor and with an academic advisor in their major each year to make sure that they can satisfy the necessary requirements for graduation within the time available. The Pre-Medical Sciences Director will also discuss procedures, advise, and assist the student during the process of applying to a professional school.

## High School Preparation

High school students contemplating a career in the health professions should have three to four years of mathematics, courses in chemistry and physics and a solid background in literature and social science.

## College of Humanities and Sciences

The College of Humanities and Sciences

([https://www.umt.edu/humanities-sciences/?](https://www.umt.edu/humanities-sciences/?_gl=1*1p8oh7k*_gcl_au*NjA2NDU1OTU2LjE3NDgzNzUyNTA)

[\\_gl=1\\*1p8oh7k\\*\\_gcl\\_au\\*NjA2NDU1OTU2LjE3NDgzNzUyNTA](https://www.umt.edu/humanities-sciences/?_gl=1*1p8oh7k*_gcl_au*NjA2NDU1OTU2LjE3NDgzNzUyNTA).) is the

intellectual core of the University of Montana. We fulfill the central purpose for which the University was chartered in 1893: to provide a liberal education and integrated knowledge of the humanities and the sciences.

A liberal arts education gives students the means to think broadly and test the value of diverse ideas, beliefs, and facts. It empowers them to continue the learning process throughout life. By studying the ways of thinking and expression that are characteristic of the humanities and the social sciences, students will be educated citizens. They will be enabled to think critically about social analysis, creativity in the arts and humanities, aesthetics, and values. Equally important is effective expression of one's understandings. Clear thinking, cogent expression, and solid values provide the foundation of successful careers.

A particular strength of the College is the breadth of its disciplines and programs. This breadth makes possible a varied and flexible curriculum that advances both general programs and specialized education on the undergraduate and graduate levels. Another strength is the quality of the faculty. Its members have a distinguished record of teaching, research and creation of new knowledge, and service to our communities. Their commitment to undergraduate liberal arts education is demonstrated by the quality of the graduates the College has produced. The pre-professional education received here has enabled University of Montana graduates to compete successfully for admission to graduate schools across the nation. A third strength of the College is its commitment to students as they pursue their academic studies at the University. This is reflected in close student/faculty relationships and in the continuous attention given by the College to the effect that policies, procedures, and administrative practices have on students' educational experience.

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## African-American Studies

African-American Studies at the University of Montana connects African and African-American (including Latin America and the Caribbean) history, experiences, and perspectives with the 21st century. The goal of the African-American Studies curriculum is to develop basic knowledge of, and appreciation for, the diverse experiences of the African Diaspora, and their contributions to the nations into which they were incorporated. Through this study students will recognize that the African-American narrative connects to the core issues of nation formation, identity politics, social movements, and the liberal state. Those who take this minor will likewise be equipped to talk alongside, through, and in the midst of the racial fracture lines that mark this nation as a country where the color of one's skin is socially significant. In all these efforts, we promote scholarship that is driven first and foremost by an interest in creating knowledge and furthering our understanding of the African-American experience. The interdisciplinary curriculum of African-American Studies includes course offerings from the following academic disciplines: anthropology, economics, English, geography, history, music, political science, and sociology. Some topics of study include:

- African heritage and cultural continuity among African-Americans;
- African-American identity issues and cultural variation;
- the history of African-American protest and resistance, including the abolitionist, anti-lynching, and civil rights movements;
- the Harlem Renaissance;
- the social dynamics of integration and segregation; and
- the various circumstances of, and prospects for, African Americans in the 21st century.

Students graduate from this program prepared for exciting careers in social justice advocacy, law, social services, entertainment, business, athletics, and any position that requires sharp analytical skills and the ability to speak with sophistication and nuance about this country's racial divisions.

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## African-American Studies B.A.

### General Degree Requirements

To earn a baccalaureate degree, all students must complete successfully, in addition to any other requirements, the University of Montana General Education Requirements. Please refer to the General Education Requirements page (p. 39) for more information.

Additional requirements for graduation can be found on the Degree/Certificate Requirements for Graduation page (p. 36).

Unless otherwise noted in individual program requirements, a minimum grade point average of 2.00 in all work attempted at the University of Montana-Missoula is required for graduation. Please see the Academic Policies and Procedures page (p. 25) for information on how your GPA is calculated.

Courses taken to satisfy the requirements of a major, minor, or certificate program must be completed with a grade of C- or better unless a higher grade is noted in the program requirements.

## Bachelor of Arts - African-American Studies

- At least 9 credits of the 15 credits of elective courses must be upper-division (300- or 400-level).
- Each student must complete a 3-credit capstone project as an independent study in which they conduct a research project, service project, activist/organizing project, or artistic project focused on an issue pertinent to the African-American community. All projects must be approved by the African-American Studies Director.

### Course Requirements

| Code                                                                                          | Title                                                                                | Hours |
|-----------------------------------------------------------------------------------------------|--------------------------------------------------------------------------------------|-------|
| <b>Core Courses</b>                                                                           |                                                                                      |       |
| Complete all of the following courses:                                                        |                                                                                      |       |
| AAST 141H                                                                                     | Black: From Africa to Hip-Hop                                                        | 3     |
| ANTY 122S                                                                                     | Race and Minorities                                                                  | 3     |
| HSTA 342H                                                                                     | African American History to 1865                                                     | 3     |
|                                                                                               | or HSTA 343H African American History Since 1865                                     |       |
| SOCI 220S                                                                                     | Race, Gender & Class                                                                 | 3     |
| SOCI 325                                                                                      | Social Stratification                                                                | 3     |
| <b>Electives</b>                                                                              |                                                                                      |       |
| Complete 15 credits (including at least 9 upper-division credits) from the following courses: |                                                                                      | 15    |
| AAST 208H                                                                                     | Africa: From Ancient Egypt to Apartheids Origin                                      |       |
| AAST 225                                                                                      | Race, Inequality & Education                                                         |       |
| AAST 250                                                                                      | Human Rights and Mass Incarceration                                                  |       |
| AAST 360                                                                                      | White Supremacy - History/Defeat                                                     |       |
| AAST 372                                                                                      | African-American Identity                                                            |       |
| AAST 375                                                                                      | Black Women: Race, Gender and Sexuality                                              |       |
| ANTY 330X                                                                                     | Peoples and Cultures of World                                                        |       |
| CRWR 491                                                                                      | Special Topics                                                                       |       |
| ECNS 312                                                                                      | Labor Economics                                                                      |       |
| FILM 484                                                                                      | Film Directors                                                                       |       |
| FRCH 339                                                                                      | Survey of African Cinema                                                             |       |
| GPYH 141S                                                                                     | Geography of World Regions                                                           |       |
| HSTA 342H                                                                                     | African American History to 1865 (only if not used to complete the core requirement) |       |

|                                |                                                                                            |
|--------------------------------|--------------------------------------------------------------------------------------------|
| HSTA 343H                      | African American History Since 1865<br>(only if not used to complete the core requirement) |
| HSTA 347                       | Voodoo, Muslim, Church: Black Religion                                                     |
| HSTA 361                       | The American South                                                                         |
| HSTA 370H                      | Women in America: Colonial Period to Civil War                                             |
| HSTA 371H                      | Women in America: From the Civil War to the Present                                        |
| HSTA 382                       | History of American Law                                                                    |
| HSTA 385                       | Families & Children in America                                                             |
| HSTA 391                       | Special Topics                                                                             |
| HSTA 415                       | The Black Radical Tradition                                                                |
| HSTA 417                       | Prayer & Civil Rights                                                                      |
| HSTA 491                       | Special topics                                                                             |
| HSTR 262H                      | Islamic Civilization: Classical Age                                                        |
| LIT 191                        | Special Topics                                                                             |
| LIT 291                        | Special Topics                                                                             |
| LIT 304                        | U.S. Writers of Color                                                                      |
| LIT 343                        | African American Literature                                                                |
| LIT 391                        | Special Topics                                                                             |
| LIT 491                        | Special Topics                                                                             |
| MUSI 130L                      | History of Jazz                                                                            |
| PSCI 326                       | Politics of Africa                                                                         |
| PSCI 348                       | US Multicultural Politics                                                                  |
| PSCI 443                       | Politics of Social Movements                                                               |
| SOCI 443                       | Sociology of Poverty                                                                       |
| SOCI 475                       | Work, Labor, and the Criminal Justice System                                               |
| WGSS 363                       | Feminist and Queer Theories and Methods                                                    |
| <b>Capstone</b>                |                                                                                            |
| Complete the following course: |                                                                                            |
| AAST 499                       | Capstone/Thesis 3                                                                          |
| <b>Total Hours</b>             | <b>33</b>                                                                                  |

## African-American Studies Minor

### General Degree Requirements

To earn a baccalaureate degree, all students must complete successfully, in addition to any other requirements, the University of Montana General Education Requirements. Please refer to the General Education Requirements page (p. 39) for more information.

Additional requirements for graduation can be found on the Degree/Certificate Requirements for Graduation page (p. 36).

Unless otherwise noted in individual program requirements, a minimum grade point average of 2.00 in all work attempted at the University of Montana-Missoula is required for graduation. Please see the Academic Policies and Procedures page (p. 25) for information on how your GPA is calculated.

Courses taken to satisfy the requirements of a major, minor, or certificate program must be completed with a grade of C- or better unless a higher grade is noted in the program requirements.

## Minor - African-American Studies

### Course Requirements

| Code                                                                                                                                            | Title                                                                                   | Hours |
|-------------------------------------------------------------------------------------------------------------------------------------------------|-----------------------------------------------------------------------------------------|-------|
| <b>Core Courses</b>                                                                                                                             |                                                                                         |       |
| Complete all of the following courses:                                                                                                          |                                                                                         |       |
| AAST 141H                                                                                                                                       | Black: From Africa to Hip-Hop                                                           | 3     |
| HSTA 342H                                                                                                                                       | African American History to 1865                                                        | 3     |
| or HSTA 343H                                                                                                                                    | African American History Since 1865                                                     |       |
| <b>African-American Studies Electives</b>                                                                                                       |                                                                                         |       |
| Complete 6 credits from the following courses, of which at least 3 credits must be upper-division:                                              |                                                                                         | 6     |
| AAST 208H                                                                                                                                       | Africa: From Ancient Egypt to Apartheids Origin                                         |       |
| AAST 225                                                                                                                                        | Race, Inequality & Education                                                            |       |
| AAST 250                                                                                                                                        | Human Rights and Mass Incarceration                                                     |       |
| AAST 291                                                                                                                                        | Special Topics                                                                          |       |
| AAST 360                                                                                                                                        | White Supremacy - History/Defeat                                                        |       |
| AAST 372                                                                                                                                        | African-American Identity                                                               |       |
| AAST 375                                                                                                                                        | Black Women: Race, Gender and Sexuality                                                 |       |
| AAST 391                                                                                                                                        | Special Topics                                                                          |       |
| AAST 491                                                                                                                                        | Special Topics                                                                          |       |
| HSTA 342H                                                                                                                                       | African American History to 1865 (only if not used to complete the core requirement)    |       |
| HSTA 343H                                                                                                                                       | African American History Since 1865 (only if not used to complete the core requirement) |       |
| HSTA 347                                                                                                                                        | Voodoo, Muslim, Church: Black Religion                                                  |       |
| HSTA 415                                                                                                                                        | The Black Radical Tradition                                                             |       |
| HSTA 417                                                                                                                                        | Prayer & Civil Rights                                                                   |       |
| <b>Other Electives</b>                                                                                                                          |                                                                                         |       |
| Complete 9 credits of the following courses of which at least 3 credits must be upper division At least two must be from different disciplines: |                                                                                         | 9     |
| ANTY 122S                                                                                                                                       | Race and Minorities                                                                     |       |
| ANTY 330X                                                                                                                                       | Peoples and Cultures of World                                                           |       |
| ECNS 217                                                                                                                                        | Issues in Economic Development                                                          |       |
| FRCH 391                                                                                                                                        | Special Topics (must be African-American Literature)                                    |       |
| HSTA 361                                                                                                                                        | The American South                                                                      |       |
| HSTA 370H                                                                                                                                       | Women in America: Colonial Period to Civil War                                          |       |
| HSTA 371H                                                                                                                                       | Women in America: From the Civil War to the Present                                     |       |
| HSTR 262H                                                                                                                                       | Islamic Civilization: Classical Age                                                     |       |
| LIT 343                                                                                                                                         | African American Literature                                                             |       |
| MUSI 130L                                                                                                                                       | History of Jazz                                                                         |       |
| PSCI 326                                                                                                                                        | Politics of Africa                                                                      |       |
| SOCI 220S                                                                                                                                       | Race, Gender & Class                                                                    |       |
| SOCI 325                                                                                                                                        | Social Stratification                                                                   |       |
| SOCI 443                                                                                                                                        | Sociology of Poverty                                                                    |       |

|                    |                                              |           |
|--------------------|----------------------------------------------|-----------|
| SOCI 475           | Work, Labor, and the Criminal Justice System |           |
| <b>Total Hours</b> |                                              | <b>21</b> |

## African-American Studies Certificate

### General Certificate Requirements

Additional requirements for graduation can be found on the Degree/Certificate Requirements for Graduation page (p. 36).

Unless otherwise noted in individual program requirements, a minimum grade point average of 2.00 in all work attempted at the University of Montana-Missoula is required for graduation. Please see the Academic Policies and Procedures page (p. 25) for information on how your GPA is calculated.

Courses taken to satisfy the requirements of a major, minor, or certificate program must be completed with a grade of C- or better unless a higher grade is noted in the program requirements.

## Post-Secondary Certificate - African-American Studies

### Course Requirements

| Code                                         | Title                                                                             | Hours |
|----------------------------------------------|-----------------------------------------------------------------------------------|-------|
| <b>Core Courses</b>                          |                                                                                   |       |
| Complete all of the following courses:       |                                                                                   |       |
| AAST 141H                                    | Black: From Africa to Hip-Hop                                                     | 3     |
| HSTA 342H                                    | African American History to 1865                                                  | 3     |
| or HSTA 343H                                 | African American History Since 1865                                               |       |
| <b>Electives</b>                             |                                                                                   |       |
| Complete 6 credits of the following courses: |                                                                                   | 6     |
| AAST 208H                                    | Africa: From Ancient Egypt to Apartheids Origin                                   |       |
| AAST 225                                     | Race, Inequality & Education                                                      |       |
| AAST 250                                     | Human Rights and Mass Incarceration                                               |       |
| AAST 360                                     | White Supremacy - History/Defeat                                                  |       |
| AAST 372                                     | African-American Identity                                                         |       |
| AAST 375                                     | Black Women: Race, Gender and Sexuality                                           |       |
| ANTY 122S                                    | Race and Minorities                                                               |       |
| FRCH 339                                     | Survey of African Cinema                                                          |       |
| HSTA 342H                                    | African American History to 1865 (only if not completing the core requirement)    |       |
| HSTA 343H                                    | African American History Since 1865 (only if not completing the core requirement) |       |
| HSTA 344                                     | African-American Struggle for Equality                                            |       |
| HSTA 347                                     | Voodoo, Muslim, Church: Black Religion                                            |       |
| HSTA 361                                     | The American South                                                                |       |
| HSTA 370H                                    | Women in America: Colonial Period to Civil War                                    |       |
| HSTA 371H                                    | Women in America: From the Civil War to the Present                               |       |
| HSTA 385                                     | Families & Children in America                                                    |       |
| HSTA 417                                     | Prayer & Civil Rights                                                             |       |
| LIT 343                                      | African American Literature                                                       |       |

|                    |                                              |           |
|--------------------|----------------------------------------------|-----------|
| SOCI 220S          | Race, Gender & Class                         |           |
| SOCI 325           | Social Stratification                        |           |
| SOCI 443           | Sociology of Poverty                         |           |
| SOCI 475           | Work, Labor, and the Criminal Justice System |           |
| <b>Total Hours</b> |                                              | <b>12</b> |

## Anthropology

Mizuki Miyashita, Chair

Anthropology is the study of people, both ancient and contemporary, in their biological, archaeological, cultural, and linguistic context. Anthropology uses a holistic approach to integrate findings from the social sciences, natural sciences, and humanities. The primary educational mission of the Department of Anthropology is teaching, research, and professional service in order to impart the critical importance of understanding the human condition and its relevance to an increasingly diverse world. To accomplish this task, the Department of Anthropology provides a curriculum that will help students understand and appreciate the range of human cultures as well as the significance of biological evolution of the human condition. Through our undergraduate and graduate programs, students not only achieve a broad cross-cultural education but also prepare to apply their anthropological knowledge in their chosen career paths. A minor, Bachelor of Arts, Master of Arts, and Doctor of Philosophy degrees are offered in Anthropology, with concentrations or specializations available at every level. For undergraduates, the B.A. can include concentrations in Archaeology, Cultural and Ethnic Diversity, Forensic and Biological Anthropology, and Linguistics, or a general degree crafted to the interests of the student. Parallel missions to promote the study of human diversity and experience are advanced by the Linguistics Program, which is also housed in the department. Additional offerings include certificates in Forensic Science and Historic Preservation. These certificates are interdisciplinary by nature, but are administered within the Anthropology Department.

Anthropology is an interconnected discipline and majors are urged to acquire a broad background especially in the natural and social sciences and the humanities. Recommended areas of study are biology, economics, English, geography, geosciences, history, communication studies, linguistics, Native American studies, philosophy, political science, psychology, and sociology.

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- Anthropology B.A. - Cultural and Ethnic Diversity (p. 202)
- Anthropology B.A. - Forensic and Biological Anthropology (p. 204)
- Anthropology B.A. - Linguistic Anthropology (p. 205)
- Anthropology Minor (p. 206)
- English in Academic Strength and Leadership (EASL) Certificate (<https://catalog.umat.edu/colleges-schools-programs/humanities-sciences/anthropology/cert-easl/>)
- Forensic Studies Certificate (p. 207)
- Historic Preservation Certificate (p. 208)

# Anthropology B.A.

## General Degree Requirements

To earn a baccalaureate degree, all students must complete successfully, in addition to any other requirements, the University of Montana General Education Requirements. Please refer to the General Education Requirements page (p. 39) for more information.

Additional requirements for graduation can be found on the Degree/Certificate Requirements for Graduation page (p. 36).

Unless otherwise noted in individual program requirements, a minimum grade point average of 2.00 in all work attempted at the University of Montana-Missoula is required for graduation. Please see the Academic Policies and Procedures page (p. 25) for information on how your GPA is calculated.

Courses taken to satisfy the requirements of a major, minor, or certificate program must be completed with a grade of C- or better unless a higher grade is noted in the program requirements.

## Online Program Option

This program may be completed in an online format (<https://catalog.umont.edu/online-programs/definitions/>). Students interested in pursuing an online degree or certificate program are strongly encouraged to contact the offering department to discuss specific program and course modalities (<https://catalog.umont.edu/online-programs/definitions/>) and create a plan of study with an academic advisor. The course requirements listed below may not be consistently offered via online delivery.

## Bachelor of Arts - Anthropology Course Requirements

| Code                                         | Title                                                          | Hours |
|----------------------------------------------|----------------------------------------------------------------|-------|
| <b>Lower-Division Core Courses</b>           |                                                                |       |
| Complete all of the following courses:       |                                                                |       |
| ANTY 201                                     | Anthropology for Majors: Understanding the Four-Field Approach | 3     |
|                                              | or ANTY 220S Culture & Society                                 |       |
| ANTY 210N                                    | Introduction to Biological Anthropology                        | 3     |
| ANTY 250S                                    | Intro to Archaeology                                           | 3     |
| LING 270S                                    | Intro to Linguistics                                           | 3     |
| <b>Statistics</b>                            |                                                                |       |
| Complete one of the following courses:       |                                                                |       |
| ANTY 208                                     | Anthropological Statistics                                     |       |
| ANTY 401                                     | Anthropological Data Analysis                                  |       |
| ECNS 403                                     | Introduction to Econometrics                                   |       |
| PSYX 222                                     | Psychological Statistics                                       |       |
| SOCI 202                                     | Social Statistics                                              |       |
| STAT 216                                     | Introduction to Statistics                                     |       |
| FORS 201                                     | Forest Biometrics                                              |       |
| <b>Subarea I - Anthropological Theory</b>    |                                                                |       |
| Complete 3 credits of the following courses: |                                                                |       |
| ANTY 312                                     | Human Evolution                                                | 3     |
| ANTY 400                                     | History of Anthropology                                        |       |
| ANTY 403                                     | Public Anthropology                                            |       |

|                                                                                 |                                                                                           |   |
|---------------------------------------------------------------------------------|-------------------------------------------------------------------------------------------|---|
| ANTY 404                                                                        | Anthropological Museology                                                                 |   |
| ANTY 415                                                                        | Emergence of Modern Humans                                                                |   |
| ANTY 430                                                                        | Social Anthropology                                                                       |   |
| ANTY 450                                                                        | Archaeological Theory                                                                     |   |
| ANTY 456                                                                        | Historical Archaeology                                                                    |   |
| ANTY 458                                                                        | Archaeology of Hunter-Gatherers                                                           |   |
| LING 470                                                                        | Linguistic Analysis                                                                       |   |
| <b>Subarea I - Anthropological Methods</b>                                      |                                                                                           |   |
| Complete 3 credits of the following courses:                                    |                                                                                           |   |
| ANTY 412                                                                        | Osteology                                                                                 | 3 |
| ANTY 413                                                                        | Forensic and Mortuary Archaeology                                                         |   |
| ANTY 418                                                                        | Evolution and Genetic Variation in Human Populations                                      |   |
| ANTY 431                                                                        | Ethnographic Field Methods                                                                |   |
| ANTY 451                                                                        | Cultural Resource Management                                                              |   |
| ANTY 454                                                                        | Lithic Technology                                                                         |   |
| ANTY 455                                                                        | Artifact Analysis                                                                         |   |
| ANTY 466                                                                        | Archaeological Survey                                                                     |   |
| ANTY 467                                                                        | Archaeological Field School                                                               |   |
| ANTY 476                                                                        | Methods for Native Languages                                                              |   |
| ANTY 495                                                                        | Field Experience/Practicum                                                                |   |
| LING 461                                                                        | Speech Data Annotation for Linguistics Research                                           |   |
| LING 474                                                                        | Historical Linguistics                                                                    |   |
| LING 475                                                                        | Linguistic Field Methods                                                                  |   |
| <b>Subareas II, III, and IV</b>                                                 |                                                                                           |   |
| Complete 3 credits from 2 of the 3 following subareas for a total of 6 credits. |                                                                                           |   |
| <b>Subarea II: Human Adaptation and Diversity</b>                               |                                                                                           |   |
| ANTY 104                                                                        | Ancient Migrations                                                                        |   |
| ANTY 122S                                                                       | Race and Minorities                                                                       |   |
| ANTY 133X                                                                       | Food and Culture                                                                          |   |
| ANTY 310                                                                        | Human Variation                                                                           |   |
| ANTY 418                                                                        | Evolution and Genetic Variation in Human Populations                                      |   |
| LING 375X                                                                       | Linguistic Ecology and Language Endangerment                                              |   |
| <b>Subarea III: World Societies and Cultures</b>                                |                                                                                           |   |
| ANTY 102H                                                                       | Intro to South & S. East Asia                                                             |   |
| ANTY 141H                                                                       | The Silk Road                                                                             |   |
| ANTY 150X                                                                       | Archaeology of Yellowstone: 11,000 Years of Native Americans in Yellowstone National Park |   |
| ANTY 241H                                                                       | Central Asian Culture and Civilization                                                    |   |
| ANTY 251                                                                        | Foundations of Civilization                                                               |   |
| ANTY 254X                                                                       | Archaeological Wonders of the World                                                       |   |
| ANTY 323X                                                                       | Native Peoples of Montana                                                                 |   |
| ANTY 330X                                                                       | Peoples and Cultures of World                                                             |   |
| ANTY 351H                                                                       | Archaeology of North America                                                              |   |
| ANTY 352X                                                                       | Archaeology of Montana                                                                    |   |
| ANTY 353                                                                        | PaleoIndian Archaeology                                                                   |   |
| ANTY 354H                                                                       | Mesoamerican Prehistory                                                                   |   |
| ANTY 442                                                                        | Cities and Landscapes of Central Asia                                                     |   |



|                                                                                                            |                                                                |           |
|------------------------------------------------------------------------------------------------------------|----------------------------------------------------------------|-----------|
| ANTY 444                                                                                                   | Artistic Traditions of Central Asia                            |           |
| ANTY 459                                                                                                   | Archaeology of the Arctic and Subarctic                        |           |
| ANTY 465                                                                                                   | Archaeology of the Southwest United States                     |           |
| ANTY 494                                                                                                   | Seminar/Workshop                                               |           |
| Subarea IV: Concepts and Issues                                                                            |                                                                |           |
| ANTY 126                                                                                                   | Anthropology and Global Health                                 |           |
| ANTY 201                                                                                                   | Anthropology for Majors: Understanding the Four-Field Approach |           |
| ANTY 220S                                                                                                  | Culture & Society                                              |           |
| ANTY 314                                                                                                   | Principles of Forensic Anthropology                            |           |
| ANTY 326E                                                                                                  | Indigenous Peoples & the Ethics of Development                 |           |
| ANTY 336                                                                                                   | Myth, Ritual and Religion                                      |           |
| ANTY 422                                                                                                   | Mind, Culture, and Society                                     |           |
| ANTY 423                                                                                                   | Culture and Identity                                           |           |
| ANTY 427                                                                                                   | Anthropology of Gender                                         |           |
| LING 473                                                                                                   | Language and Culture                                           |           |
| LING 477                                                                                                   | Bilingualism                                                   |           |
| LING 484                                                                                                   | North American Indigenous Language & Linguistics               |           |
| LING 489                                                                                                   | Morphology                                                     |           |
| <b>Anthropology or Linguistics Electives</b>                                                               |                                                                |           |
| Complete 12 credits in Anthropology and Linguistics electives not completing core or subarea requirements. |                                                                | 12        |
| <b>Total Hours</b>                                                                                         |                                                                | <b>39</b> |

## Anthropology B.A. - Archaeology

### General Degree Requirements

To earn a baccalaureate degree, all students must complete successfully, in addition to any other requirements, the University of Montana General Education Requirements. Please refer to the General Education Requirements page (p. 39) for more information.

Additional requirements for graduation can be found on the Degree/Certificate Requirements for Graduation page (p. 36).

Unless otherwise noted in individual program requirements, a minimum grade point average of 2.00 in all work attempted at the University of Montana-Missoula is required for graduation. Please see the Academic Policies and Procedures page (p. 25) for information on how your GPA is calculated.

Courses taken to satisfy the requirements of a major, minor, or certificate program must be completed with a grade of C- or better unless a higher grade is noted in the program requirements.

## Bachelor of Arts - Anthropology; Archaeology Concentration

### Course Requirements

| Code                                   | Title | Hours |
|----------------------------------------|-------|-------|
| <b>Lower-Division Core Courses</b>     |       |       |
| Complete all of the following courses: |       |       |

|                                                                                 |                                                                |   |
|---------------------------------------------------------------------------------|----------------------------------------------------------------|---|
| ANTY 201                                                                        | Anthropology for Majors: Understanding the Four-Field Approach | 3 |
| or ANTY 220S                                                                    | Culture & Society                                              |   |
| ANTY 210N                                                                       | Introduction to Biological Anthropology                        | 3 |
| ANTY 250S                                                                       | Intro to Archaeology                                           | 3 |
| LING 270S                                                                       | Intro to Linguistics                                           | 3 |
| <b>Statistics</b>                                                               |                                                                |   |
| Complete one of the following courses:                                          |                                                                | 3 |
| ANTY 208                                                                        | Anthropological Statistics                                     |   |
| ANTY 401                                                                        | Anthropological Data Analysis                                  |   |
| ECNS 403                                                                        | Introduction to Econometrics                                   |   |
| PSYX 222                                                                        | Psychological Statistics                                       |   |
| SOCI 202                                                                        | Social Statistics                                              |   |
| STAT 216                                                                        | Introduction to Statistics                                     |   |
| FORS 201                                                                        | Forest Biometrics                                              |   |
| <b>Subarea I - Anthropological Theory</b>                                       |                                                                |   |
| Complete 3 credits of the following courses:                                    |                                                                | 3 |
| ANTY 312                                                                        | Human Evolution                                                |   |
| ANTY 400                                                                        | History of Anthropology                                        |   |
| ANTY 403                                                                        | Public Anthropology                                            |   |
| ANTY 404                                                                        | Anthropological Museology                                      |   |
| ANTY 415                                                                        | Emergence of Modern Humans                                     |   |
| ANTY 430                                                                        | Social Anthropology                                            |   |
| ANTY 450                                                                        | Archaeological Theory                                          |   |
| ANTY 456                                                                        | Historical Archaeology                                         |   |
| ANTY 458                                                                        | Archaeology of Hunter-Gatherers                                |   |
| LING 470                                                                        | Linguistic Analysis                                            |   |
| <b>Subarea I - Anthropological Methods</b>                                      |                                                                |   |
| Complete 3 credits of the following courses:                                    |                                                                | 3 |
| ANTY 412                                                                        | Osteology                                                      |   |
| ANTY 413                                                                        | Forensic and Mortuary Archaeology                              |   |
| ANTY 418                                                                        | Evolution and Genetic Variation in Human Populations           |   |
| ANTY 431                                                                        | Ethnographic Field Methods                                     |   |
| ANTY 451                                                                        | Cultural Resource Management                                   |   |
| ANTY 454                                                                        | Lithic Technology                                              |   |
| ANTY 455                                                                        | Artifact Analysis                                              |   |
| ANTY 466                                                                        | Archaeological Survey                                          |   |
| ANTY 467                                                                        | Archaeological Field School                                    |   |
| ANTY 476                                                                        | Methods for Native Languages                                   |   |
| ANTY 495                                                                        | Field Experience/Practicum                                     |   |
| LING 461                                                                        | Speech Data Annotation for Linguistics Research                |   |
| LING 474                                                                        | Historical Linguistics                                         |   |
| LING 475                                                                        | Linguistic Field Methods                                       |   |
| <b>Subareas II, III, and IV</b>                                                 |                                                                |   |
| Complete 3 credits from 2 of the 3 following subareas for a total of 6 credits. |                                                                | 6 |
| <b>Subarea II: Human Adaptation and Diversity</b>                               |                                                                |   |
| ANTY 104                                                                        | Ancient Migrations                                             |   |
| ANTY 122S                                                                       | Race and Minorities                                            |   |
| ANTY 133X                                                                       | Food and Culture                                               |   |
| ANTY 310                                                                        | Human Variation                                                |   |

|                                           |                                                                                           |
|-------------------------------------------|-------------------------------------------------------------------------------------------|
| ANTY 418                                  | Evolution and Genetic Variation in Human Populations                                      |
| LING 375X                                 | Linguistic Ecology and Language Endangerment                                              |
| Subarea III: World Societies and Cultures |                                                                                           |
| ANTY 102H                                 | Intro to South & S. East Asia                                                             |
| ANTY 141H                                 | The Silk Road                                                                             |
| ANTY 150X                                 | Archaeology of Yellowstone: 11,000 Years of Native Americans in Yellowstone National Park |
| ANTY 241H                                 | Central Asian Culture and Civilization                                                    |
| ANTY 251                                  | Foundations of Civilization                                                               |
| ANTY 254X                                 | Archaeological Wonders of the World                                                       |
| ANTY 323X                                 | Native Peoples of Montana                                                                 |
| ANTY 330X                                 | Peoples and Cultures of World                                                             |
| ANTY 351H                                 | Archaeology of North America                                                              |
| ANTY 352X                                 | Archaeology of Montana                                                                    |
| ANTY 353                                  | PaleoIndian Archaeology                                                                   |
| ANTY 354H                                 | Mesoamerican Prehistory                                                                   |
| ANTY 442                                  | Cities and Landscapes of Central Asia                                                     |
| ANTY 444                                  | Artistic Traditions of Central Asia                                                       |
| ANTY 459                                  | Archaeology of the Arctic and Subarctic                                                   |
| ANTY 465                                  | Archaeology of the Southwest United States                                                |
| ANTY 494                                  | Seminar/Workshop                                                                          |
| Subarea IV: Concepts and Issues           |                                                                                           |
| ANTY 126                                  | Anthropology and Global Health                                                            |
| ANTY 201                                  | Anthropology for Majors: Understanding the Four-Field Approach                            |
| ANTY 220S                                 | Culture & Society                                                                         |
| ANTY 314                                  | Principles of Forensic Anthropology                                                       |
| ANTY 326E                                 | Indigenous Peoples & the Ethics of Development                                            |
| ANTY 336                                  | Myth, Ritual and Religion                                                                 |
| ANTY 422                                  | Mind, Culture, and Society                                                                |
| ANTY 423                                  | Culture and Identity                                                                      |
| ANTY 427                                  | Anthropology of Gender                                                                    |
| LING 473                                  | Language and Culture                                                                      |
| LING 477                                  | Bilingualism                                                                              |
| LING 484                                  | North American Indigenous Language & Linguistics                                          |
| LING 489                                  | Morphology                                                                                |

**Anthropology or Linguistics Electives**

Complete 12 credits in Anthropology and Linguistics electives not completing core or subarea requirements. 12

**Archaeology Core Courses - Area**

Complete one of the following courses: 3

|           |                                         |
|-----------|-----------------------------------------|
| ANTY 351H | Archaeology of North America            |
| ANTY 352X | Archaeology of Montana                  |
| ANTY 353  | PaleoIndian Archaeology                 |
| ANTY 354H | Mesoamerican Prehistory                 |
| ANTY 451  | Cultural Resource Management            |
| ANTY 459  | Archaeology of the Arctic and Subarctic |

|          |                                            |
|----------|--------------------------------------------|
| ANTY 465 | Archaeology of the Southwest United States |
|----------|--------------------------------------------|

**Archaeology Core Courses - Theory**

Complete one of the following courses: 3

|          |                                 |
|----------|---------------------------------|
| ANTY 450 | Archaeological Theory           |
| ANTY 456 | Historical Archaeology          |
| ANTY 458 | Archaeology of Hunter-Gatherers |

**Archaeology Core Courses - Methods**

Complete 3 credits from the following courses: 3

|          |                             |
|----------|-----------------------------|
| ANTY 454 | Lithic Technology           |
| ANTY 455 | Artifact Analysis           |
| ANTY 466 | Archaeological Survey       |
| ANTY 467 | Archaeological Field School |

**Archaeology Allied Science Electives**

Complete 6 credits in Biology, Geography, or Geology. All 6 credits must be in the same discipline. 6

Complete 6 credits in Computer Science, Environmental Studies, Forestry, History, Native American Studies, or Mathematical Sciences. All 6 credits must come from the same discipline. 6

**Total Hours** 60

## Anthropology B.A. - Cultural and Ethnic Diversity

### General Degree Requirements

To earn a baccalaureate degree, all students must complete successfully, in addition to any other requirements, the University of Montana General Education Requirements. Please refer to the General Education Requirements page (p. 39) for more information.

Additional requirements for graduation can be found on the Degree/Certificate Requirements for Graduation page (p. 36).

Unless otherwise noted in individual program requirements, a minimum grade point average of 2.00 in all work attempted at the University of Montana-Missoula is required for graduation. Please see the Academic Policies and Procedures page (p. 25) for information on how your GPA is calculated.

Courses taken to satisfy the requirements of a major, minor, or certificate program must be completed with a grade of C- or better unless a higher grade is noted in the program requirements.

## Bachelor of Arts - Anthropology; Cultural and Ethnic Diversity Concentration

### Course Requirements

| Code                                   | Title                                                          | Hours |
|----------------------------------------|----------------------------------------------------------------|-------|
| <b>Lower-Division Core Courses</b>     |                                                                |       |
| Complete all of the following courses: |                                                                |       |
| ANTY 201                               | Anthropology for Majors: Understanding the Four-Field Approach | 3     |
| or ANT 220S                            | Culture & Society                                              |       |
| ANTY 210N                              | Introduction to Biological Anthropology                        | 3     |
| ANTY 250S                              | Intro to Archaeology                                           | 3     |

|           |                      |   |
|-----------|----------------------|---|
| LING 270S | Intro to Linguistics | 3 |
|-----------|----------------------|---|

**Statistics**

|                                        |  |   |
|----------------------------------------|--|---|
| Complete one of the following courses: |  | 3 |
|----------------------------------------|--|---|

|          |                            |  |
|----------|----------------------------|--|
| ANTY 208 | Anthropological Statistics |  |
|----------|----------------------------|--|

|          |                               |  |
|----------|-------------------------------|--|
| ANTY 401 | Anthropological Data Analysis |  |
|----------|-------------------------------|--|

|          |                              |  |
|----------|------------------------------|--|
| ECNS 403 | Introduction to Econometrics |  |
|----------|------------------------------|--|

|          |                          |  |
|----------|--------------------------|--|
| PSYX 222 | Psychological Statistics |  |
|----------|--------------------------|--|

|          |                   |  |
|----------|-------------------|--|
| SOCI 202 | Social Statistics |  |
|----------|-------------------|--|

|          |                            |  |
|----------|----------------------------|--|
| STAT 216 | Introduction to Statistics |  |
|----------|----------------------------|--|

|          |                   |  |
|----------|-------------------|--|
| FORS 201 | Forest Biometrics |  |
|----------|-------------------|--|

**Subarea I - Anthropological Theory**

|                                              |  |   |
|----------------------------------------------|--|---|
| Complete 3 credits of the following courses: |  | 3 |
|----------------------------------------------|--|---|

|          |                 |  |
|----------|-----------------|--|
| ANTY 312 | Human Evolution |  |
|----------|-----------------|--|

|          |                         |  |
|----------|-------------------------|--|
| ANTY 400 | History of Anthropology |  |
|----------|-------------------------|--|

|          |                     |  |
|----------|---------------------|--|
| ANTY 403 | Public Anthropology |  |
|----------|---------------------|--|

|          |                           |  |
|----------|---------------------------|--|
| ANTY 404 | Anthropological Museology |  |
|----------|---------------------------|--|

|          |                            |  |
|----------|----------------------------|--|
| ANTY 415 | Emergence of Modern Humans |  |
|----------|----------------------------|--|

|          |                     |  |
|----------|---------------------|--|
| ANTY 430 | Social Anthropology |  |
|----------|---------------------|--|

|          |                       |  |
|----------|-----------------------|--|
| ANTY 450 | Archaeological Theory |  |
|----------|-----------------------|--|

|          |                        |  |
|----------|------------------------|--|
| ANTY 456 | Historical Archaeology |  |
|----------|------------------------|--|

|          |                                 |  |
|----------|---------------------------------|--|
| ANTY 458 | Archaeology of Hunter-Gatherers |  |
|----------|---------------------------------|--|

|          |                     |  |
|----------|---------------------|--|
| LING 470 | Linguistic Analysis |  |
|----------|---------------------|--|

**Subarea I - Anthropological Methods**

|                                              |  |   |
|----------------------------------------------|--|---|
| Complete 3 credits of the following courses: |  | 3 |
|----------------------------------------------|--|---|

|          |           |  |
|----------|-----------|--|
| ANTY 412 | Osteology |  |
|----------|-----------|--|

|          |                                   |  |
|----------|-----------------------------------|--|
| ANTY 413 | Forensic and Mortuary Archaeology |  |
|----------|-----------------------------------|--|

|          |                                                      |  |
|----------|------------------------------------------------------|--|
| ANTY 418 | Evolution and Genetic Variation in Human Populations |  |
|----------|------------------------------------------------------|--|

|          |                            |  |
|----------|----------------------------|--|
| ANTY 431 | Ethnographic Field Methods |  |
|----------|----------------------------|--|

|          |                              |  |
|----------|------------------------------|--|
| ANTY 451 | Cultural Resource Management |  |
|----------|------------------------------|--|

|          |                   |  |
|----------|-------------------|--|
| ANTY 454 | Lithic Technology |  |
|----------|-------------------|--|

|          |                   |  |
|----------|-------------------|--|
| ANTY 455 | Artifact Analysis |  |
|----------|-------------------|--|

|          |                       |  |
|----------|-----------------------|--|
| ANTY 466 | Archaeological Survey |  |
|----------|-----------------------|--|

|          |                             |  |
|----------|-----------------------------|--|
| ANTY 467 | Archaeological Field School |  |
|----------|-----------------------------|--|

|          |                              |  |
|----------|------------------------------|--|
| ANTY 476 | Methods for Native Languages |  |
|----------|------------------------------|--|

|          |                            |  |
|----------|----------------------------|--|
| ANTY 495 | Field Experience/Practicum |  |
|----------|----------------------------|--|

|          |                                                 |  |
|----------|-------------------------------------------------|--|
| LING 461 | Speech Data Annotation for Linguistics Research |  |
|----------|-------------------------------------------------|--|

|          |                        |  |
|----------|------------------------|--|
| LING 474 | Historical Linguistics |  |
|----------|------------------------|--|

|          |                          |  |
|----------|--------------------------|--|
| LING 475 | Linguistic Field Methods |  |
|----------|--------------------------|--|

**Subareas II, III, and IV**

|                                                                                 |  |   |
|---------------------------------------------------------------------------------|--|---|
| Complete 3 credits from 2 of the 3 following subareas for a total of 6 credits. |  | 6 |
|---------------------------------------------------------------------------------|--|---|

|                                            |  |
|--------------------------------------------|--|
| Subarea II: Human Adaptation and Diversity |  |
|--------------------------------------------|--|

|          |                    |  |
|----------|--------------------|--|
| ANTY 104 | Ancient Migrations |  |
|----------|--------------------|--|

|           |                     |  |
|-----------|---------------------|--|
| ANTY 122S | Race and Minorities |  |
|-----------|---------------------|--|

|           |                  |  |
|-----------|------------------|--|
| ANTY 133X | Food and Culture |  |
|-----------|------------------|--|

|          |                 |  |
|----------|-----------------|--|
| ANTY 310 | Human Variation |  |
|----------|-----------------|--|

|          |                                                      |  |
|----------|------------------------------------------------------|--|
| ANTY 418 | Evolution and Genetic Variation in Human Populations |  |
|----------|------------------------------------------------------|--|

|           |                                              |  |
|-----------|----------------------------------------------|--|
| LING 375X | Linguistic Ecology and Language Endangerment |  |
|-----------|----------------------------------------------|--|

|                                           |  |
|-------------------------------------------|--|
| Subarea III: World Societies and Cultures |  |
|-------------------------------------------|--|

|           |                               |  |
|-----------|-------------------------------|--|
| ANTY 102H | Intro to South & S. East Asia |  |
|-----------|-------------------------------|--|

|           |               |  |
|-----------|---------------|--|
| ANTY 141H | The Silk Road |  |
|-----------|---------------|--|

|           |                                                                                           |  |
|-----------|-------------------------------------------------------------------------------------------|--|
| ANTY 150X | Archaeology of Yellowstone: 11,000 Years of Native Americans in Yellowstone National Park |  |
|-----------|-------------------------------------------------------------------------------------------|--|

|           |                                        |  |
|-----------|----------------------------------------|--|
| ANTY 241H | Central Asian Culture and Civilization |  |
|-----------|----------------------------------------|--|

|          |                             |  |
|----------|-----------------------------|--|
| ANTY 251 | Foundations of Civilization |  |
|----------|-----------------------------|--|

|           |                                     |  |
|-----------|-------------------------------------|--|
| ANTY 254X | Archaeological Wonders of the World |  |
|-----------|-------------------------------------|--|

|           |                           |  |
|-----------|---------------------------|--|
| ANTY 323X | Native Peoples of Montana |  |
|-----------|---------------------------|--|

|           |                               |  |
|-----------|-------------------------------|--|
| ANTY 330X | Peoples and Cultures of World |  |
|-----------|-------------------------------|--|

|           |                              |  |
|-----------|------------------------------|--|
| ANTY 351H | Archaeology of North America |  |
|-----------|------------------------------|--|

|           |                        |  |
|-----------|------------------------|--|
| ANTY 352X | Archaeology of Montana |  |
|-----------|------------------------|--|

|          |                         |  |
|----------|-------------------------|--|
| ANTY 353 | PaleoIndian Archaeology |  |
|----------|-------------------------|--|

|           |                         |  |
|-----------|-------------------------|--|
| ANTY 354H | Mesoamerican Prehistory |  |
|-----------|-------------------------|--|

|          |                                       |  |
|----------|---------------------------------------|--|
| ANTY 442 | Cities and Landscapes of Central Asia |  |
|----------|---------------------------------------|--|

|          |                                     |  |
|----------|-------------------------------------|--|
| ANTY 444 | Artistic Traditions of Central Asia |  |
|----------|-------------------------------------|--|

|          |                                         |  |
|----------|-----------------------------------------|--|
| ANTY 459 | Archaeology of the Arctic and Subarctic |  |
|----------|-----------------------------------------|--|

|          |                                            |  |
|----------|--------------------------------------------|--|
| ANTY 465 | Archaeology of the Southwest United States |  |
|----------|--------------------------------------------|--|

|          |                  |  |
|----------|------------------|--|
| ANTY 494 | Seminar/Workshop |  |
|----------|------------------|--|

|                                 |  |
|---------------------------------|--|
| Subarea IV: Concepts and Issues |  |
|---------------------------------|--|

|          |                                |  |
|----------|--------------------------------|--|
| ANTY 126 | Anthropology and Global Health |  |
|----------|--------------------------------|--|

|          |                                                                |  |
|----------|----------------------------------------------------------------|--|
| ANTY 201 | Anthropology for Majors: Understanding the Four-Field Approach |  |
|----------|----------------------------------------------------------------|--|

|           |                   |  |
|-----------|-------------------|--|
| ANTY 220S | Culture & Society |  |
|-----------|-------------------|--|

|          |                                     |  |
|----------|-------------------------------------|--|
| ANTY 314 | Principles of Forensic Anthropology |  |
|----------|-------------------------------------|--|

|           |                                                |  |
|-----------|------------------------------------------------|--|
| ANTY 326E | Indigenous Peoples & the Ethics of Development |  |
|-----------|------------------------------------------------|--|

|          |                           |  |
|----------|---------------------------|--|
| ANTY 336 | Myth, Ritual and Religion |  |
|----------|---------------------------|--|

|          |                            |  |
|----------|----------------------------|--|
| ANTY 422 | Mind, Culture, and Society |  |
|----------|----------------------------|--|

|          |                      |  |
|----------|----------------------|--|
| ANTY 423 | Culture and Identity |  |
|----------|----------------------|--|

|          |                        |  |
|----------|------------------------|--|
| ANTY 427 | Anthropology of Gender |  |
|----------|------------------------|--|

|          |                      |  |
|----------|----------------------|--|
| LING 473 | Language and Culture |  |
|----------|----------------------|--|

|          |              |  |
|----------|--------------|--|
| LING 477 | Bilingualism |  |
|----------|--------------|--|

|          |                                                  |  |
|----------|--------------------------------------------------|--|
| LING 484 | North American Indigenous Language & Linguistics |  |
|----------|--------------------------------------------------|--|

|          |            |  |
|----------|------------|--|
| LING 489 | Morphology |  |
|----------|------------|--|

**Anthropology or Linguistics Electives**

|                                                                                                            |    |
|------------------------------------------------------------------------------------------------------------|----|
| Complete 12 credits in Anthropology and Linguistics electives not completing core or subarea requirements. | 12 |
|------------------------------------------------------------------------------------------------------------|----|

**Cultural and Ethnic Diversity Concentration Requirements**

|                                        |  |
|----------------------------------------|--|
| Complete all of the following courses: |  |
|----------------------------------------|--|

|           |                     |   |
|-----------|---------------------|---|
| ANTY 122S | Race and Minorities | 3 |
|-----------|---------------------|---|

|          |                 |   |
|----------|-----------------|---|
| ANTY 310 | Human Variation | 3 |
|----------|-----------------|---|

|           |                               |   |
|-----------|-------------------------------|---|
| ANTY 330X | Peoples and Cultures of World | 3 |
|-----------|-------------------------------|---|

|          |                      |   |
|----------|----------------------|---|
| ANTY 423 | Culture and Identity | 3 |
|----------|----------------------|---|

**Cultural and Ethnic Diversity Concentration Electives**

|                                                                                                                                                                    |   |
|--------------------------------------------------------------------------------------------------------------------------------------------------------------------|---|
| Complete 6 credits of advisor approved electives in Anthropology, History, or Sociology. Please see your advisor about which courses may fulfill this requirement. | 6 |
|--------------------------------------------------------------------------------------------------------------------------------------------------------------------|---|

Complete 6 credits of advisor approved electives in African-American Studies, Asian Studies, Native American Studies, or Women’s Studies. Please see your advisor about which courses may fulfill this requirement.

Total Hours 63

# Anthropology B.A. - Forensic and Biological Anthropology

## General Degree Requirements

To earn a baccalaureate degree, all students must complete successfully, in addition to any other requirements, the University of Montana General Education Requirements. Please refer to the General Education Requirements page (p. 39) for more information.

Additional requirements for graduation can be found on the Degree/Certificate Requirements for Graduation page (p. 36).

Unless otherwise noted in individual program requirements, a minimum grade point average of 2.00 in all work attempted at the University of Montana-Missoula is required for graduation. Please see the Academic Policies and Procedures page (p. 25) for information on how your GPA is calculated.

Courses taken to satisfy the requirements of a major, minor, or certificate program must be completed with a grade of C- or better unless a higher grade is noted in the program requirements.

## Bachelor of Arts - Anthropology; Forensic and Biological Anthropology Concentration

### Course Requirements

| Code                                         | Title                                   | Hours |
|----------------------------------------------|-----------------------------------------|-------|
| Lower-Division Core Courses                  |                                         |       |
| Complete all of the following courses:       |                                         |       |
| ANTY 210N                                    | Introduction to Biological Anthropology | 3     |
| ANTY 220S                                    | Culture & Society                       | 3     |
| ANTY 250S                                    | Intro to Archaeology                    | 3     |
| LING 270S                                    | Intro to Linguistics                    | 3     |
| Statistics                                   |                                         |       |
| Complete one of the following courses:       |                                         |       |
| ANTY 208                                     | Anthropological Statistics              |       |
| ANTY 401                                     | Anthropological Data Analysis           |       |
| ECNS 403                                     | Introduction to Econometrics            |       |
| PSYX 222                                     | Psychological Statistics                |       |
| SOCI 202                                     | Social Statistics                       |       |
| STAT 216                                     | Introduction to Statistics              |       |
| FORS 201                                     | Forest Biometrics                       |       |
| Subarea I - Anthropological Theory           |                                         |       |
| Complete 3 credits of the following courses: |                                         |       |
| ANTY 312                                     | Human Evolution                         |       |
| ANTY 400                                     | History of Anthropology                 |       |
| ANTY 403                                     | Public Anthropology                     |       |
| ANTY 404                                     | Anthropological Museology               |       |

|                                                                                 |                                                                                           |
|---------------------------------------------------------------------------------|-------------------------------------------------------------------------------------------|
| ANTY 415                                                                        | Emergence of Modern Humans                                                                |
| ANTY 430                                                                        | Social Anthropology                                                                       |
| ANTY 450                                                                        | Archaeological Theory                                                                     |
| ANTY 456                                                                        | Historical Archaeology                                                                    |
| ANTY 458                                                                        | Archaeology of Hunter-Gatherers                                                           |
| LING 470                                                                        | Linguistic Analysis                                                                       |
| Subarea I - Anthropological Methods                                             |                                                                                           |
| Complete 3 credits of the following courses:                                    |                                                                                           |
| ANTY 412                                                                        | Osteology                                                                                 |
| ANTY 413                                                                        | Forensic and Mortuary Archaeology                                                         |
| ANTY 418                                                                        | Evolution and Genetic Variation in Human Populations                                      |
| ANTY 431                                                                        | Ethnographic Field Methods                                                                |
| ANTY 451                                                                        | Cultural Resource Management                                                              |
| ANTY 454                                                                        | Lithic Technology                                                                         |
| ANTY 455                                                                        | Artifact Analysis                                                                         |
| ANTY 466                                                                        | Archaeological Survey                                                                     |
| ANTY 467                                                                        | Archaeological Field School                                                               |
| ANTY 476                                                                        | Methods for Native Languages                                                              |
| ANTY 495                                                                        | Field Experience/Practicum                                                                |
| LING 461                                                                        | Speech Data Annotation for Linguistics Research                                           |
| LING 474                                                                        | Historical Linguistics                                                                    |
| LING 475                                                                        | Linguistic Field Methods                                                                  |
| Subareas II, III, and IV                                                        |                                                                                           |
| Complete 3 credits from 2 of the 3 following subareas for a total of 6 credits. |                                                                                           |
| Subarea II: Human Adaptation and Diversity                                      |                                                                                           |
| ANTY 104                                                                        | Ancient Migrations                                                                        |
| ANTY 122S                                                                       | Race and Minorities                                                                       |
| ANTY 133X                                                                       | Food and Culture                                                                          |
| ANTY 310                                                                        | Human Variation                                                                           |
| ANTY 418                                                                        | Evolution and Genetic Variation in Human Populations                                      |
| LING 375X                                                                       | Linguistic Ecology and Language Endangerment                                              |
| Subarea III: World Societies and Cultures                                       |                                                                                           |
| ANTY 102H                                                                       | Intro to South & S. East Asia                                                             |
| ANTY 141H                                                                       | The Silk Road                                                                             |
| ANTY 150X                                                                       | Archaeology of Yellowstone: 11,000 Years of Native Americans in Yellowstone National Park |
| ANTY 241H                                                                       | Central Asian Culture and Civilization                                                    |
| ANTY 251                                                                        | Foundations of Civilization                                                               |
| ANTY 254X                                                                       | Archaeological Wonders of the World                                                       |
| ANTY 323X                                                                       | Native Peoples of Montana                                                                 |
| ANTY 330X                                                                       | Peoples and Cultures of World                                                             |
| ANTY 351H                                                                       | Archaeology of North America                                                              |
| ANTY 352X                                                                       | Archaeology of Montana                                                                    |
| ANTY 353                                                                        | PaleoIndian Archaeology                                                                   |
| ANTY 354H                                                                       | Mesoamerican Prehistory                                                                   |
| ANTY 442                                                                        | Cities and Landscapes of Central Asia                                                     |
| ANTY 444                                                                        | Artistic Traditions of Central Asia                                                       |

|                                 |                                                  |
|---------------------------------|--------------------------------------------------|
| ANTY 459                        | Archaeology of the Arctic and Subarctic          |
| ANTY 465                        | Archaeology of the Southwest United States       |
| ANTY 494                        | Seminar/Workshop                                 |
| Subarea IV: Concepts and Issues |                                                  |
| ANTY 126                        | Anthropology and Global Health                   |
| ANTY 314                        | Principles of Forensic Anthropology              |
| ANTY 326E                       | Indigenous Peoples & the Ethics of Development   |
| ANTY 336                        | Myth, Ritual and Religion                        |
| ANTY 422                        | Mind, Culture, and Society                       |
| ANTY 423                        | Culture and Identity                             |
| ANTY 427                        | Anthropology of Gender                           |
| LING 473                        | Language and Culture                             |
| LING 477                        | Bilingualism                                     |
| LING 484                        | North American Indigenous Language & Linguistics |
| LING 489                        | Morphology                                       |

#### Anthropology or Linguistics Electives

Complete 12 credits in Anthropology and Linguistics electives not completing core or subarea requirements. 12

#### Forensic and Biological Anthropology Concentration Core Courses

Complete all of the following courses:

|             |                                           |   |
|-------------|-------------------------------------------|---|
| ANTY 310    | Human Variation                           | 3 |
| ANTY 314    | Principles of Forensic Anthropology       | 3 |
| or ANTY 414 | Forensic Anthropology and Bioarchaeology  |   |
| CJUS 125N   | Fundamentals of Forensic Science          | 3 |
| or CJUS 488 | Forensic Science the Crime Lab and Beyond |   |
| SOCI 211S   | Introduction to Criminology               | 3 |
| or SOCI 221 | Criminal Justice System                   |   |

Complete one of the following courses: 3

|          |                                                      |
|----------|------------------------------------------------------|
| ANTY 412 | Osteology                                            |
| ANTY 415 | Emergence of Modern Humans                           |
| ANTY 418 | Evolution and Genetic Variation in Human Populations |

#### Forensic and Biological Anthropology Concentration Electives

Complete 12 credits in courses relevant to the Forensic Sciences, such as (but not limited to) Biological Anthropology beyond ANTY 210N, Archaeology beyond ANTY 250S, Biology, Chemistry, Criminology, Drawing, Geosciences, Pharmacy, Photography, Public Speaking, or Psychology. Courses in ANTY or LING may count as electives for the Anthropology major. Please speak with an advisor in the Anthropology Department about which courses complete this requirement. 12

Total Hours

66

## Anthropology B.A. - Linguistic Anthropology

### General Degree Requirements

To earn a baccalaureate degree, all students must complete successfully, in addition to any other requirements, the University of Montana

General Education Requirements. Please refer to the General Education Requirements page (p. 39) for more information.

Additional requirements for graduation can be found on the Degree/Certificate Requirements for Graduation page (p. 36).

Unless otherwise noted in individual program requirements, a minimum grade point average of 2.00 in all work attempted at the University of Montana-Missoula is required for graduation. Please see the Academic Policies and Procedures page (p. 25) for information on how your GPA is calculated.

Courses taken to satisfy the requirements of a major, minor, or certificate program must be completed with a grade of C- or better unless a higher grade is noted in the program requirements.

### Online Program Option

This program may be completed in an online format (<https://catalog.umn.edu/online-programs/definitions/>). Students interested in pursuing an online degree or certificate program are strongly encouraged to contact the offering department to discuss specific program and course modalities (<https://catalog.umn.edu/online-programs/definitions/>) and create a plan of study with an academic advisor. The course requirements listed below may not be consistently offered via online delivery.

### Bachelor of Arts - Anthropology; Linguistic Anthropology Concentration Course Requirements

| Code                                           | Title                                                          | Hours |
|------------------------------------------------|----------------------------------------------------------------|-------|
| <b>Lower-Division Core Courses</b>             |                                                                |       |
| Complete all of the following courses:         |                                                                |       |
| ANTY 201                                       | Anthropology for Majors: Understanding the Four-Field Approach | 3     |
| or ANTY 220S                                   | Culture & Society                                              |       |
| ANTY 210N                                      | Introduction to Biological Anthropology                        | 3     |
| ANTY 250S                                      | Intro to Archaeology                                           | 3     |
| LING 270S                                      | Intro to Linguistics                                           | 3     |
| <b>Statistics</b>                              |                                                                |       |
| Complete one of the following courses: 3       |                                                                |       |
| ANTY 208                                       | Anthropological Statistics                                     |       |
| ANTY 401                                       | Anthropological Data Analysis                                  |       |
| ECNS 403                                       | Introduction to Econometrics                                   |       |
| PSYX 222                                       | Psychological Statistics                                       |       |
| SOCI 202                                       | Social Statistics                                              |       |
| STAT 216                                       | Introduction to Statistics                                     |       |
| FORS 201                                       | Forest Biometrics                                              |       |
| <b>Subarea I - Anthropological Theory</b>      |                                                                |       |
| Complete 3 credits of the following courses: 3 |                                                                |       |
| ANTY 312                                       | Human Evolution                                                |       |
| ANTY 400                                       | History of Anthropology                                        |       |
| ANTY 403                                       | Public Anthropology                                            |       |
| ANTY 404                                       | Anthropological Museology                                      |       |
| ANTY 415                                       | Emergence of Modern Humans                                     |       |
| ANTY 430                                       | Social Anthropology                                            |       |



|                                                                                 |                                                                                           |   |
|---------------------------------------------------------------------------------|-------------------------------------------------------------------------------------------|---|
| ANTY 450                                                                        | Archaeological Theory                                                                     |   |
| ANTY 456                                                                        | Historical Archaeology                                                                    |   |
| ANTY 458                                                                        | Archaeology of Hunter-Gatherers                                                           |   |
| LING 470                                                                        | Linguistic Analysis                                                                       |   |
| <b>Subarea I - Anthropological Methods</b>                                      |                                                                                           |   |
| Complete 3 credits of the following courses:                                    |                                                                                           | 3 |
| ANTY 412                                                                        | Osteology                                                                                 |   |
| ANTY 413                                                                        | Forensic and Mortuary Archaeology                                                         |   |
| ANTY 418                                                                        | Evolution and Genetic Variation in Human Populations                                      |   |
| ANTY 431                                                                        | Ethnographic Field Methods                                                                |   |
| ANTY 451                                                                        | Cultural Resource Management                                                              |   |
| ANTY 454                                                                        | Lithic Technology                                                                         |   |
| ANTY 455                                                                        | Artifact Analysis                                                                         |   |
| ANTY 466                                                                        | Archaeological Survey                                                                     |   |
| ANTY 467                                                                        | Archaeological Field School                                                               |   |
| ANTY 476                                                                        | Methods for Native Languages                                                              |   |
| ANTY 495                                                                        | Field Experience/Practicum                                                                |   |
| LING 461                                                                        | Speech Data Annotation for Linguistics Research                                           |   |
| LING 474                                                                        | Historical Linguistics                                                                    |   |
| LING 475                                                                        | Linguistic Field Methods                                                                  |   |
| <b>Subareas II, III, and IV</b>                                                 |                                                                                           |   |
| Complete 3 credits from 2 of the 3 following subareas for a total of 6 credits. |                                                                                           | 6 |
| <b>Subarea II: Human Adaptation and Diversity</b>                               |                                                                                           |   |
| ANTY 104                                                                        | Ancient Migrations                                                                        |   |
| ANTY 122S                                                                       | Race and Minorities                                                                       |   |
| ANTY 133X                                                                       | Food and Culture                                                                          |   |
| ANTY 310                                                                        | Human Variation                                                                           |   |
| ANTY 418                                                                        | Evolution and Genetic Variation in Human Populations                                      |   |
| LING 375X                                                                       | Linguistic Ecology and Language Endangerment                                              |   |
| <b>Subarea III: World Societies and Cultures</b>                                |                                                                                           |   |
| ANTY 102H                                                                       | Intro to South & S. East Asia                                                             |   |
| ANTY 141H                                                                       | The Silk Road                                                                             |   |
| ANTY 150X                                                                       | Archaeology of Yellowstone: 11,000 Years of Native Americans in Yellowstone National Park |   |
| ANTY 241H                                                                       | Central Asian Culture and Civilization                                                    |   |
| ANTY 251                                                                        | Foundations of Civilization                                                               |   |
| ANTY 254X                                                                       | Archaeological Wonders of the World                                                       |   |
| ANTY 323X                                                                       | Native Peoples of Montana                                                                 |   |
| ANTY 330X                                                                       | Peoples and Cultures of World                                                             |   |
| ANTY 351H                                                                       | Archaeology of North America                                                              |   |
| ANTY 352X                                                                       | Archaeology of Montana                                                                    |   |
| ANTY 353                                                                        | PaleoIndian Archaeology                                                                   |   |
| ANTY 354H                                                                       | Mesoamerican Prehistory                                                                   |   |
| ANTY 442                                                                        | Cities and Landscapes of Central Asia                                                     |   |
| ANTY 444                                                                        | Artistic Traditions of Central Asia                                                       |   |
| ANTY 459                                                                        | Archaeology of the Arctic and Subarctic                                                   |   |

|                                                                                                            |                                                                |    |
|------------------------------------------------------------------------------------------------------------|----------------------------------------------------------------|----|
| ANTY 465                                                                                                   | Archaeology of the Southwest United States                     |    |
| ANTY 494                                                                                                   | Seminar/Workshop                                               |    |
| <b>Subarea IV: Concepts and Issues</b>                                                                     |                                                                |    |
| ANTY 126                                                                                                   | Anthropology and Global Health                                 |    |
| ANTY 201                                                                                                   | Anthropology for Majors: Understanding the Four-Field Approach |    |
| ANTY 220S                                                                                                  | Culture & Society                                              |    |
| ANTY 314                                                                                                   | Principles of Forensic Anthropology                            |    |
| ANTY 326E                                                                                                  | Indigenous Peoples & the Ethics of Development                 |    |
| ANTY 336                                                                                                   | Myth, Ritual and Religion                                      |    |
| ANTY 422                                                                                                   | Mind, Culture, and Society                                     |    |
| ANTY 423                                                                                                   | Culture and Identity                                           |    |
| ANTY 427                                                                                                   | Anthropology of Gender                                         |    |
| LING 473                                                                                                   | Language and Culture                                           |    |
| LING 477                                                                                                   | Bilingualism                                                   |    |
| LING 484                                                                                                   | North American Indigenous Language & Linguistics               |    |
| LING 489                                                                                                   | Morphology                                                     |    |
| <b>Anthropology or Linguistics Electives</b>                                                               |                                                                |    |
| Complete 12 credits in Anthropology and Linguistics electives not completing core or subarea requirements. |                                                                | 12 |
| <b>Linguistic Anthropology Concentration Requirements</b>                                                  |                                                                |    |
| Complete all of the following courses:                                                                     |                                                                |    |
| LING 470                                                                                                   | Linguistic Analysis                                            | 3  |
| LING 473                                                                                                   | Language and Culture                                           | 3  |
| <b>Linguistic Anthropology Concentration Electives</b>                                                     |                                                                |    |
| Complete two of the following courses:                                                                     |                                                                | 6  |
| LING 375X                                                                                                  | Linguistic Ecology and Language Endangerment                   |    |
| LING 471                                                                                                   | Phonetics and Phonology                                        |    |
| LING 472                                                                                                   | Syntax                                                         |    |
| LING 474                                                                                                   | Historical Linguistics                                         |    |
| LING 475                                                                                                   | Linguistic Field Methods                                       |    |
| LING 477                                                                                                   | Bilingualism                                                   |    |
| LING 478                                                                                                   | Learner Language                                               |    |
| LING 484                                                                                                   | North American Indigenous Language & Linguistics               |    |
| LING 489                                                                                                   | Morphology                                                     |    |

|                    |           |
|--------------------|-----------|
| <b>Total Hours</b> | <b>51</b> |
|--------------------|-----------|

## Anthropology Minor

### General Degree Requirements

To earn a baccalaureate degree, all students must complete successfully, in addition to any other requirements, the University of Montana General Education Requirements. Please refer to the General Education Requirements page (p. 39) for more information.

Additional requirements for graduation can be found on the Degree/Certificate Requirements for Graduation page (p. 36).

Unless otherwise noted in individual program requirements, a minimum grade point average of 2.00 in all work attempted at the University of

Montana-Missoula is required for graduation. Please see the Academic Policies and Procedures page (p. 25) for information on how your GPA is calculated.

Courses taken to satisfy the requirements of a major, minor, or certificate program must be completed with a grade of C- or better unless a higher grade is noted in the program requirements.

## Minor - Anthropology

### Course Requirements

| Code                                                      | Title                                                          | Hours |
|-----------------------------------------------------------|----------------------------------------------------------------|-------|
| <b>Lower-Division Core Courses</b>                        |                                                                |       |
| Complete all of the following courses:                    |                                                                |       |
| ANTY 201                                                  | Anthropology for Majors: Understanding the Four-Field Approach | 3     |
| or ANTY 220S                                              | Culture & Society                                              |       |
| ANTY 210N                                                 | Introduction to Biological Anthropology                        | 3     |
| ANTY 250S                                                 | Intro to Archaeology                                           | 3     |
| LING 270S                                                 | Intro to Linguistics                                           | 3     |
| <b>Subarea I Electives</b>                                |                                                                |       |
| Complete at least 3 credits in one the following courses: |                                                                |       |
| ANTY 312                                                  | Human Evolution                                                |       |
| ANTY 400                                                  | History of Anthropology                                        |       |
| ANTY 403                                                  | Public Anthropology                                            |       |
| ANTY 404                                                  | Anthropological Museology                                      |       |
| ANTY 412                                                  | Osteology                                                      |       |
| ANTY 413                                                  | Forensic and Mortuary Archaeology                              |       |
| ANTY 415                                                  | Emergence of Modern Humans                                     |       |
| ANTY 430                                                  | Social Anthropology                                            |       |
| ANTY 431                                                  | Ethnographic Field Methods                                     |       |
| ANTY 450                                                  | Archaeological Theory                                          |       |
| ANTY 451                                                  | Cultural Resource Management                                   |       |
| ANTY 454                                                  | Lithic Technology                                              |       |
| ANTY 455                                                  | Artifact Analysis                                              |       |
| ANTY 456                                                  | Historical Archaeology                                         |       |
| ANTY 458                                                  | Archaeology of Hunter-Gatherers                                |       |
| ANTY 466                                                  | Archaeological Survey                                          |       |
| ANTY 467                                                  | Archaeological Field School                                    |       |
| ANTY 476                                                  | Methods for Native Languages                                   |       |
| ANTY 495                                                  | Field Experience/Practicum                                     |       |
| LING 461                                                  | Speech Data Annotation for Linguistics Research                |       |
| LING 474                                                  | Historical Linguistics                                         |       |
| LING 475                                                  | Linguistic Field Methods                                       |       |
| <b>Subareas II, III, and IV Electives</b>                 |                                                                |       |
| Complete 3 credits of the following courses:              |                                                                |       |
| ANTY 102H                                                 | Intro to South & S. East Asia                                  | 3     |
| ANTY 104                                                  | Ancient Migrations                                             |       |
| ANTY 122S                                                 | Race and Minorities                                            |       |
| ANTY 126                                                  | Anthropology and Global Health                                 |       |
| ANTY 133X                                                 | Food and Culture                                               |       |

|             |                                                                                           |    |
|-------------|-------------------------------------------------------------------------------------------|----|
| ANTY 150X   | Archaeology of Yellowstone: 11,000 Years of Native Americans in Yellowstone National Park |    |
| ANTY 201    | Anthropology for Majors: Understanding the Four-Field Approach                            |    |
| ANTY 220S   | Culture & Society                                                                         |    |
| ANTY 310    | Human Variation                                                                           |    |
| ANTY 314    | Principles of Forensic Anthropology                                                       |    |
| ANTY 323X   | Native Peoples of Montana                                                                 |    |
| ANTY 326E   | Indigenous Peoples & the Ethics of Development                                            |    |
| ANTY 330X   | Peoples and Cultures of World                                                             |    |
| ANTY 336    | Myth, Ritual and Religion                                                                 |    |
| ANTY 351H   | Archaeology of North America                                                              |    |
| ANTY 352X   | Archaeology of Montana                                                                    |    |
| ANTY 353    | PaleoIndian Archaeology                                                                   |    |
| ANTY 354H   | Mesoamerican Prehistory                                                                   |    |
| ANTY 418    | Evolution and Genetic Variation in Human Populations                                      |    |
| ANTY 422    | Mind, Culture, and Society                                                                |    |
| ANTY 423    | Culture and Identity                                                                      |    |
| ANTY 427    | Anthropology of Gender                                                                    |    |
| ANTY 442    | Cities and Landscapes of Central Asia                                                     |    |
| ANTY 444    | Artistic Traditions of Central Asia                                                       |    |
| ANTY 459    | Archaeology of the Arctic and Subarctic                                                   |    |
| ANTY 465    | Archaeology of the Southwest United States                                                |    |
| LING 375X   | Linguistic Ecology and Language Endangerment                                              |    |
| LING 473    | Language and Culture                                                                      |    |
| LING 477    | Bilingualism                                                                              |    |
| LING 484    | North American Indigenous Language & Linguistics                                          |    |
| LING 489    | Morphology                                                                                |    |
| Total Hours |                                                                                           | 18 |

## Forensic Studies Certificate

The Certificate in Forensic Studies is primarily designed as a step toward a baccalaureate degree for those interested in a career in the forensic sciences or a related field. It is also designed as an avenue for law enforcement agents, forensic scientists, or other professionals in the justice system to satisfy mandatory continuing education requirements for continued employment or promotion.

Students may complete the requirements either as resident students at UM-Missoula or completely online.

To earn a certificate in Forensic Studies the student must complete a minimum of 18 credits, including 6 credits in core forensic science courses.

## General Certificate Requirements

Additional requirements for graduation can be found on the Degree/Certificate Requirements for Graduation page (p. 36).

Unless otherwise noted in individual program requirements, a minimum grade point average of 2.00 in all work attempted at the University of Montana-Missoula is required for graduation. Please see the Academic Policies and Procedures page (p. 25) for information on how your GPA is calculated.

Courses taken to satisfy the requirements of a major, minor, or certificate program must be completed with a grade of C- or better unless a higher grade is noted in the program requirements.

Online Program Option

This program may be completed in an online format (<https://catalog.UMT.edu/online-programs/definitions/>). Students interested in pursuing an online degree or certificate program are strongly encouraged to contact the offering department to discuss specific program and course modalities (<https://catalog.UMT.edu/online-programs/definitions/>) and create a plan of study with an academic advisor. The course requirements listed below may not be consistently offered via online delivery.

Post-Secondary Certificate - Forensic Studies

Course Requirements

| Code                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              | Title                                     | Hours |
|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-------------------------------------------|-------|
| Core Courses                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      |                                           |       |
| Complete all of the following courses:                                                                                                                                                                                                                                                                                                                                                                                                                                                                            |                                           |       |
| CJUS 125N                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         | Fundamentals of Forensic Science          | 3     |
| CJUS 488                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          | Forensic Science the Crime Lab and Beyond | 3     |
| Science Electives                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 |                                           |       |
| Complete six credits in courses with a suffix of "N" (courses that have been designated as University of Montana-Missoula General Education Group XI, Natural Sciences) in any department. Any Criminology courses offered through the Sociology department also count towards meeting this requirement. Courses numbered under 100 may not be counted toward meeting this requirement. Please speak with your advisor about which courses may meet this requirement.                                             |                                           | 6     |
| Communication Elective                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            |                                           |       |
| Complete one 3-credit course related to written, oral, or pictorial communication, including selected courses in Art, Curriculum & Instruction, Communication Studies, Computer Science, Forestry, Journalism, Linguistics, Media Arts or any intermediate or advanced writing course. Courses numbered under 100 may not be counted toward meeting this requirement. WRIT 101 will not be accepted as fulfilling this requirement. Please speak with your advisor about which courses may meet this requirement. |                                           | 3     |
| Ethics Elective                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   |                                           |       |
| Complete one 3-credit course that has been designated as a University of Montana - Missoula General Education Group VIII (Ethics and Human Values) course in any department.                                                                                                                                                                                                                                                                                                                                      |                                           | 3     |
| Total Hours                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       |                                           | 18    |

Historic Preservation Certificate

Historic Preservation is the interdisciplinary field that seeks to identify, document, preserve, and protect significant structures, sites, and landscapes.

General Certificate Requirements

Additional requirements for graduation can be found on the Degree/Certificate Requirements for Graduation page (p. 36).

Unless otherwise noted in individual program requirements, a minimum grade point average of 2.00 in all work attempted at the University of Montana-Missoula is required for graduation. Please see the Academic Policies and Procedures page (p. 25) for information on how your GPA is calculated.

Courses taken to satisfy the requirements of a major, minor, or certificate program must be completed with a grade of C- or better unless a higher grade is noted in the program requirements.

Post-Secondary Certificate - Historic Preservation

Course Requirements

| Code                                             | Title                           | Hours |
|--------------------------------------------------|---------------------------------|-------|
| Core Courses                                     |                                 |       |
| Complete all of the following courses:           |                                 |       |
| ANTY 451                                         | Cultural Resource Management    | 3     |
| ANTY 456                                         | Historical Archaeology          | 3     |
| GPHY 465                                         | Planning Principles & Processes | 3     |
| HPRV 400                                         | Historic Preservation           | 3     |
| History Electives                                |                                 |       |
| Complete 3 credits of the following courses:     |                                 | 3     |
| HSTA 320                                         | Birth of Modern US              |       |
| HSTA 321                                         | America in Crisis               |       |
| HSTA 322                                         | U.S. History: WWII to Present   |       |
| Internship or Independent Study <sup>1</sup>     |                                 |       |
| Complete three credits of the following courses: |                                 | 3     |
| ANTY 398                                         | Internship                      |       |
| ANTY 492                                         | Independent Study               |       |
| Total Hours                                      |                                 | 18    |

<sup>1</sup> An internship must be with an approved, appropriate preservation-based agency or focused on an approved preservation-based topic.

Applied Science

The Bachelor of Applied Science (B.A.S.) degree at the University of Montana is designed for individuals who have completed an Associate of Applied Science (A.A.S.) degree and who want to pursue additional education to strengthen their planned or previous training and improve career advancement opportunities. As such, students pursuing the B.A.S. build a tailored degree plan that suits their specific academic and professional goals.

For additional information, individuals should contact the College of Humanities and Sciences Academic Advising office at [HSAdvising@umontana.edu](mailto:HSAdvising@umontana.edu).

- Bachelor of Applied Science (p. 209)

## Bachelor of Applied Science

### General Degree Requirements

To earn a baccalaureate degree, all students must complete successfully, in addition to any other requirements, the University of Montana General Education Requirements. Please refer to the General Education Requirements page (p. 39) for more information.

Additional requirements for graduation can be found on the Degree/Certificate Requirements for Graduation page (p. 36).

Unless otherwise noted in individual program requirements, a minimum grade point average of 2.00 in all work attempted at the University of Montana-Missoula is required for graduation. Please see the Academic Policies and Procedures page (p. 25) for information on how your GPA is calculated.

Courses taken to satisfy the requirements of a major, minor, or certificate program must be completed with a grade of C- or better unless a higher grade is noted in the program requirements.

## Bachelor of Applied Science

### Degree Requirements

Only students who have earned an A.A.S. degree from a regionally accredited institution for higher education with at least a 2.50 cumulative GPA are eligible to pursue the B.A.S. at UM. The degree requirements for the B.A.S. degree include completion of:

- A minimum of 127 total earned semester credits.
- The University of Montana General Education Requirements (GERs). Categories and approved courses are listed on the General Education Requirements website. (p. 39)
- Students must complete 39 upper-division credits. At least 30 of the 39 upper-division credits must be from the degree plan.

### Degree Plan

As part of the B.A.S. curriculum, students must develop a degree plan tailored to their academic and professional goals. Due to the nature of the B.A.S., courses from multiple disciplines may be included. Students initially meet with a B.A.S. advisor in the College of Humanities and Sciences for assistance in developing their degree plan curriculum. Students then create a committee that consists of at least 3 faculty members from disciplines represented in the plan. This committee provides final approval of the proposed curriculum.

It is important to understand that the B.A.S. degree does not identify a specific discipline major. Even though some plans may consist of courses from one discipline (e.g. communication studies, psychology, geology), the student is *not* a Communication Studies, Psychology, or Geology major. Hence, the B.A.S. student's transcript and diploma will not indicate a specific major.

## Central and Southwest Asian Studies

The University of Montana has emerged as a national and international leader in recognizing the significance of Central and Southwest Asia and translating that awareness into a major academic program. The program builds on significant faculty experience and expertise in the region and includes scholars from a variety of academic disciplines. The program has also organized intensive summer language training programs at UM as well as summer study tours for K-12 teachers to Central Asia. It also hosts an annual conference that brings leading scholars, diplomats, analysts, and journalists to the UM campus.

The University of Montana offers an undergraduate major as well as a minor in Central and Southwest Asian Studies. Arabic, Chinese, and Russian language instruction are also offered. Faculty exchanges have been organized with universities in China, Egypt, Georgia, Kazakhstan, Kyrgyzstan, Morocco, Russia, and Tajikistan.

- Central and Southwest Asian Studies B.A. (p. 209)
- Central and Southwest Asian Studies Minor (p. 210)

## Central and Southwest Asian Studies

### B.A.

### General Degree Requirements

To earn a baccalaureate degree, all students must complete successfully, in addition to any other requirements, the University of Montana General Education Requirements. Please refer to the General Education Requirements page (p. 39) for more information.

Additional requirements for graduation can be found on the Degree/Certificate Requirements for Graduation page (p. 36).

Unless otherwise noted in individual program requirements, a minimum grade point average of 2.00 in all work attempted at the University of Montana-Missoula is required for graduation. Please see the Academic Policies and Procedures page (p. 25) for information on how your GPA is calculated.

Courses taken to satisfy the requirements of a major, minor, or certificate program must be completed with a grade of C- or better unless a higher grade is noted in the program requirements.

## Bachelor of Arts - Central and Southwest Asian Studies

### Course Requirements

| Code                                     | Title                                  | Hours |
|------------------------------------------|----------------------------------------|-------|
| <b>Lower-Division Core Courses</b>       |                                        |       |
| Complete all of the following courses:   |                                        |       |
| ANTY 141H                                | The Silk Road                          | 3     |
| ANTY 241H                                | Central Asian Culture and Civilization | 3     |
| HSTR 262H                                | Islamic Civilization: Classical Age    | 3     |
| <b>Upper-Division Core Courses</b>       |                                        |       |
| Complete three of the following courses: |                                        | 9     |
| ANTY 347                                 | Central Asia and Its Neighbors         |       |
| ANTY 444                                 | Artistic Traditions of Central Asia    |       |
| HSTR 368                                 | Iran Between Two Revolutions           |       |

|                                                                      |                                                                                                                                                                   |              |
|----------------------------------------------------------------------|-------------------------------------------------------------------------------------------------------------------------------------------------------------------|--------------|
| HSTR 386                                                             | Nationalism and the Modern Middle East                                                                                                                            |              |
| <b>Language Requirement <sup>1</sup></b>                             |                                                                                                                                                                   |              |
| Complete the second year sequence of one of the following languages: |                                                                                                                                                                   | 16-20        |
| <b>Arabic</b>                                                        |                                                                                                                                                                   |              |
| ARAB 101 & ARAB 102 & ARAB 201 & ARAB 202                            | Elementary Modern Standard Arabic I and Elementary Modern Standard Arabic II and Intermediate Modern Standard Arabic I and Intermediate Modern Standard Arabic II |              |
| <b>Chinese</b>                                                       |                                                                                                                                                                   |              |
| CHIN 101 & CHIN 102 & CHIN 201 & CHIN 202                            | Elementary Chinese I and Elementary Chinese II and Intermediate Chinese I and Intermediate Chinese II                                                             |              |
| <b>Russian</b>                                                       |                                                                                                                                                                   |              |
| RUSS 101 & RUSS 102 & RUSS 201 & RUSS 202                            | Elementary Russian I and Elementary Russian II and Intermediate Russian I and Intermediate Russian II                                                             |              |
| <b>Capstone Requirement</b>                                          |                                                                                                                                                                   |              |
| ANTY 494                                                             | Seminar/Workshop                                                                                                                                                  | 3            |
| <b>Total Hours</b>                                                   |                                                                                                                                                                   | <b>37-41</b> |

<sup>1</sup> Students are strongly recommended to take a third or fourth year of language study.

## Central and Southwest Asian Studies Minor

The Central and Southwest Asian Studies Minor is available to all students and consists of eighteen credits. Students selecting the minor are required to successfully complete ANTY 141H and six credits in foundational Central and Southwest Asian Studies courses (200-level courses). Students must then complete nine credits of additional course work at the 300- or 400- level. No language courses are required; however, students pursuing the minor are strongly encouraged to meet the university-wide general education modern and classical language competency requirement by completing at least the second semester of one of the following languages (100 level or higher): Chinese, Persian, Arabic, Turkish or Russian. Participation in a study-abroad program is strongly recommended.

## General Degree Requirements

To earn a baccalaureate degree, all students must complete successfully, in addition to any other requirements, the University of Montana General Education Requirements. Please refer to the General Education Requirements page (p. 39) for more information.

Additional requirements for graduation can be found on the Degree/Certificate Requirements for Graduation page (p. 36).

Unless otherwise noted in individual program requirements, a minimum grade point average of 2.00 in all work attempted at the University of Montana-Missoula is required for graduation. Please see the Academic

Policies and Procedures page (p. 25) for information on how your GPA is calculated.

Courses taken to satisfy the requirements of a major, minor, or certificate program must be completed with a grade of C- or better unless a higher grade is noted in the program requirements.

## Minor - Central and Southwest Asian Studies

### Course Requirements

| Code                                            | Title                                           | Hours     |
|-------------------------------------------------|-------------------------------------------------|-----------|
| <b>Introductory and Foundational Courses</b>    |                                                 |           |
| Complete all of the following courses:          |                                                 |           |
| ANTY 141H                                       | The Silk Road                                   | 3         |
| ANTY 241H                                       | Central Asian Culture and Civilization          | 3         |
| HSTR 262H                                       | Islamic Civilization: Classical Age             | 3         |
| <b>Complete three of the following courses:</b> |                                                 | <b>9</b>  |
| ANTY 347                                        | Central Asia and Its Neighbors                  |           |
| ANTY 442                                        | Cities and Landscapes of Central Asia           |           |
| ANTY 444                                        | Artistic Traditions of Central Asia             |           |
| ANTY 492                                        | Independent Study                               |           |
| HSTR 368                                        | Iran Between Two Revolutions                    |           |
| HSTR 386                                        | Nationalism and the Modern Middle East          |           |
| HSTR 492                                        | Independent Study (Must be taken for 3 credits) |           |
| HSTR 494                                        | Seminar (Central Asia)                          |           |
| <b>Total Hours</b>                              |                                                 | <b>18</b> |

## Communication Studies

Communication Studies engages in both social-scientific and humanistic approaches to the analysis, understanding, and improvement of human communication. The discipline traces its roots to ancient Greek and Roman studies of the functions of public discourse in society, but in the twentieth century communication came to embrace the studies of interpersonal and small group interaction, human relations in organizations, media and society, and intercultural interaction. Although interdisciplinary in spirit, the discipline has a core of knowledge, theory, and concepts concentrating on such things as symbols, messages, interactions, networks, audiences, and persuasive campaigns. Uniting the field is the belief that the role of communication in human experience is basic to comprehending complex situations and problems in the modern world. The discipline has roles in both the broad traditions of liberal arts education and in the development and refinement of practical skills.

The Department of Communication Studies at the University of Montana-Missoula focuses on three broad areas of study: interpersonal interaction and human relationships, organizational communication, and rhetoric and public discourse. The knowledge and skills the student may acquire in each of these areas are important to functioning effectively in one's personal life, at work, and as a citizen of the larger society in a rapidly changing world.

The program in Communication Studies helps to prepare students for such diverse professions as: public relations officer, marketing analyst, human resources or personnel manager, community mediator, political speech writer, health communication trainer, social services director, or student services coordinator. Also, undergraduate and graduate study



can assist the student in pursuing advanced studies for law, the ministry, and higher education.

- Communication Studies B.A. (p. 211)
- Communication Studies B.A. - Advocacy and Social Movements (p. 212)
- Communication Studies B.A. - Interpersonal and Family Communication (p. 213)
- Communication Studies B.A. - Organizational and Strategic Communication (p. 214)
- Communication Studies Minor (p. 215)
- Health Communication Certificate (p. 215)
- Public Relations Certificate (p. 216)

## Communication Studies B.A.

### General Degree Requirements

To earn a baccalaureate degree, all students must complete successfully, in addition to any other requirements, the University of Montana General Education Requirements. Please refer to the General Education Requirements page (p. 39) for more information.

Additional requirements for graduation can be found on the Degree/Certificate Requirements for Graduation page (p. 36).

Unless otherwise noted in individual program requirements, a minimum grade point average of 2.00 in all work attempted at the University of Montana-Missoula is required for graduation. Please see the Academic Policies and Procedures page (p. 25) for information on how your GPA is calculated.

Courses taken to satisfy the requirements of a major, minor, or certificate program must be completed with a grade of C- or better unless a higher grade is noted in the program requirements.

### Bachelor of Arts - Communication Studies

- The Major in Communication Studies requires 36 credits of Communication Studies (COMX) courses with 18 of those credits in courses numbered 300 or above.
- A maximum of 6 credits in COMX 312 and a maximum of 6 credits in COMX 398 may count toward the major.
- Students taking COMX 460 or COMX 462 are encouraged to concurrently enroll in the one-credit COMX 461 when offered.

### Course Requirements

| Code                                   | Title                                        | Hours |
|----------------------------------------|----------------------------------------------|-------|
| <b>Core Courses</b>                    |                                              |       |
| Complete all of the following courses: |                                              |       |
| COMX 111A                              | Introduction to Public Speaking              | 3     |
| COMX 115S                              | Introduction to Interpersonal Communication  | 3     |
| COMX 220S                              | Introduction to Organizational Communication | 3     |
| COMX 240H                              | Introduction to Rhetorical Theory            | 3     |
| <b>Research</b>                        |                                              |       |
| Complete one of the following courses: |                                              |       |
| COMX 445                               | Rhetorical Criticism and Theory              | 3     |

|                                                                                |                                          |           |
|--------------------------------------------------------------------------------|------------------------------------------|-----------|
| COMX 460                                                                       | Research Methods                         |           |
| COMX 462                                                                       | Qualitative Research Methods             |           |
| <b>Writing in the Disciplines Requirement</b>                                  |                                          |           |
| Complete one of the following courses:                                         |                                          | 3         |
| COMX 347                                                                       | Rhetoric, Nature, and Environmentalism   |           |
| COMX 414                                                                       | Communication in Personal Relationships  |           |
| COMX 421                                                                       | Communication in Nonprofit Organizations |           |
| COMX 422                                                                       | Communication and Technology             |           |
| COMX 449                                                                       | Rhetoric of Women's Activism             |           |
| <b>Additional Major Electives</b>                                              |                                          |           |
| Complete 18 COMX credits to achieve a total of 36 COMX credits for the degree. |                                          | 18        |
| <b>Total Hours</b>                                                             |                                          | <b>36</b> |

### Four Year Plan

| Course                                                                              | Title                                                                                                                                                                                                                                                                             | Hours     |
|-------------------------------------------------------------------------------------|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-----------|
| <b>Freshman</b>                                                                     |                                                                                                                                                                                                                                                                                   |           |
| <b>Autumn</b>                                                                       |                                                                                                                                                                                                                                                                                   |           |
| COMX 111A                                                                           | Introduction to Public Speaking                                                                                                                                                                                                                                                   | 3         |
| WRIT 101                                                                            | College Writing I                                                                                                                                                                                                                                                                 | 4         |
| Foreign Language 101                                                                |                                                                                                                                                                                                                                                                                   | 4         |
| General Education Requirement                                                       |                                                                                                                                                                                                                                                                                   | 3         |
| HUSC 194                                                                            | Seminar/Workshop                                                                                                                                                                                                                                                                  | 1         |
| <b>Hours</b>                                                                        |                                                                                                                                                                                                                                                                                   | <b>15</b> |
| <b>Spring</b>                                                                       |                                                                                                                                                                                                                                                                                   |           |
| COMX 115S                                                                           | Introduction to Interpersonal Communication                                                                                                                                                                                                                                       | 3         |
| M 115                                                                               | Probability and Linear Mathematics (or a different level math course)                                                                                                                                                                                                             | 4         |
| Foreign Language 102                                                                |                                                                                                                                                                                                                                                                                   | 4         |
| General Education Requirement                                                       |                                                                                                                                                                                                                                                                                   | 6         |
| <b>Hours</b>                                                                        |                                                                                                                                                                                                                                                                                   | <b>17</b> |
| <b>Sophomore</b>                                                                    |                                                                                                                                                                                                                                                                                   |           |
| <b>Autumn</b>                                                                       |                                                                                                                                                                                                                                                                                   |           |
| COMX 220S                                                                           | Introduction to Organizational Communication                                                                                                                                                                                                                                      | 3         |
| COMX 240H                                                                           | Introduction to Rhetorical Theory                                                                                                                                                                                                                                                 | 3         |
| General Education Requirement                                                       |                                                                                                                                                                                                                                                                                   | 6         |
| Elective                                                                            |                                                                                                                                                                                                                                                                                   | 3         |
| <b>Hours</b>                                                                        |                                                                                                                                                                                                                                                                                   | <b>15</b> |
| <b>Spring</b>                                                                       |                                                                                                                                                                                                                                                                                   |           |
| Intermediate Writing Course                                                         |                                                                                                                                                                                                                                                                                   | 3         |
| COMX Elective                                                                       |                                                                                                                                                                                                                                                                                   | 3         |
| General Education Requirement                                                       |                                                                                                                                                                                                                                                                                   | 3         |
| Elective                                                                            |                                                                                                                                                                                                                                                                                   | 6         |
| <b>Hours</b>                                                                        |                                                                                                                                                                                                                                                                                   | <b>15</b> |
| <b>Junior</b>                                                                       |                                                                                                                                                                                                                                                                                   |           |
| <b>Autumn</b>                                                                       |                                                                                                                                                                                                                                                                                   |           |
| COMX Elective (300+)                                                                |                                                                                                                                                                                                                                                                                   | 6         |
| Elective (300+)                                                                     |                                                                                                                                                                                                                                                                                   | 6         |
| Elective                                                                            |                                                                                                                                                                                                                                                                                   | 3         |
| <b>Hours</b>                                                                        |                                                                                                                                                                                                                                                                                   | <b>15</b> |
| <b>Spring</b>                                                                       |                                                                                                                                                                                                                                                                                   |           |
| COMX Elective (300+)                                                                |                                                                                                                                                                                                                                                                                   | 3         |
| COMX 347<br>or COMX 414<br>or COMX 421<br>or COMX 422<br>or COMX 424<br>or COMX 445 | Rhetoric, Nature, and Environmentalism (COMX Advanced Writing Course)<br>or Communication in Personal Relationships<br>or Communication in Nonprofit Organizations<br>or Communication and Technology<br>or Risk, Crisis, and Communication<br>or Rhetorical Criticism and Theory | 3         |
| COMX Elective                                                                       |                                                                                                                                                                                                                                                                                   | 3         |

|                         |                                                                                                 |
|-------------------------|-------------------------------------------------------------------------------------------------|
| Elective (300+)         | 3                                                                                               |
| Elective                | 3                                                                                               |
| Hours                   | 15                                                                                              |
| <b>Senior</b>           |                                                                                                 |
| <b>Autumn</b>           |                                                                                                 |
| COMX 445<br>or COMX 460 | Rhetorical Criticism and Theory (or COMX 491 ST<br>Qualitative Methods)<br>or Research Methods3 |
| Elective (300+)         | 6                                                                                               |
| Elective                | 6                                                                                               |
| Hours                   | 15                                                                                              |
| <b>Spring</b>           |                                                                                                 |
| COMX Elective (300+)    | 3                                                                                               |
| Elective (300+)         | 6                                                                                               |
| Elective                | 6                                                                                               |
| Hours                   | 15                                                                                              |
| Total Hours             | 122                                                                                             |

Last updated Autumn 2024

The major requires a minimum of 36 total COMX credits, including at least 18 upper division COMX credits with grades of C- or higher. A maximum of 6 credits in COMX 312 and a maximum of 6 credits in COMX 398 can be counted towards the major.

Three Year Plan

| Course                        | Title                                                                 | Hours |
|-------------------------------|-----------------------------------------------------------------------|-------|
| <b>First Year</b>             |                                                                       |       |
| <b>Autumn</b>                 |                                                                       |       |
| COMX 220S                     | Introduction to Organizational Communication                          | 3     |
| COMX 111A                     | Introduction to Public Speaking                                       | 3     |
| WRIT 101                      | College Writing I                                                     | 4     |
| General Education Requirement |                                                                       | 6     |
| HUSC 194                      | Seminar/Workshop                                                      | 1     |
| Hours                         |                                                                       | 17    |
| <b>Spring</b>                 |                                                                       |       |
| COMX 115S                     | Introduction to Interpersonal Communication                           | 3     |
| M 115                         | Probability and Linear Mathematics (or a different level math course) | 4     |
| Intermediate Writing Course   |                                                                       | 3     |
| General Education Requirement |                                                                       | 6     |
| Elective                      |                                                                       | 1     |
| Hours                         |                                                                       | 17    |
| <b>Summer</b>                 |                                                                       |       |
| Foreign Language 101          |                                                                       | 4     |
| Foreign Language 102          |                                                                       | 4     |
| Hours                         |                                                                       | 8     |
| <b>Second Year</b>            |                                                                       |       |
| <b>Autumn</b>                 |                                                                       |       |
| COMX 240H                     | Introduction to Rhetorical Theory                                     | 3     |
| General Education Requirement |                                                                       | 6     |
| COMX Elective (300+)          |                                                                       | 3     |
| Elective (300+)               |                                                                       | 3     |
| Elective                      |                                                                       | 3     |
| Hours                         |                                                                       | 18    |
| <b>Spring</b>                 |                                                                       |       |
| COMX Elective (300+)          |                                                                       | 3     |
| Elective (300+)               |                                                                       | 6     |
| Elective                      |                                                                       | 9     |
| Hours                         |                                                                       | 18    |

|                                                                                     |                                                                                                                                                                                                                                                                                    |
|-------------------------------------------------------------------------------------|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| <b>Summer</b>                                                                       |                                                                                                                                                                                                                                                                                    |
| Elective                                                                            | 6                                                                                                                                                                                                                                                                                  |
| Hours                                                                               | 6                                                                                                                                                                                                                                                                                  |
| <b>Third Year</b>                                                                   |                                                                                                                                                                                                                                                                                    |
| <b>Autumn</b>                                                                       |                                                                                                                                                                                                                                                                                    |
| COMX 347<br>or COMX 414<br>or COMX 421<br>or COMX 422<br>or COMX 445<br>or COMX 449 | Rhetoric, Nature, and Environmentalism (COMX<br>Advanced Writing Course)<br>or Communication in Personal Relationships<br>or Communication in Nonprofit Organizations<br>or Communication and Technology<br>or Rhetorical Criticism and Theory<br>or Rhetoric of Women's Activism3 |
| COMX Elective (300+)                                                                | 3                                                                                                                                                                                                                                                                                  |
| Elective (300+)                                                                     | 6                                                                                                                                                                                                                                                                                  |
| Elective                                                                            | 6                                                                                                                                                                                                                                                                                  |
| Hours                                                                               | 18                                                                                                                                                                                                                                                                                 |
| <b>Spring</b>                                                                       |                                                                                                                                                                                                                                                                                    |
| COMX 445<br>or COMX 460                                                             | Rhetorical Criticism and Theory (or COMX 491 ST<br>Qualitative Methods)<br>or Research Methods3                                                                                                                                                                                    |
| COMX Elective (300+)                                                                | 3                                                                                                                                                                                                                                                                                  |
| Elective (300+)                                                                     | 6                                                                                                                                                                                                                                                                                  |
| Elective                                                                            | 6                                                                                                                                                                                                                                                                                  |
| Hours                                                                               | 18                                                                                                                                                                                                                                                                                 |
| Total Hours                                                                         | 120                                                                                                                                                                                                                                                                                |

Last updated Autumn 2024

Communication Studies B.A. - Advocacy and Social Movements  
General Degree Requirements

To earn a baccalaureate degree, all students must complete successfully, in addition to any other requirements, the University of Montana General Education Requirements. Please refer to the General Education Requirements page (p. 39) for more information.

Additional requirements for graduation can be found on the Degree/ Certificate Requirements for Graduation page (p. 36).

Unless otherwise noted in individual program requirements, a minimum grade point average of 2.00 in all work attempted at the University of Montana-Missoula is required for graduation. Please see the Academic Policies and Procedures page (p. 25) for information on how your GPA is calculated.

Courses taken to satisfy the requirements of a major, minor, or certificate program must be completed with a grade of C- or better unless a higher grade is noted in the program requirements.

Bachelor of Arts - Communication Studies; Advocacy and Social Movements Concentration

The Major in Communication Studies requires 36 credits in Communication Studies (COMX) courses with 18 of those credits in courses numbered 300 or above.

## Course Requirements

| Code                                                                   | Title                                             | Hours |
|------------------------------------------------------------------------|---------------------------------------------------|-------|
| <b>Lower-Division Core Courses</b>                                     |                                                   |       |
| Complete all of the following courses:                                 |                                                   |       |
| COMX 111A                                                              | Introduction to Public Speaking                   | 3     |
| COMX 115S                                                              | Introduction to Interpersonal Communication       | 3     |
| COMX 220S                                                              | Introduction to Organizational Communication      | 3     |
| COMX 240H                                                              | Introduction to Rhetorical Theory                 | 3     |
| <b>Upper-Division Core Courses - Research</b>                          |                                                   |       |
| Complete one of the following courses:                                 |                                                   |       |
| COMX 445                                                               | Rhetorical Criticism and Theory                   | 3     |
| COMX 460                                                               | Research Methods                                  | 3     |
| COMX 462                                                               | Qualitative Research Methods                      | 3     |
| <b>Upper-Division Core Courses - Writing in the Disciplines Course</b> |                                                   |       |
| Complete one of the following courses:                                 |                                                   |       |
| COMX 347                                                               | Rhetoric, Nature, and Environmentalism            | 3     |
| COMX 414                                                               | Communication in Personal Relationships           | 3     |
| COMX 421                                                               | Communication in Nonprofit Organizations          | 3     |
| COMX 422                                                               | Communication and Technology                      | 3     |
| COMX 445                                                               | Rhetorical Criticism and Theory                   | 3     |
| COMX 486                                                               | Health and Family Communication                   | 3     |
| <b>Advocacy and Social Movements Concentration - Major Courses</b>     |                                                   |       |
| Complete four of the following courses:                                |                                                   |       |
| COMX 191                                                               | Special Topics                                    | 12    |
| COMX 242                                                               | Argumentation                                     | 12    |
| COMX 291                                                               | Special Topics                                    | 12    |
| COMX 347                                                               | Rhetoric, Nature, and Environmentalism            | 12    |
| COMX 349                                                               | Communication, Consumption, and Climate           | 12    |
| COMX 380                                                               | Gender and Communication                          | 12    |
| COMX 391                                                               | Special Topics                                    | 12    |
| COMX 445                                                               | Rhetorical Criticism and Theory                   | 12    |
| COMX 448                                                               | Feminisms and Film                                | 12    |
| COMX 449                                                               | Rhetoric of Women's Activism                      | 12    |
| COMX 491                                                               | Special Topics                                    | 12    |
| <b>Advocacy and Social Movements Concentration - Allied Courses</b>    |                                                   |       |
| Complete three of the following courses:                               |                                                   |       |
| ANTY 122S                                                              | Race and Minorities                               | 9     |
| CCS 103X                                                               | Introduction to Climate Change: Science & Society | 9     |
| ENST 230H                                                              | Nature and Society                                | 9     |
| ENST 367                                                               | Environmental Politics & Policies                 | 9     |
| ENST 420                                                               | US Environmental Movement                         | 9     |
| HSTA 102H                                                              | American History II                               | 9     |
| HSTA 321                                                               | America in Crisis                                 | 9     |
| HSTA 322                                                               | U.S. History: WWII to Present                     | 9     |
| HSTR 272E                                                              | Terrorism: Violence in the Modern World           | 9     |
| HSTR 302H                                                              | Ancient Greece                                    | 9     |
| HSTR 364                                                               | Environmental History                             | 9     |

|                                                           |                                                              |
|-----------------------------------------------------------|--------------------------------------------------------------|
| NRSM 349E                                                 | Climate Change Ethics and Policy                             |
| PHL 112E                                                  | Intro Ethics and Environment                                 |
| PHL 422                                                   | Environmental Philosophy                                     |
| PSCI 250E                                                 | Intro to Political Theory                                    |
| SOCI 220S                                                 | Race, Gender & Class                                         |
| SOCI 325                                                  | Social Stratification                                        |
| SOCI 470                                                  | Environmental Sociology                                      |
| WGSS 163L                                                 | Historical and Literary Perspectives in Gender and Sexuality |
| WGSS 250                                                  | Media Representations of Women, Men, and Sexuality           |
| WGSS 263S                                                 | Social and Political Perspectives on Gender and Sexuality    |
| WGSS 363                                                  | Feminist and Queer Theories and Methods                      |
| <b>Additional Major Electives</b>                         |                                                              |
| Complete 6 additional COMX credits to achieve a total 36. |                                                              |
| <b>Total Hours</b>                                        |                                                              |
| <b>45</b>                                                 |                                                              |

## Communication Studies B.A. - Interpersonal and Family Communication

### General Degree Requirements

To earn a baccalaureate degree, all students must complete successfully, in addition to any other requirements, the University of Montana General Education Requirements. Please refer to the General Education Requirements page (p. 39) for more information.

Additional requirements for graduation can be found on the Degree/Certificate Requirements for Graduation page (p. 36).

Unless otherwise noted in individual program requirements, a minimum grade point average of 2.00 in all work attempted at the University of Montana-Missoula is required for graduation. Please see the Academic Policies and Procedures page (p. 25) for information on how your GPA is calculated.

Courses taken to satisfy the requirements of a major, minor, or certificate program must be completed with a grade of C- or better unless a higher grade is noted in the program requirements.

## Bachelor of Arts - Communication Studies; Interpersonal and Family Communication Concentration

- The Major in Communication Studies requires 36 credits in Communication Studies (COMX) with 18 of those credits in courses numbered 300 or above.
- For the Interpersonal and Family Communication concentration, students must complete an additional 9 credits in allied courses to reach a total of 45 credits.
- A maximum of 6 credits in COMX 312 and a maximum of 6 credits in COMX 398 may count toward the major.

## Course Requirements

| Code                                                                         | Title                                        | Hours |
|------------------------------------------------------------------------------|----------------------------------------------|-------|
| <b>Lower-Division Core Courses</b>                                           |                                              |       |
| Complete all of the following courses:                                       |                                              |       |
| COMX 111A                                                                    | Introduction to Public Speaking              | 3     |
| COMX 115S                                                                    | Introduction to Interpersonal Communication  | 3     |
| COMX 220S                                                                    | Introduction to Organizational Communication | 3     |
| COMX 240H                                                                    | Introduction to Rhetorical Theory            | 3     |
| <b>Upper-Division Core Courses - Research</b>                                |                                              |       |
| Complete one of the following courses:                                       |                                              |       |
| COMX 445                                                                     | Rhetorical Criticism and Theory              | 3     |
| COMX 460                                                                     | Research Methods                             | 3     |
| COMX 462                                                                     | Qualitative Research Methods                 | 3     |
| <b>Upper-Division Core Courses - Writing in the Disciplines</b>              |                                              |       |
| Complete one of the following courses:                                       |                                              |       |
| COMX 347                                                                     | Rhetoric, Nature, and Environmentalism       | 3     |
| COMX 414                                                                     | Communication in Personal Relationships      | 3     |
| COMX 421                                                                     | Communication in Nonprofit Organizations     | 3     |
| COMX 422                                                                     | Communication and Technology                 | 3     |
| COMX 445                                                                     | Rhetorical Criticism and Theory              | 3     |
| COMX 486                                                                     | Health and Family Communication              | 3     |
| <b>Interpersonal and Family Communication Concentration - Major Courses</b>  |                                              |       |
| Complete five of the following courses:                                      |                                              |       |
| COMX 202S                                                                    | Nonverbal Communication                      | 15    |
| COMX 311                                                                     | Family Communication                         | 3     |
| COMX 370                                                                     | Relationships and the Brain                  | 3     |
| COMX 380                                                                     | Gender and Communication                     | 3     |
| COMX 412                                                                     | Communication and Conflict                   | 3     |
| COMX 414                                                                     | Communication in Personal Relationships      | 3     |
| COMX 415                                                                     | Intercultural Communication                  | 3     |
| COMX 480                                                                     | Health Communication                         | 3     |
| COMX 485                                                                     | Social Interaction and Human Well-Being      | 3     |
| COMX 486                                                                     | Health and Family Communication              | 3     |
| <b>Interpersonal and Family Communication Concentration - Allied Courses</b> |                                              |       |
| Complete three of the following courses:                                     |                                              |       |
| ANTY 220S                                                                    | Culture & Society                            | 9     |
| COUN 242S                                                                    | Intimate Relationships                       | 3     |
| COUN 475                                                                     | Forgiveness & Reconciliation                 | 3     |
| HFD 494                                                                      | Seminar in Human Development                 | 3     |
| PSYX 100S                                                                    | Intro to Psychology                          | 3     |
| PSYX 230                                                                     | Developmental Psychology                     | 3     |
| PSYX 233                                                                     | Fundamentals of Psychology of Aging          | 3     |
| PSYX 330                                                                     | Child Development                            | 3     |
| PSYX 345                                                                     | Child & Adolescent Psych Disorders           | 3     |
| PSYX 348                                                                     | Trauma and Resilience                        | 3     |
| PSYX 360                                                                     | Social Psychology                            | 3     |
| PSYX 385                                                                     | Psychology of Personality                    | 3     |
| S W 420                                                                      | Child Abuse/Child Welfare                    | 3     |

|                                                              |                         |
|--------------------------------------------------------------|-------------------------|
| S W 455                                                      | Social Gerontology      |
| SOCI 220S                                                    | Race, Gender & Class    |
| SOCI 332                                                     | Sociology of the Family |
| <b>Additional Major Electives</b>                            |                         |
| Complete 3 additional COMX credits to achieve a total of 36. |                         |
| <b>Total Hours</b>                                           | <b>45</b>               |

## Communication Studies B.A. - Organizational and Strategic Communication

### General Degree Requirements

To earn a baccalaureate degree, all students must complete successfully, in addition to any other requirements, the University of Montana General Education Requirements. Please refer to the General Education Requirements page (p. 39) for more information.

Additional requirements for graduation can be found on the Degree/Certificate Requirements for Graduation page (p. 36).

Unless otherwise noted in individual program requirements, a minimum grade point average of 2.00 in all work attempted at the University of Montana-Missoula is required for graduation. Please see the Academic Policies and Procedures page (p. 25) for information on how your GPA is calculated.

Courses taken to satisfy the requirements of a major, minor, or certificate program must be completed with a grade of C- or better unless a higher grade is noted in the program requirements.

## Bachelor of Arts - Communication Studies; Organizational and Strategic Communication Concentration

- The major in Communication Studies requires 36 credits in Communication Studies (COMX) with 18 of those credits in courses numbered 300 or above.
- For the Organizational and Strategic Communication concentration, students must complete an additional 9 credits in allied courses to reach 45 credits.
- A maximum of 6 credits in COMX 312 and a maximum of 6 credits in COMX 398 may count toward the major.

### Course Requirements

| Code                                          | Title                                        | Hours |
|-----------------------------------------------|----------------------------------------------|-------|
| <b>Lower-Division Core Courses</b>            |                                              |       |
| Complete all of the following courses:        |                                              |       |
| COMX 111A                                     | Introduction to Public Speaking              | 3     |
| COMX 115S                                     | Introduction to Interpersonal Communication  | 3     |
| COMX 220S                                     | Introduction to Organizational Communication | 3     |
| COMX 240H                                     | Introduction to Rhetorical Theory            | 3     |
| <b>Upper-Division Core Courses - Research</b> |                                              |       |
| Complete one of the following courses:        |                                              |       |
| COMX 445                                      | Rhetorical Criticism and Theory              | 3     |

|                                                                                  |                                                    |           |
|----------------------------------------------------------------------------------|----------------------------------------------------|-----------|
| COMX 460                                                                         | Research Methods                                   |           |
| COMX 462                                                                         | Qualitative Research Methods                       |           |
| <b>Upper-Division Core Courses - Writing in the Disciplines</b>                  |                                                    |           |
| Complete one of the following courses:                                           |                                                    | 3         |
| COMX 347                                                                         | Rhetoric, Nature, and Environmentalism             |           |
| COMX 414                                                                         | Communication in Personal Relationships            |           |
| COMX 421                                                                         | Communication in Nonprofit Organizations           |           |
| COMX 422                                                                         | Communication and Technology                       |           |
| COMX 445                                                                         | Rhetorical Criticism and Theory                    |           |
| COMX 486                                                                         | Health and Family Communication                    |           |
| <b>Organizational and Strategic Communication Concentration - Major Courses</b>  |                                                    |           |
| Complete five of the following courses:                                          |                                                    | 15        |
| COMX 210                                                                         | Communication in Small Groups                      |           |
| COMX 351                                                                         | Principles of Public Relations                     |           |
| COMX 352                                                                         | Public Relations Portfolio                         |           |
| COMX 412                                                                         | Communication and Conflict                         |           |
| COMX 415                                                                         | Intercultural Communication                        |           |
| COMX 421                                                                         | Communication in Nonprofit Organizations           |           |
| COMX 422                                                                         | Communication and Technology                       |           |
| COMX 424                                                                         | Risk, Crisis, and Communication                    |           |
| COMX 425                                                                         | Communication in Health Organizations              |           |
| COMX 428                                                                         | Organizations and Identity                         |           |
| COMX 431                                                                         | New Media Skills                                   |           |
| COMX 480                                                                         | Health Communication                               |           |
| <b>Organizational and Strategic Communication Concentration - Allied Courses</b> |                                                    |           |
| Complete three of the following courses:                                         |                                                    | 9         |
| ANTY 220S                                                                        | Culture & Society                                  |           |
| ANTY 330X                                                                        | Peoples and Cultures of World                      |           |
| ANTY 423                                                                         | Culture and Identity                               |           |
| BMGT 301                                                                         | Entertainment & Sport Facility Management          |           |
| BMGT 329                                                                         | Human Resource Management                          |           |
| BMGT 410                                                                         | Sustainable Business Practices                     |           |
| BMKT 413                                                                         | Sports Marketing                                   |           |
| CHTH 355                                                                         | Health Promotion Practice I                        |           |
| JRNL 332                                                                         | Social Media and Audience                          |           |
| NPAD 367                                                                         | Leadership and Nonprofits                          |           |
| NPAD 467                                                                         | Advanced Nonprofit Admin                           |           |
| NPAD 466                                                                         | Practical Applications in Nonprofit Administration |           |
| SOCI 306                                                                         | Sociology of Work                                  |           |
| <b>Additional Major Electives</b>                                                |                                                    |           |
| Complete 3 additional COMX credits to achieve a total 36.                        |                                                    | 3         |
| <b>Total Hours</b>                                                               |                                                    | <b>45</b> |

## Communication Studies Minor

### General Degree Requirements

To earn a baccalaureate degree, all students must complete successfully, in addition to any other requirements, the University of Montana

General Education Requirements. Please refer to the General Education Requirements page (p. 39) for more information.

Additional requirements for graduation can be found on the Degree/Certificate Requirements for Graduation page (p. 36).

Unless otherwise noted in individual program requirements, a minimum grade point average of 2.00 in all work attempted at the University of Montana-Missoula is required for graduation. Please see the Academic Policies and Procedures page (p. 25) for information on how your GPA is calculated.

Courses taken to satisfy the requirements of a major, minor, or certificate program must be completed with a grade of C- or better unless a higher grade is noted in the program requirements.

## Online Program Option

This program may be completed in an online format (<https://catalog.umd.edu/online-programs/definitions/>). Students interested in pursuing an online degree or certificate program are strongly encouraged to contact the offering department to discuss specific program and course modalities (<https://catalog.umd.edu/online-programs/definitions/>) and create a plan of study with an academic advisor. The course requirements listed below may not be consistently offered via online delivery.

## Minor - Communication Studies

- The Minor in Communication Studies requires a minimum of 20 credits in Communication Studies (COMX) courses with at least 9 credits in courses numbered 300 and above.
- A maximum of 6 credits in COMX 312 may count toward the minor.

## Course Requirements

| Code                                                                                                    | Title                           | Hours     |
|---------------------------------------------------------------------------------------------------------|---------------------------------|-----------|
| <b>Core Course</b>                                                                                      |                                 |           |
| Complete the following course:                                                                          |                                 |           |
| COMX 111A                                                                                               | Introduction to Public Speaking | 3         |
| <b>Electives</b>                                                                                        |                                 |           |
| Complete 17 additional credits of COMX courses with at least 9 credits being at the 300-level or above. |                                 | 17        |
| <b>Total Hours</b>                                                                                      |                                 | <b>20</b> |

## Health Communication

### General Certificate Requirements

Additional requirements for graduation can be found on the Degree/Certificate Requirements for Graduation page (p. 36).

Unless otherwise noted in individual program requirements, a minimum grade point average of 2.00 in all work attempted at the University of Montana-Missoula is required for graduation. Please see the Academic Policies and Procedures page (p. 25) for information on how your GPA is calculated.

Courses taken to satisfy the requirements of a major, minor, or certificate program must be completed with a grade of C- or better unless a higher grade is noted in the program requirements.



## Post-Secondary Certificate - Health Communication

### Course Requirements

| Code                                   | Title                                        | Hours |
|----------------------------------------|----------------------------------------------|-------|
| Core Course                            |                                              |       |
| Complete the following course:         |                                              |       |
| COMX 480                               | Health Communication                         | 3     |
| Health Communication Electives         |                                              |       |
| Complete two of the following courses: |                                              |       |
| COMX 327                               | Health Misinformation                        | 6     |
| COMX 370                               | Relationships and the Brain                  |       |
| COMX 391                               | Special Topics (Approved sections)           |       |
| COMX 425                               | Communication in Health Organizations        |       |
| COMX 483                               | Communication for Social and Behavior Change |       |
| COMX 485                               | Social Interaction and Human Well-Being      |       |
| COMX 486                               | Health and Family Communication              | 3     |
| COMX 491                               | Special Topics (Approved sections)           |       |
| Approved Communication Skills Course   |                                              |       |
| Complete one of the following courses: |                                              |       |
| COMX 210                               | Communication in Small Groups                | 12    |
| COMX 242                               | Argumentation                                |       |
| COMX 291                               | Special Topics (Approved sections)           |       |
| COMX 351                               | Principles of Public Relations               |       |
| COMX 412                               | Communication and Conflict                   |       |
| COMX 414                               | Communication in Personal Relationships      |       |
| COMX 424                               | Risk, Crisis, and Communication              |       |
| Total Hours                            |                                              |       |

## Public Relations Certificate

The certificate in Public Relations develops participants' knowledge and skills related to strategic communication and prepares students for careers in public relations specialties.

Classes are offered in both traditional classroom and online formats. Courses will be scheduled online frequently enough to complete the requirements for the certificate over a two-year period online.

### General Certificate Requirements

Additional requirements for graduation can be found on the Degree/Certificate Requirements for Graduation page (p. 36).

Unless otherwise noted in individual program requirements, a minimum grade point average of 2.00 in all work attempted at the University of Montana-Missoula is required for graduation. Please see the Academic Policies and Procedures page (p. 25) for information on how your GPA is calculated.

Courses taken to satisfy the requirements of a major, minor, or certificate program must be completed with a grade of C- or better unless a higher grade is noted in the program requirements.

## Post-Secondary Certificate - Public Relations

### Course Requirements

| Code                                   | Title                               | Hours     |
|----------------------------------------|-------------------------------------|-----------|
| <b>Required Courses</b>                |                                     |           |
| Complete all of the following courses: |                                     |           |
| COMX 351                               | Principles of Public Relations      | 3         |
| JRNL 270                               | Reporting the News                  | 3         |
| <b>Electives</b>                       |                                     |           |
| Complete two of the following courses: |                                     |           |
| COMX 352                               | Public Relations Portfolio          | 6         |
| COMX 424                               | Risk, Crisis, and Communication     |           |
| COMX 431                               | New Media Skills                    |           |
| JRNL 140A                              | Intro Radio/Audio Storytelling      |           |
| JRNL 257A                              | Beginning Video and Photojournalism |           |
| JRNL 300                               | First Amendment and Media Law       |           |
| JRNL 332                               | Social Media and Audience           |           |
| JRNL 400                               | Ethics & Trends in News Media       |           |
| JRNL 433                               | Marketing Your Work                 |           |
| <b>Total Hours</b>                     |                                     | <b>12</b> |

## Democracy Studies

What is democracy's past, present, and future? The Minor in Democracy Studies equips students with the knowledge, methodological tools, and critical perspectives to tackle this pressing question as intellectuals and as engaged citizens of their community, region, nation, and world. An interdisciplinary minor, this program harnesses the expertise of faculty in several departments to focus student learning on the human experience with democratic governments and societies. Courses in core disciplines of the humanities and social sciences (History, Philosophy, and Political Science) anchor the program. Additional course offerings from other departments enhance and diversify the curriculum.

Students completing a minor in Democracy Studies learn that democracy has been and remains a capacious, contested concept that encompasses essential yet varied sectors of human experience. They gain an understanding of such classic political topics as voting and elections, political parties and lobbying, and constitutional adjudication and the structure of government. They also engage with an array of other subjects and problems that have defined and animated democratic polities (e.g. civil society and education, media and public opinion, corruption and scandal, dissent and disobedience, justice and equality, political economy and the distribution of wealth, leadership and organization, civil rights and civil liberties).

Students select from a series of foundational courses that ground them in the history, politics, and ethics of democracy. They then choose from a range of elective courses across varied disciplines to both broaden and deepen their understanding of the democratic experience and its challenges. As a capstone to the minor, students can complete an internship or conduct a research or civic engagement project guided by faculty.

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# Democracy Studies Minor

## General Degree Requirements

To earn a baccalaureate degree, all students must complete successfully, in addition to any other requirements, the University of Montana General Education Requirements. Please refer to the General Education Requirements page (p. 39) for more information.

Additional requirements for graduation can be found on the Degree/Certificate Requirements for Graduation page (p. 36).

Unless otherwise noted in individual program requirements, a minimum grade point average of 2.00 in all work attempted at the University of Montana-Missoula is required for graduation. Please see the Academic Policies and Procedures page (p. 25) for information on how your GPA is calculated.

Courses taken to satisfy the requirements of a major, minor, or certificate program must be completed with a grade of C- or better unless a higher grade is noted in the program requirements.

## Minor - Democracy Studies

### Course Requirements

- Students must complete at least 12 upper-division (300-level or above) credits.
- Special Topics courses taught at the 300- and 400-level (391 or 491) may count as upper-division area courses provided that they have a suitable content. Students should consult the department advisor and director of the Democracy Studies minor.
- The following credits requirements and limitations apply. Students must complete:
  - at least 6 credits in History (HSTA/HSTR), but no more than 9 credits.
  - at least 3 credits in Philosophy (PHL), but no more than 9 credits.
  - at least 6 credits in Political Science (PSCI), but no more than 9 credits.
  - no more than 6 credits in Business (BGEN/BMIS).
  - no more than 6 credits in Environmental Studies (ENST).
  - no more than 6 credits in Journalism (JRNL).
  - no more than 6 credits in Non-Profit Administration (NPAD).
  - no more than 3 credits in Public Health (PUBH).
  - no more than 6 credits in Sociology (SOCI).

| Code                                                                                        | Title                                     | Hours |
|---------------------------------------------------------------------------------------------|-------------------------------------------|-------|
| <b>Foundational Courses</b>                                                                 |                                           |       |
| Complete 6 credits of the following courses. Each course must be in a different discipline. |                                           | 6     |
| HONR 394                                                                                    | Honors Seminar (Democracy)                |       |
| HSTA 201E                                                                                   | History of American Democracy             |       |
| HSTR 351                                                                                    | Democracy: Ancient to Modern              |       |
| PHL 114E                                                                                    | Intro to Political Ethics                 |       |
| PSCI 210S                                                                                   | Intro to American Government              |       |
| PSCI 220S                                                                                   | Intro to Comparative Government           |       |
| PSCI 250E                                                                                   | Intro to Political Theory                 |       |
| <b>Electives</b>                                                                            |                                           |       |
| Complete 15 credits of the following courses:                                               |                                           | 15    |
| BGEN 220E                                                                                   | Business Ethics and Social Responsibility |       |

|           |                                                         |
|-----------|---------------------------------------------------------|
| BMIS 270  | MIS Foundations for Business                            |
| ENST 225S | Sustainable Communities                                 |
| ENST 367  | Environmental Politics & Policies                       |
| ENST 420  | US Environmental Movement                               |
| ENST 476  | Community Sustainability in Practice                    |
| ENST 480  | Food Justice and Sustainability                         |
| HSTA 201E | History of American Democracy                           |
| HSTA 275  | Making History Public                                   |
| HSTA 307Y | The American Revolution and Founding Era                |
| HSTA 315  | Early American Republic                                 |
| HSTA 321  | America in Crisis                                       |
| HSTA 344  | African-American Struggle for Equality                  |
| HSTA 370H | Women in America: Colonial Period to Civil War          |
| HSTA 371H | Women in America: From the Civil War to the Present     |
| HSTA 380  | American Constitutional History                         |
| HSTA 382  | History of American Law                                 |
| HSTA 405  | Public Problems & United States Democracy               |
| HSTA 415  | The Black Radical Tradition                             |
| HSTA 427  | Freedom, Slavery, Equality: Early American Perspectives |
| HSTR 338  | The History of Democracy in Latin America               |
| HSTR 351  | Democracy: Ancient to Modern                            |
| HSTR 398  | Public History Internship                               |
| JRNL 100H | Journalism and American Society                         |
| JRNL 102Y | Calling Bullshit                                        |
| JRNL 300  | First Amendment and Media Law                           |
| JRNL 301X | Diversity in Media                                      |
| NASX 475  | Tribal Sovereignty                                      |
| NASX 479  | Tribal Governance and Policymaking                      |
| NPAD 166Y | Introduction to Public Service                          |
| NPAD 367  | Leadership and Nonprofits                               |
| NPAD 368  | Policy Process and Implementation                       |
| NPAD 466  | Practical Applications in Nonprofit Administration      |
| NPAD 467  | Advanced Nonprofit Admin                                |
| NRSM 379  | Collaborations in Natural Resource Decisions            |
| NRSM 422  | Natural Resources Policy                                |
| PHL 114E  | Intro to Political Ethics                               |
| PHL 262Y  | History of Modern Philosophy                            |
| PHL 317E  | Law and Morality                                        |
| PHL 319E  | Law and Discrimination                                  |
| PHL 451   | Justice                                                 |
| PHL 469   | Rousseau                                                |
| PSCI 210S | Intro to American Government                            |
| PSCI 220S | Intro to Comparative Government                         |
| PSCI 250E | Intro to Political Theory                               |
| PSCI 342  | Media, Public Opinion, Polling                          |
| PSCI 344  | State and Local Government                              |
| PSCI 345  | American Political System                               |

|                    |                                           |           |
|--------------------|-------------------------------------------|-----------|
| PSCI 346           | American Presidency                       |           |
| PSCI 348           | US Multicultural Politics                 |           |
| PSCI 349           | Montana Government and Politics           |           |
| PSCI 352Y          | American Political Thought                |           |
| PSCI 365           | Public Policy Issues and Analysis         |           |
| PSCI 398           | Internship                                |           |
| PSCI 443           | Politics of Social Movements              |           |
| PSCI 444           | American Political Participation          |           |
| PSCI 453           | Modern Political Theory                   |           |
| PSCI 474           | Civil Rights                              |           |
| PSCI 481           | Origins of Democracy and Authoritarianism |           |
| PUBH 225           | Public Health Policy                      |           |
| SOCI 220S          | Race, Gender & Class                      |           |
| SOCI 422           | Sociology of Punishment                   |           |
| <b>Total Hours</b> |                                           | <b>21</b> |

## East Asian Studies

The East Asian Studies major positions students to pursue graduate work in East Asian Studies as well as careers in academia, government, education, business, law, and any other discipline in which East Asian countries are key global players.

The program builds on a long history of institutional commitment to East Asia. Ambassador Mike Mansfield first taught Far Eastern History at the University of Montana from 1934-1942. UM has the strongest Japanese language program in the Northern Rockies and has a 30-year history in teaching Mandarin Chinese. UM also maintains many exchange, research, and study abroad programs, including programs in education, law, business, and journalism.

The East Asian Studies major provides UM students with a broad understanding of the major cultures of this dynamic region and gives students the freedom to tailor their studies to focus on China or Japan. The major requires a spread of courses to ensure that students receive training in the traditional cultures of the East Asian region, which represent major contributions to the world's philosophical and artistic systems. Students are able to choose from a variety of contemporary political, economic, and cultural courses to suit their goals.

To learn more about the East Asian Studies major, contact the Director of the Mansfield Center, Deena Mansour (deena.mansour@umontana.edu).

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## East Asian Studies B.A.

### General Degree Requirements

To earn a baccalaureate degree, all students must complete successfully, in addition to any other requirements, the University of Montana General Education Requirements. Please refer to the General Education Requirements page (p. 39) for more information.

Additional requirements for graduation can be found on the Degree/Certificate Requirements for Graduation page (p. 36).

Unless otherwise noted in individual program requirements, a minimum grade point average of 2.00 in all work attempted at the University of Montana-Missoula is required for graduation. Please see the Academic

Policies and Procedures page (p. 25) for information on how your GPA is calculated.

Courses taken to satisfy the requirements of a major, minor, or certificate program must be completed with a grade of C- or better unless a higher grade is noted in the program requirements.

## Bachelor of Arts - East Asian Studies

### Course Requirements

| Code                                                                                                                                                     | Title                                 | Hours     |
|----------------------------------------------------------------------------------------------------------------------------------------------------------|---------------------------------------|-----------|
| <b>Lower-Division Core Courses</b>                                                                                                                       |                                       |           |
| Complete the following course:                                                                                                                           |                                       |           |
| HSTR 240H                                                                                                                                                | East Asian Civilizations <sup>1</sup> | 3         |
| Complete one of the following courses:                                                                                                                   |                                       |           |
| CHIN 211                                                                                                                                                 | Chinese Culture and Civiliz           |           |
| JPNS 150H                                                                                                                                                | Japanese Culture & Civilization       |           |
| <b>Upper-Division Core Courses</b>                                                                                                                       |                                       |           |
| Complete 2 courses in Chinese studies. See your advisor for courses that will complete this requirement.                                                 |                                       |           |
| Complete 2 courses in Japanese studies. See your advisor for courses that will complete this requirement.                                                |                                       |           |
| Complete 2 courses in Japanese, Chinese, Viet Nam, pan-East Asia, or Buddhism studies. See your advisor for courses that will complete this requirement. |                                       |           |
| <b>Language Requirement</b>                                                                                                                              |                                       |           |
| Complete one of the following language sequences.                                                                                                        |                                       |           |
| Chinese                                                                                                                                                  |                                       |           |
| CHIN 101                                                                                                                                                 | Elementary Chinese I                  |           |
| CHIN 102                                                                                                                                                 | Elementary Chinese II                 |           |
| CHIN 201                                                                                                                                                 | Intermediate Chinese I                |           |
| CHIN 202                                                                                                                                                 | Intermediate Chinese II               |           |
| Japanese                                                                                                                                                 |                                       |           |
| JPNS 101                                                                                                                                                 | Elementary Japanese I                 |           |
| JPNS 102                                                                                                                                                 | Elementary Japanese II                |           |
| JPNS 201                                                                                                                                                 | Intermediate Japanese I               |           |
| JPNS 202                                                                                                                                                 | Intermediate Japanese II              |           |
| <b>Total Hours</b>                                                                                                                                       |                                       | <b>44</b> |

- <sup>1</sup> On occasion the World Languages and Cultures department offers an alternative introductory course that could also fulfill this requirement. Check with an advisor or the program director for available options.

## Four Year Plan

| Course                        | Title                                              | Hours     |
|-------------------------------|----------------------------------------------------|-----------|
| <b>Freshman</b>               |                                                    |           |
| <b>Autumn</b>                 |                                                    |           |
| JPNS 101<br>or CHIN 101       | Elementary Japanese I<br>or Elementary Chinese I   | 5         |
| WRIT 101                      | College Writing I                                  | 4         |
| Math Requirement              |                                                    | 3         |
| General Education Requirement |                                                    | 3         |
| HUSC 194                      | Seminar/Workshop                                   | 1         |
| <b>Hours</b>                  |                                                    | <b>16</b> |
| <b>Spring</b>                 |                                                    |           |
| JPNS 102<br>or CHIN 102       | Elementary Japanese II<br>or Elementary Chinese II | 5         |

|                                     |                                                                                       |            |
|-------------------------------------|---------------------------------------------------------------------------------------|------------|
| JPNS 150H<br>or CHIN 211            | Japanese Culture & Civilization (when offered)<br>or Chinese Culture and Civilization | 3          |
| General Education Requirements      |                                                                                       | 6          |
| Activity                            |                                                                                       | 1          |
| <b>Hours</b>                        |                                                                                       | <b>15</b>  |
| <b>Sophomore</b>                    |                                                                                       |            |
| <b>Autumn</b>                       |                                                                                       |            |
| JPNS 201<br>or CHIN 201             | Intermediate Japanese I<br>or Intermediate Chinese I                                  | 5          |
| Intermediate Writing Requirement    |                                                                                       | 3          |
| Upper Division Elective             |                                                                                       | 3          |
| General Education Requirement       |                                                                                       | 3          |
| HSTR 240H                           | East Asian Civilizations                                                              | 3          |
| <b>Hours</b>                        |                                                                                       | <b>17</b>  |
| <b>Spring</b>                       |                                                                                       |            |
| JPNS 202<br>or CHIN 202             | Intermediate Japanese II<br>or Intermediate Chinese II                                | 5          |
| CHIN 211<br>or JPNS 150H            | Chinese Culture and Civilization (when offered)<br>or Japanese Culture & Civilization | 3          |
| Advanced Writing Requirement        |                                                                                       | 3          |
| General Education Requirement       |                                                                                       | 6          |
| <b>Hours</b>                        |                                                                                       | <b>17</b>  |
| <b>Junior</b>                       |                                                                                       |            |
| <b>Autumn</b>                       |                                                                                       |            |
| JPNS 301<br>or CHIN 301             | Advanced Japanese<br>or Advanced Chinese I                                            | 3          |
| Upper Division Elective             |                                                                                       | 6          |
| General Education Requirement       |                                                                                       | 6          |
| JPNS 150H or CHIN 211 when offered  |                                                                                       | 3          |
| <b>Hours</b>                        |                                                                                       | <b>18</b>  |
| <b>Spring</b>                       |                                                                                       |            |
| JPNS 302                            | Advanced Japanese                                                                     | 3          |
| Upper Division Elective             |                                                                                       | 6          |
| General Education Requirement       |                                                                                       | 6          |
| <b>Hours</b>                        |                                                                                       | <b>15</b>  |
| <b>Senior</b>                       |                                                                                       |            |
| <b>Autumn</b>                       |                                                                                       |            |
| JPNS 411                            | Modern Japanese Writers and Thinkers                                                  | 3          |
| Japanese or Chinese Degree Elective |                                                                                       | 3          |
| Upper Division Elective             |                                                                                       | 6          |
| General Education Requirement       |                                                                                       | 3          |
| <b>Hours</b>                        |                                                                                       | <b>15</b>  |
| <b>Spring</b>                       |                                                                                       |            |
| JPNS 412<br>or JPNS 415             | Introduction to Classical Japanese<br>or Advanced Japanese for Professionals          | 3          |
| Japanese or Chinese Degree Elective |                                                                                       | 3          |
| Upper Division Requirement          |                                                                                       | 6          |
| General Education Requirement       |                                                                                       | 3          |
| <b>Hours</b>                        |                                                                                       | <b>15</b>  |
| <b>Total Hours</b>                  |                                                                                       | <b>128</b> |

*Last updated Autumn 2024*

## Economics

The Department of Economics considers its teaching goals to be threefold:

1. To present students with the basic theoretical tools of economic analysis, relevant facts, and institutional material, which will assist them as civic leaders.
2. To introduce students majoring in economics to the various special fields of study within economics. This training, along with extensive

work in the other liberal arts and sciences, is intended to instill breadth of intellectual interest, critical habits of thought, a problem-solving attitude, and facility of expression.

3. To help meet, through graduate work, the increasing demands for competent professional economists in industry, commerce, government and education.

Courses cover general economic theory, environmental economics, monetary theory, international economics, public finance, labor economics, economic development, comparative economic systems, econometrics, and industrial organization.

Students major in economics leading to a Bachelor of Arts degree.

- Economics B.A. (p. 219)
- Economics B.A. - Economics Education (p. 220)
- Economics Minor (p. 221)
- Economics Education Minor (p. 222)

## Economics B.A. General Degree Requirements

To earn a baccalaureate degree, all students must complete successfully, in addition to any other requirements, the University of Montana General Education Requirements. Please refer to the General Education Requirements page (p. 39) for more information.

Additional requirements for graduation can be found on the Degree/Certificate Requirements for Graduation page (p. 36).

Unless otherwise noted in individual program requirements, a minimum grade point average of 2.00 in all work attempted at the University of Montana-Missoula is required for graduation. Please see the Academic Policies and Procedures page (p. 25) for information on how your GPA is calculated.

Courses taken to satisfy the requirements of a major, minor, or certificate program must be completed with a grade of C- or better unless a higher grade is noted in the program requirements.

## Bachelor of Arts - Economics Course Requirements

| Code                                   | Title                                     | Hours |
|----------------------------------------|-------------------------------------------|-------|
| <b>Lower-Division Core</b>             |                                           |       |
| Complete all of the following courses: |                                           |       |
| ECNS 201S                              | Principles of Microeconomics              | 3     |
| ECNS 202S                              | Principles of Macroeconomics              | 3     |
| <b>Upper-Division Core</b>             |                                           |       |
| Complete all of the following courses: |                                           |       |
| ECNS 301                               | Intermediate Microeconomics with Calculus | 3     |
| ECNS 302                               | Intermediate Macroeconomics               | 3     |
| ECNS 403                               | Introduction to Econometrics              | 4     |
| ECNS 481                               | Communicating Economics <sup>1</sup>      | 3     |

### Non-Economics Required Courses

|                                               |                                                        |           |
|-----------------------------------------------|--------------------------------------------------------|-----------|
| Complete all of the following courses:        |                                                        |           |
| M 171                                         | Calculus I <sup>2</sup>                                | 4         |
| or M 162                                      | Applied Calculus                                       |           |
| STAT 216                                      | Introduction to Statistics                             | 4         |
| <b>Electives <sup>3</sup></b>                 |                                                        |           |
| Complete 17 credits of the following courses: |                                                        | 17        |
| ECNS 312                                      | Labor Economics                                        |           |
| ECNS 313                                      | Money and Banking                                      |           |
| ECNS 320                                      | Public Finance                                         |           |
| ECNS 325                                      | Economics of Sports                                    |           |
| ECNS 391                                      | Special Topics                                         |           |
| ECNS 405                                      | Game Theory                                            |           |
| ECNS 406                                      | Industrial Organization                                |           |
| ECNS 431                                      | International Trade                                    |           |
| ECNS 433                                      | Economics of the Environment                           |           |
| ECNS 445                                      | International Environmental Economics & Climate Change |           |
| ECNS 450                                      | Economics of Global Development                        |           |
| ECNS 451                                      | Behavioral and Experimental Economics                  |           |
| ECNS 491                                      | Special Topics                                         |           |
| ECNS 494                                      | Senior Seminar                                         |           |
| FORS 320                                      | Forest Environmental Economics                         |           |
| GPHY 323S                                     | Economic Geography of Rural Areas                      |           |
| PSCI 365                                      | Public Policy Issues and Analysis                      |           |
| <b>Total Hours</b>                            |                                                        | <b>44</b> |

<sup>1</sup> The advanced writing requirement must be met by successfully completing ECNS 481 (<https://catalog.umd.edu/search/?P=ECNS%20481>).

<sup>2</sup> Students planning graduate study in economics should take M 171 (<https://catalog.umd.edu/search/?P=M%20171>) and M 172 (<https://catalog.umd.edu/search/?P=M%20172>) and consider M 221 (<https://catalog.umd.edu/search/?P=M%20221>) and M 307 (<https://catalog.umd.edu/search/?P=M%20307>) as well as ECNS 511 (<https://catalog.umd.edu/search/?P=ECNS%20511>), ECNS 513 (<https://catalog.umd.edu/search/?P=ECNS%20513>) and ECNS 560 (<https://catalog.umd.edu/search/?P=ECNS%20560>).

<sup>3</sup> ECNS 398 (<https://catalog.umd.edu/search/?P=ECNS%20398>) does NOT count toward the total required credits for the major.

Four Year Plan

| Course                        | Title                                           | Hours     |
|-------------------------------|-------------------------------------------------|-----------|
| <b>Freshman</b>               |                                                 |           |
| <b>Autumn</b>                 |                                                 |           |
| M 115                         | Probability and Linear Mathematics <sup>1</sup> | 4         |
| WRIT 101                      | College Writing I                               | 4         |
| Foreign Language 101          |                                                 | 4         |
| ECNS 201S                     | Principles of Microeconomics                    | 3         |
| HUSC 194                      | Seminar/Workshop                                | 1         |
| <b>Hours</b>                  |                                                 | <b>16</b> |
| <b>Spring</b>                 |                                                 |           |
| STAT 216                      | Introduction to Statistics                      | 4         |
| Foreign Language 102          |                                                 | 4         |
| ECNS 202S                     | Principles of Macroeconomics                    | 3         |
| General Education Requirement |                                                 | 3         |
| <b>Hours</b>                  |                                                 | <b>14</b> |

|                                 |                                                                    |            |
|---------------------------------|--------------------------------------------------------------------|------------|
| <b>Sophomore</b>                |                                                                    |            |
| <b>Autumn</b>                   |                                                                    |            |
| M 162                           | Applied Calculus <sup>2</sup>                                      | 4          |
| or M 171                        | or Calculus I                                                      |            |
| ECNS 300+ Elective <sup>3</sup> |                                                                    | 3          |
| General Education Requirement   |                                                                    | 9          |
| <b>Hours</b>                    |                                                                    | <b>16</b>  |
| <b>Spring</b>                   |                                                                    |            |
| ECNS 300+ Elective <sup>3</sup> |                                                                    | 3          |
| Intermediate Writing            |                                                                    | 3          |
| General Education Requirement   |                                                                    | 9          |
| <b>Hours</b>                    |                                                                    | <b>15</b>  |
| <b>Junior</b>                   |                                                                    |            |
| <b>Autumn</b>                   |                                                                    |            |
| ECNS 301                        | Intermediate Microeconomics with Calculus (Fall only) <sup>4</sup> | 3          |
| ECNS 300+ Elective <sup>3</sup> |                                                                    | 3          |
| General Education Requirement   |                                                                    | 3          |
| Elective                        |                                                                    | 6          |
| <b>Hours</b>                    |                                                                    | <b>15</b>  |
| <b>Spring</b>                   |                                                                    |            |
| ECNS 302                        | Intermediate Macroeconomics                                        | 3          |
| ECNS 300+ Elective <sup>3</sup> |                                                                    | 6          |
| Elective                        |                                                                    | 6          |
| <b>Hours</b>                    |                                                                    | <b>15</b>  |
| <b>Senior</b>                   |                                                                    |            |
| <b>Autumn</b>                   |                                                                    |            |
| ECNS 403                        | Introduction to Econometrics (Fall only) <sup>5</sup>              | 4          |
| ECNS 300+ Elective <sup>3</sup> |                                                                    | 3          |
| Elective 300+                   |                                                                    | 3          |
| Elective                        |                                                                    | 6          |
| <b>Hours</b>                    |                                                                    | <b>16</b>  |
| <b>Spring</b>                   |                                                                    |            |
| ECNS 481                        | Communicating Economics (Spring only, Advanced Writing)            | 3          |
| Elective 300+                   |                                                                    | 6          |
| Elective                        |                                                                    | 6          |
| <b>Hours</b>                    |                                                                    | <b>15</b>  |
| <b>Total Hours</b>              |                                                                    | <b>122</b> |

<sup>1</sup> Most students begin with M 115, but some students only need Calculus and Stats. Some students may need to take additional or remedial math courses to prepare for M 115, M 162, or M 171.

<sup>2</sup> M 162 or M 171 complete this requirement, but students who are advanced in math or plan to pursue a Masters in Economics should take M 171 and M 172.

<sup>3</sup> GPHY 323S, PSCI 336, PSCI 365, PSCI 431, FORS 320, M 221, and M 307 can count towards the Economics Elective requirement

<sup>4</sup> M 162 or M 171 must be taken before ECNS 301. Students who have completed Calculus before Year 2 are allowed to take ECNS 301 in Fall Year 2.

<sup>5</sup> STAT 216 must be taken before ECNS 403

Last updated Autumn 2024

Economics B.A. - Economics Education

• This major concentration contains course requirements designed to meet state standards. Those interested in teaching in K-12 schools must complete the education/teaching concentration of a major in a



teaching content area plus the Teacher Education Program through the Department of Teaching and Learning. Additional teaching areas can be added through completion of the education/teaching concentration of a major or education/teaching minor in that content area.

- Secondary Education Licensure Program (<https://www.umt.edu/education/departments/teaching-and-learning/tep/default.php>)
- Licensure Degree Requirements (p. 151)
- To complete this concentration, you need to contact the Teaching and Learning Department. Approvals for this track must come from the Teaching and Learning Department.
- This major does not qualify as a single field endorsement. Individuals must complete the education/teaching concentration in a second major or education/teaching minor in another content area.

## General Degree Requirements

To earn a baccalaureate degree, all students must complete successfully, in addition to any other requirements, the University of Montana General Education Requirements. Please refer to the General Education Requirements page (p. 39) for more information.

Additional requirements for graduation can be found on the Degree/Certificate Requirements for Graduation page (p. 36).

Unless otherwise noted in individual program requirements, a minimum grade point average of 2.00 in all work attempted at the University of Montana-Missoula is required for graduation. Please see the Academic Policies and Procedures page (p. 25) for information on how your GPA is calculated.

Courses taken to satisfy the requirements of a major, minor, or certificate program must be completed with a grade of C- or better unless a higher grade is noted in the program requirements.

## Bachelor of Arts - Economics; Economics Education Concentration

### Course Requirements

| Code                                          | Title                                     | Hours |
|-----------------------------------------------|-------------------------------------------|-------|
| <b>Lower-Division Core</b>                    |                                           |       |
| Complete all of the following courses:        |                                           |       |
| ECNS 201S                                     | Principles of Microeconomics              | 3     |
| ECNS 202S                                     | Principles of Macroeconomics              | 3     |
| <b>Upper-Division Core</b>                    |                                           |       |
| Complete all of the following courses:        |                                           |       |
| ECNS 301                                      | Intermediate Microeconomics with Calculus | 3     |
| ECNS 302                                      | Intermediate Macroeconomics               | 3     |
| ECNS 403                                      | Introduction to Econometrics              | 4     |
| ECNS 481                                      | Communicating Economics <sup>1</sup>      | 3     |
| <b>Non-Economics Required Courses</b>         |                                           |       |
| Complete all of the following courses:        |                                           |       |
| M 171                                         | Calculus I <sup>2</sup>                   | 4     |
| or M 162                                      | Applied Calculus                          |       |
| STAT 216                                      | Introduction to Statistics                | 4     |
| <b>Electives <sup>3</sup></b>                 |                                           |       |
| Complete 17 credits of the following courses: |                                           | 17    |
| ECNS 312                                      | Labor Economics                           |       |

|           |                                                          |
|-----------|----------------------------------------------------------|
| ECNS 313  | Money and Banking                                        |
| ECNS 320  | Public Finance                                           |
| ECNS 325  | Economics of Sports                                      |
| ECNS 391  | Special Topics                                           |
| ECNS 405  | Game Theory                                              |
| ECNS 406  | Industrial Organization                                  |
| ECNS 431  | International Trade                                      |
| ECNS 433  | Economics of the Environment                             |
| ECNS 445  | Introduction to Environmental Economics & Climate Change |
| ECNS 450  | Economics of Global Development                          |
| ECNS 451  | Behavioral and Experimental Economics                    |
| ECNS 491  | Special Topics                                           |
| ECNS 494  | Senior Seminar                                           |
| FORS 320  | Forest Environmental Economics                           |
| GPHY 323S | Economic Geography of Rural Areas                        |
| PSCI 365  | Public Policy Issues and Analysis                        |

### Education Course

Complete the following course:

|         |                                                       |   |
|---------|-------------------------------------------------------|---|
| EDU 497 | Teaching and Assessing (Methods: 5-12 Social Studies) | 3 |
|---------|-------------------------------------------------------|---|

### Total Hours

47

<sup>1</sup> The advanced writing requirement must be met by successfully completing ECNS 481 (<https://catalog.umt.edu/search/?P=ECNS%20481>).

<sup>2</sup> Students planning graduate study in economics should take M 171 (<https://catalog.umt.edu/search/?P=M%20171>) and M 172 (<https://catalog.umt.edu/search/?P=M%20172>) and consider M 221 (<https://catalog.umt.edu/search/?P=M%20221>) and M 307 (<https://catalog.umt.edu/search/?P=M%20307>) as well as ECNS 511 (<https://catalog.umt.edu/search/?P=ECNS%20511>), ECNS 513 (<https://catalog.umt.edu/search/?P=ECNS%20513>) and ECNS 560 (<https://catalog.umt.edu/search/?P=ECNS%20560>).

<sup>3</sup> ECNS 398 (<https://catalog.umt.edu/search/?P=ECNS%20398>) does NOT count toward the total required credits for the major.

## Secondary Teaching Licensure

For endorsement to teach this subject, a student also must gain admission to the Teacher Education Program and meet all the requirements for secondary teaching licensure (p. 151). For more information, see the Teaching and Learning Department webpage (<https://www.umt.edu/education/departments/currinst/default.php>).

## Economics Minor

### General Degree Requirements

To earn a baccalaureate degree, all students must complete successfully, in addition to any other requirements, the University of Montana General Education Requirements. Please refer to the General Education Requirements page (p. 39) for more information.

Additional requirements for graduation can be found on the Degree/Certificate Requirements for Graduation page (p. 36).

Unless otherwise noted in individual program requirements, a minimum grade point average of 2.00 in all work attempted at the University of

Montana-Missoula is required for graduation. Please see the Academic Policies and Procedures page (p. 25) for information on how your GPA is calculated.

Courses taken to satisfy the requirements of a major, minor, or certificate program must be completed with a grade of C- or better unless a higher grade is noted in the program requirements.

## Minor - Economics

### Course Requirements

| Code                                         | Title                                                  | Hours     |
|----------------------------------------------|--------------------------------------------------------|-----------|
| <b>Lower-Division Core</b>                   |                                                        |           |
| Complete all of the following courses:       |                                                        |           |
| ECNS 201S                                    | Principles of Microeconomics                           | 3         |
| ECNS 202S                                    | Principles of Macroeconomics                           | 3         |
| M 162                                        | Applied Calculus                                       | 4         |
| <b>Upper-Division Core</b>                   |                                                        |           |
| ECNS 301                                     | Intermediate Microeconomics with Calculus <sup>1</sup> | 3         |
| ECNS 302                                     | Intermediate Macroeconomics                            | 3         |
| <b>Upper-Division Electives</b>              |                                                        |           |
| Complete 6 credits of the following courses: |                                                        | 6         |
| ECNS 312                                     | Labor Economics                                        |           |
| ECNS 313                                     | Money and Banking                                      |           |
| ECNS 320                                     | Public Finance                                         |           |
| ECNS 325                                     | Economics of Sports                                    |           |
| ECNS 391                                     | Special Topics                                         |           |
| ECNS 403                                     | Introduction to Econometrics <sup>2</sup>              |           |
| ECNS 405                                     | Game Theory                                            |           |
| ECNS 406                                     | Industrial Organization                                |           |
| ECNS 431                                     | International Trade                                    |           |
| ECNS 433                                     | Economics of the Environment                           |           |
| ECNS 445                                     | International Environmental Economics & Climate Change |           |
| ECNS 450                                     | Economics of Global Development                        |           |
| ECNS 451                                     | Behavioral and Experimental Economics                  |           |
| ECNS 491                                     | Special Topics                                         |           |
| <b>Total Hours</b>                           |                                                        | <b>22</b> |

<sup>1</sup> M 115 (<https://catalog.umn.edu/search/?P=M%20115>) and M 162 (<https://catalog.umn.edu/search/?P=M%20162>) should be taken before enrolling in ECNS 301 (<https://catalog.umn.edu/search/?P=ECNS%20301>).

<sup>2</sup> Students are required to complete STAT 216 (<https://catalog.umn.edu/search/?P=STAT%20216>) (or equivalent) with a C- or better before enrolling in ECNS 403 (<https://catalog.umn.edu/search/?P=ECNS%20403>).

## Economics Education Minor

- This minor contains course requirements designed to meet state standards. Those interested in teaching in K-12 schools must complete the education/teaching concentration of a major in a teaching content area plus the Teacher Education Program through the Department of Teaching and Learning. Additional teaching areas can be added through completion of the education/teaching

concentration of a major or education/teaching minor in that content area.

- Secondary Education Licensure Program (<https://www.umn.edu/education/departments/teaching-and-learning/tep/default.php>)
- Licensure Degree Requirements (p. 151)
- To complete this concentration, you need to contact the Teaching and Learning Department. Approvals for this track must come from the Teaching and Learning Department.
- Individuals completing this minor must also complete the education/teaching concentration of a major in another teaching content area.

## General Degree Requirements

To earn a baccalaureate degree, all students must complete successfully, in addition to any other requirements, the University of Montana General Education Requirements. Please refer to the General Education Requirements page (p. 39) for more information.

Additional requirements for graduation can be found on the Degree/Certificate Requirements for Graduation page (p. 36).

Unless otherwise noted in individual program requirements, a minimum grade point average of 2.00 in all work attempted at the University of Montana-Missoula is required for graduation. Please see the Academic Policies and Procedures page (p. 25) for information on how your GPA is calculated.

Courses taken to satisfy the requirements of a major, minor, or certificate program must be completed with a grade of C- or better unless a higher grade is noted in the program requirements.

## Minor - Economics Education

### Course Requirements

| Code                                         | Title                                                    | Hours |
|----------------------------------------------|----------------------------------------------------------|-------|
| <b>Lower-Division Core</b>                   |                                                          |       |
| Complete all of the following courses:       |                                                          |       |
| ECNS 201S                                    | Principles of Microeconomics                             | 3     |
| ECNS 202S                                    | Principles of Macroeconomics                             | 3     |
| M 162                                        | Applied Calculus                                         | 4     |
| <b>Upper-Division Core</b>                   |                                                          |       |
| ECNS 301                                     | Intermediate Microeconomics with Calculus <sup>1</sup>   | 3     |
| ECNS 302                                     | Intermediate Macroeconomics                              | 3     |
| <b>Upper-Division Electives</b>              |                                                          |       |
| Complete 6 credits of the following courses: |                                                          | 6     |
| ECNS 312                                     | Labor Economics                                          |       |
| ECNS 313                                     | Money and Banking                                        |       |
| ECNS 320                                     | Public Finance                                           |       |
| ECNS 325                                     | Economics of Sports                                      |       |
| ECNS 391                                     | Special Topics                                           |       |
| ECNS 403                                     | Introduction to Econometrics <sup>2</sup>                |       |
| ECNS 405                                     | Game Theory                                              |       |
| ECNS 406                                     | Industrial Organization                                  |       |
| ECNS 431                                     | International Trade                                      |       |
| ECNS 433                                     | Economics of the Environment                             |       |
| ECNS 445                                     | Introduction to Environmental Economics & Climate Change |       |

|                                |                                                       |           |
|--------------------------------|-------------------------------------------------------|-----------|
| ECNS 450                       | Economics of Global Development                       |           |
| ECNS 451                       | Behavioral and Experimental Economics                 |           |
| ECNS 491                       | Special Topics                                        |           |
| <b>Education Course</b>        |                                                       |           |
| Complete the following course: |                                                       |           |
| EDU 497                        | Teaching and Assessing (Methods: 5-12 Social Studies) | 3         |
| <b>Total Hours</b>             |                                                       | <b>25</b> |

<sup>1</sup> M 115 (<https://catalog.umd.edu/search/?P=M%20115>) and M 162 (<https://catalog.umd.edu/search/?P=M%20162>) should be taken before enrolling in ECNS 301 (<https://catalog.umd.edu/search/?P=ECNS%20301>).

<sup>2</sup> Students are required to complete STAT 216 (<https://catalog.umd.edu/search/?P=STAT%20216>) (or equivalent) with a C- or better before enrolling in ECNS 403 (<https://catalog.umd.edu/search/?P=ECNS%20403>).

## Secondary Teaching Licensure

For endorsement to teach this subject, a student also must gain admission to the Teacher Education Program and meet all the requirements for secondary teaching licensure (p. 151). For more information, see the Teaching and Learning Department webpage (<https://www.umd.edu/education/departments/currinst/default.php>).

## English

More than a century old, the Department of English is among the oldest and most prestigious units at the University. As one of the campus's original departments, it offered some of the University's inaugural courses, including literature classes taught by UM's first president, Oscar J. Craig. In 1919, Rhodes Scholar H.G. Merriam inaugurated one of the first creative writing programs in the country. Two recent Pulitzer Prize Winners - William Finnegan and Andrew Sean Greer - received their M.F.A.'s from the department.

Our Composition program serves the entire University by offering the first-year composition requirement WRIT 101 as well as courses in advanced composition and graduate seminars in the teaching of writing.

- Creative Writing B.F.A. (p. 223)
- English B.A. - Creative Writing (p. 225)
- English B.A. - Literature (p. 226)
- English B.A. - Teaching English (p. 228)
- English Minor (p. 230)
- English Teaching Minor (p. 230)
- Irish Studies Minor (p. 231)

## Creative Writing B.F.A.

### General Degree Requirements

To earn a baccalaureate degree, all students must complete successfully, in addition to any other requirements, the University of Montana General Education Requirements. Please refer to the General Education Requirements page (p. 39) for more information.

Additional requirements for graduation can be found on the Degree/Certificate Requirements for Graduation page (p. 36).

Unless otherwise noted in individual program requirements, a minimum grade point average of 2.00 in all work attempted at the University of Montana-Missoula is required for graduation. Please see the Academic Policies and Procedures page (p. 25) for information on how your GPA is calculated.

Courses taken to satisfy the requirements of a major, minor, or certificate program must be completed with a grade of C- or better unless a higher grade is noted in the program requirements.

## Bachelor of Fine Arts - Creative Writing

### Course Requirements

| Code                                                              | Title                                                      | Hours |
|-------------------------------------------------------------------|------------------------------------------------------------|-------|
| <b>Core Courses</b>                                               |                                                            |       |
| Complete the following course:                                    |                                                            |       |
| LIT 110L                                                          | Introduction to Literature                                 | 3     |
| Complete two of the following courses:                            |                                                            | 6     |
| LIT 236L                                                          | Literary Histories                                         |       |
| LIT 246L                                                          | Genres, Themes, Approaches                                 |       |
| LIT 291                                                           | Special Topics                                             |       |
| Complete two of the following courses:                            |                                                            | 6     |
| CRWR 210A                                                         | Introductory Fiction Workshop                              |       |
| CRWR 211A                                                         | Introductory Poetry Workshop                               |       |
| CRWR 212A                                                         | Introductory Nonfiction Workshop                           |       |
| Complete all of the following courses:                            |                                                            |       |
| LIT 300                                                           | Literary Criticism                                         | 3     |
| LIT 327L                                                          | Shakespeare                                                | 3     |
| <b>Upper-Division Electives</b>                                   |                                                            |       |
| Complete two LIT courses (6 credits) at the 300- or 400-level.    |                                                            | 6     |
| Complete 3 credits of the following courses:                      |                                                            | 3     |
| Any 300- or 400-level Literature (LIT) course                     |                                                            |       |
| Any 300- or 400-level Irish Studies (IRSH) course                 |                                                            |       |
| Any 300- or 400-level non-workshop Creative Writing (CRWR) course |                                                            |       |
| Any 300- or 400-level Linguistics (LING) course                   |                                                            |       |
| Any 300- or 400-level English Teaching (ENT) course               |                                                            |       |
| Any 300- or 400-level Writing (WRIT) course                       |                                                            |       |
| CHIN 313L                                                         | Chinese Poetry in Translation                              |       |
| CHIN 314                                                          | Traditional Chinese Literature                             |       |
| CHIN 380                                                          | Chinese Folktales                                          |       |
| FRCH 310                                                          | French Literature and Culture: Middle Ages and Renaissance |       |
| FRCH 311                                                          | French Literature and Culture: 17th Century                |       |
| FRCH 312                                                          | French Literature and Culture: 19th Century                |       |
| FRCH 313                                                          | French Literature and Culture: 20th Century                |       |
| FRCH 338                                                          | The French Cinema                                          |       |
| GRMN 311                                                          | Introduction to German Literature                          |       |
| GRMN 322L                                                         | Survey of German Cinema                                    |       |
| GRMN 431                                                          | German Literature 1760-1832                                |       |
| GRMN 441                                                          | 19th Century German Literature                             |       |
| GRMN 451                                                          | 20th and 21st Century German Literature                    |       |

|           |                                                 |
|-----------|-------------------------------------------------|
| JPNS 312L | Jpns Lit Medieval to Mod                        |
| JPNS 371  | Japanese Film and Anime                         |
| JPNS 411  | Modern Japanese Writers and Thinkers            |
| JPNS 431  | Post-War Japanese Literature                    |
| MART 300  | Visions of Film                                 |
| MART 304  | Modern Horror Film                              |
| MART 352  | Writing for TV                                  |
| RUSS 306L | Evil and the Supernatural in Russian Literature |
| RUSS 308  | Russian Cinema and Culture                      |
| RUSS 412  | 20th-Century Russian Authors                    |
| SPNS 326  | Contemporary Spanish Lit                        |
| SPNS 355  | Topics in Spanish Literature and Culture        |
| SPNS 432  | Latin American Literature                       |
| SPNS 465  | Spanish Literature: Renaissance and Golden Age  |
| SPNS 466  | Spanish Literature: Modern & Contemporary       |

Upper-Division Creative Writing Courses

Complete 3 of the following courses. One of the courses must be a 400-level workshop (CRWR 410, 411, 412).

|           |                                  |
|-----------|----------------------------------|
| CRWR 310  | Intermediate Fiction Workshop    |
| CRWR 311  | Intermediate Poetry Workshop     |
| CRWR 312A | Intermediate Nonfiction Workshop |
| CRWR 320  | The Art and Craft of Revision    |
| CRWR 391  | Special Topics                   |
| CRWR 410  | Advanced Fiction Workshop        |
| CRWR 411  | Advanced Poetry Workshop         |
| CRWR 412  | Advanced Nonfiction Workshop     |
| CRWR 425  | Storytelling                     |
| CRWR 491  | Special Topics                   |

Capstone

Complete one of the following courses:

|          |                     |
|----------|---------------------|
| CRWR 480 | Fiction Capstone    |
| CRWR 481 | Poetry Capstone     |
| CRWR 482 | Nonfiction Capstone |

Language Requirement <sup>1</sup>

Complete the 202-level proficiency in either a modern or classical language other than English.

Total Hours 46-60

<sup>1</sup> Students may either take four sequential semesters (101, 102, 201, 202) of a language sequence or demonstrate proficiency through examination. Language proficiency examinations are available through the Department of World Languages and Cultures.

Four Year Plan

| Course       | Title                               | Hours |
|--------------|-------------------------------------|-------|
| Freshman     |                                     |       |
| Autumn       |                                     |       |
| CRWR 115L    | Montana Writers Live                | 3     |
| or CRWR 210A | or Introductory Fiction Workshop    |       |
| or CRWR 211A | or Introductory Poetry Workshop     |       |
| or CRWR 212A | or Introductory Nonfiction Workshop |       |
| WRIT 101     | College Writing I                   | 4     |

|                                 |                                                 |       |
|---------------------------------|-------------------------------------------------|-------|
| Foreign Language 101            |                                                 | 4     |
| M 105                           | Contemporary Mathematics                        | 3-4   |
| Hours                           |                                                 | 14-15 |
| Spring                          |                                                 |       |
| LIT 110L                        | Introduction to Literature                      | 3     |
| CRWR 234                        | The Oval: Literary Magazine                     | 3     |
| or CRWR 210A                    | or Introductory Fiction Workshop                |       |
| or CRWR 211A                    | or Introductory Poetry Workshop                 |       |
| or CRWR 212A                    | or Introductory Nonfiction Workshop             |       |
| Foreign Language 102            |                                                 | 4     |
| General Education Requirement   |                                                 | 6     |
| Hours                           |                                                 | 16    |
| Sophomore                       |                                                 |       |
| Autumn                          |                                                 |       |
| LIT 236L                        | Literary Histories                              | 3     |
| or LIT 246L                     | or Genres, Themes, Approaches                   |       |
| Foreign Language 201            |                                                 | 4     |
| General Education Requirement   |                                                 | 6     |
| Elective                        |                                                 | 3     |
| CRWR 210A                       | Introductory Fiction Workshop                   | 3     |
| or CRWR 211A                    | or Introductory Poetry Workshop                 |       |
| or CRWR 212A                    | or Introductory Nonfiction Workshop             |       |
| Hours                           |                                                 | 19    |
| Spring                          |                                                 |       |
| LIT 246L                        | Genres, Themes, Approaches                      | 3     |
| or LIT 236L                     | or Literary Histories                           |       |
| Foreign Language 202            |                                                 | 4     |
| General Education Requirement   |                                                 | 6     |
| Elective                        |                                                 | 3     |
| Hours                           |                                                 | 16    |
| Junior                          |                                                 |       |
| Autumn                          |                                                 |       |
| LIT 327L                        | Shakespeare                                     | 3     |
| CRWR 310                        | Intermediate Fiction Workshop (or substitution) | 3     |
| or CRWR 311                     | or Intermediate Poetry Workshop                 |       |
| or CRWR 312A                    | or Intermediate Nonfiction Workshop             |       |
| Upper Division Elective         |                                                 | 6     |
| Elective                        |                                                 | 3     |
| Hours                           |                                                 | 15    |
| Spring                          |                                                 |       |
| LIT 300                         | Literary Criticism                              | 3     |
| CRWR 310                        | Intermediate Fiction Workshop                   | 3     |
| or CRWR 311                     | or Intermediate Poetry Workshop                 |       |
| or CRWR 312A                    | or Intermediate Nonfiction Workshop             |       |
| Upper Division Elective         |                                                 | 3     |
| Elective                        |                                                 | 6     |
| Hours                           |                                                 | 15    |
| Senior                          |                                                 |       |
| Autumn                          |                                                 |       |
| Upper Division CRWR course      |                                                 | 3     |
| Upper Division LIT Elective     |                                                 | 3     |
| Upper Division English Elective |                                                 | 3     |
| CRWR 410                        | Advanced Fiction Workshop                       | 3     |
| or CRWR 411                     | or Advanced Poetry Workshop                     |       |
| or CRWR 412                     | or Advanced Nonfiction Workshop                 |       |
| Electives                       |                                                 | 3     |
| Hours                           |                                                 | 15    |
| Spring                          |                                                 |       |
| CRWR 480                        | Fiction Capstone                                | 3     |
| or CRWR 481                     | or Poetry Capstone                              |       |
| or CRWR 482                     | or Nonfiction Capstone                          |       |
| Upper Division LIT course       |                                                 | 3     |
| Upper Division English Elective |                                                 | 3     |

|             |         |
|-------------|---------|
| Elective    | 6       |
| Hours       | 15      |
| Total Hours | 125-126 |

*Last updated Autumn 2024*

## English B.A. - Creative Writing

The Creative Writing program is predicated on the model of the workshop, and focuses on three areas of study: poetry, fiction, and nonfiction. Undergraduates who select the creative writing concentration fulfill some of the same requirements as those in literature, while also participating in a series of small writing workshops, gaining the techniques needed to craft poetry and/or prose that work towards artistic excellence. Graduate students pursuing an M.F.A. degree complete a series of writing workshops and seminars designed to develop their creative work and expand their understanding of literary technique. The Creative Writing faculty is augmented each year by visiting Hugo and Kittredge fellows. The program sponsors the graduate literary magazine, *CutBank*, now in its fourth decade of publishing works of poetry, prose and art. Additionally, undergraduate students have the opportunity to contribute to and edit their own literary magazine, *The Oval*.

## General Degree Requirements

To earn a baccalaureate degree, all students must complete successfully, in addition to any other requirements, the University of Montana General Education Requirements. Please refer to the General Education Requirements page (p. 39) for more information.

Additional requirements for graduation can be found on the Degree/Certificate Requirements for Graduation page (p. 36).

Unless otherwise noted in individual program requirements, a minimum grade point average of 2.00 in all work attempted at the University of Montana-Missoula is required for graduation. Please see the Academic Policies and Procedures page (p. 25) for information on how your GPA is calculated.

Courses taken to satisfy the requirements of a major, minor, or certificate program must be completed with a grade of C- or better unless a higher grade is noted in the program requirements.

## Bachelor of Arts - English; Creative Writing Concentration

### Course Requirements

| Code                                                | Title                            | Hours |
|-----------------------------------------------------|----------------------------------|-------|
| <b>Foundation Courses</b>                           |                                  |       |
| Complete all of the following courses:              |                                  |       |
| LIT 110L                                            | Introduction to Literature       | 3     |
| LIT 236L                                            | Literary Histories               | 3     |
| LIT 246L                                            | Genres, Themes, Approaches       | 3     |
| LIT 300                                             | Literary Criticism               | 3     |
| LIT 327L                                            | Shakespeare                      | 3     |
| Complete two of the following courses: <sup>1</sup> |                                  | 6     |
| CRWR 210A                                           | Introductory Fiction Workshop    |       |
| CRWR 211A                                           | Introductory Poetry Workshop     |       |
| CRWR 212A                                           | Introductory Nonfiction Workshop |       |
| CRWR 115L                                           | Montana Writers Live             |       |

|                                                                                                            |                                                                                            |
|------------------------------------------------------------------------------------------------------------|--------------------------------------------------------------------------------------------|
| CRWR 234                                                                                                   | The Oval: Literary Magazine                                                                |
| CRWR 310                                                                                                   | Intermediate Fiction Workshop (This is in addition to the 300-level workshop requirement.) |
| or CRWR 311                                                                                                | Intermediate Poetry Workshop                                                               |
| or CRWR 312                                                                                                | Intermediate Nonfiction Workshop                                                           |
| CRWR 391                                                                                                   | Special Topics                                                                             |
| or CRWR 491                                                                                                | Special Topics                                                                             |
| CRWR 392                                                                                                   | Independent Study                                                                          |
| or CRWR 492                                                                                                | Independent Study                                                                          |
| <b>Upper-Division Creative Writing Courses</b>                                                             |                                                                                            |
| Complete 3 of the following courses. One of the courses must be a 400-level workshop (CRWR 410, 411, 412). | 9                                                                                          |
| CRWR 310                                                                                                   | Intermediate Fiction Workshop                                                              |
| CRWR 311                                                                                                   | Intermediate Poetry Workshop                                                               |
| CRWR 312A                                                                                                  | Intermediate Nonfiction Workshop                                                           |
| CRWR 320                                                                                                   | The Art and Craft of Revision                                                              |
| CRWR 391                                                                                                   | Special Topics                                                                             |
| CRWR 410                                                                                                   | Advanced Fiction Workshop                                                                  |
| CRWR 411                                                                                                   | Advanced Poetry Workshop                                                                   |
| CRWR 412                                                                                                   | Advanced Nonfiction Workshop                                                               |
| CRWR 425                                                                                                   | Storytelling                                                                               |
| CRWR 491                                                                                                   | Special Topics                                                                             |
| <b>Upper-Division English Electives</b>                                                                    |                                                                                            |
| Complete 6 credits of the following courses:                                                               | 6                                                                                          |
| Any 300- or 400-level Literature (LIT) course                                                              |                                                                                            |
| Any 300- or 400-level Irish Studies (IRSH) course                                                          |                                                                                            |
| Any 300- or 400-level non-workshop Creative Writing (CRWR) course                                          |                                                                                            |
| Any 300- or 400-level Linguistics (LING) course                                                            |                                                                                            |
| Any 300- or 400-level English Teaching (ENT) course                                                        |                                                                                            |
| Any 300- or 400-level Writing (WRIT) course                                                                |                                                                                            |
| CHIN 313L                                                                                                  | Chinese Poetry in Translation                                                              |
| CHIN 314                                                                                                   | Traditional Chinese Literature                                                             |
| CHIN 380                                                                                                   | Chinese Folktales                                                                          |
| FRCH 310                                                                                                   | French Literature and Culture: Middle Ages and Renaissance                                 |
| FRCH 311                                                                                                   | French Literature and Culture: 17th Century                                                |
| FRCH 312                                                                                                   | French Literature and Culture: 19th Century                                                |
| FRCH 313                                                                                                   | French Literature and Culture: 20th Century                                                |
| FRCH 338                                                                                                   | The French Cinema                                                                          |
| GRMN 311                                                                                                   | Introduction to German Literature                                                          |
| GRMN 322L                                                                                                  | Survey of German Cinema                                                                    |
| GRMN 431                                                                                                   | German Literature 1760-1832                                                                |
| GRMN 441                                                                                                   | 19th Century German Literature                                                             |
| GRMN 451                                                                                                   | 20th and 21st Century German Literature                                                    |
| JPNS 312L                                                                                                  | Jpns Lit Medieval to Mod                                                                   |
| JPNS 371                                                                                                   | Japanese Film and Anime                                                                    |
| JPNS 411                                                                                                   | Modern Japanese Writers and Thinkers                                                       |
| JPNS 431                                                                                                   | Post-War Japanese Literature                                                               |
| MART 300                                                                                                   | Visions of Film                                                                            |
| MART 304                                                                                                   | Modern Horror Film                                                                         |
| MART 352                                                                                                   | Writing for TV                                                                             |



|                                                                                                 |                                                 |              |
|-------------------------------------------------------------------------------------------------|-------------------------------------------------|--------------|
| RUSS 306L                                                                                       | Evil and the Supernatural in Russian Literature |              |
| RUSS 308                                                                                        | Russian Cinema and Culture                      |              |
| RUSS 412                                                                                        | 20th-Century Russian Authors                    |              |
| SPNS 326                                                                                        | Contemporary Spanish Lit                        |              |
| SPNS 355                                                                                        | Topics in Spanish Literature and Culture        |              |
| SPNS 432                                                                                        | Latin American Literature                       |              |
| SPNS 465                                                                                        | Spanish Literature: Renaissance and Golden Age  |              |
| SPNS 466                                                                                        | Spanish Literature: Modern & Contemporary       |              |
| <b>Language Requirement <sup>2</sup></b>                                                        |                                                 |              |
| Complete the 202-level proficiency in either a modern or classical language other than English. |                                                 | 4-18         |
| <b>Total Hours</b>                                                                              |                                                 | <b>40-54</b> |

<sup>1</sup> The Creative Writing faculty recommend students take more than one 200-level workshop (CRWR 210A, 211A, 212A) to fulfill this requirement; however, students may substitute one of the other courses listed in lieu of a workshop. Other courses may be substituted at the discretion of the student's advisor.

<sup>2</sup> Students may either take four sequential semesters (101, 102, 201, 202) of a language sequence or demonstrate proficiency through examination. Language proficiency examinations are available through the Department of World Languages and Cultures.

Four Year Plan

| Course                                                    | Title                                                                                                                                     | Hours     |
|-----------------------------------------------------------|-------------------------------------------------------------------------------------------------------------------------------------------|-----------|
| <b>Freshman</b>                                           |                                                                                                                                           |           |
| <b>Autumn</b>                                             |                                                                                                                                           |           |
| CRWR 115L<br>or CRWR 210A<br>or CRWR 211A<br>or CRWR 212A | Montana Writers Live<br>or Introductory Fiction Workshop<br>or Introductory Poetry Workshop<br>or Introductory Nonfiction Workshop        | 3         |
| WRIT 101                                                  | College Writing I                                                                                                                         | 4         |
| Foreign Language 101                                      |                                                                                                                                           | 4         |
| General Education Requirement                             |                                                                                                                                           | 6         |
| HUSC 194                                                  | Seminar/Workshop                                                                                                                          | 1         |
| <b>Hours</b>                                              |                                                                                                                                           | <b>18</b> |
| <b>Spring</b>                                             |                                                                                                                                           |           |
| LIT 110L                                                  | Introduction to Literature                                                                                                                | 3         |
| CRWR 234<br>or CRWR 210A<br>or CRWR 211A<br>or CRWR 212A  | The Oval: Literary Magazine<br>or Introductory Fiction Workshop<br>or Introductory Poetry Workshop<br>or Introductory Nonfiction Workshop | 3         |
| Foreign Language 102                                      |                                                                                                                                           | 4         |
| General Education Requirement                             |                                                                                                                                           | 6         |
| <b>Hours</b>                                              |                                                                                                                                           | <b>16</b> |
| <b>Sophomore</b>                                          |                                                                                                                                           |           |
| <b>Autumn</b>                                             |                                                                                                                                           |           |
| LIT 236L<br>or LIT 246L                                   | Literary Histories<br>or Genres, Themes, Approaches                                                                                       | 3         |
| CRWR 210A<br>or CRWR 211A<br>or CRWR 212A                 | Introductory Fiction Workshop<br>or Introductory Poetry Workshop<br>or Introductory Nonfiction Workshop                                   | 3         |
| Foreign Language 201                                      |                                                                                                                                           | 4         |
| General Education Requirement                             |                                                                                                                                           | 6         |
| Elective                                                  |                                                                                                                                           | 3         |
| <b>Hours</b>                                              |                                                                                                                                           | <b>19</b> |

|                                         |                                                                                                                                        |                |
|-----------------------------------------|----------------------------------------------------------------------------------------------------------------------------------------|----------------|
| <b>Spring</b>                           |                                                                                                                                        |                |
| LIT 246L<br>or LIT 236L                 | Genres, Themes, Approaches<br>or Literary Histories                                                                                    | 3              |
| Foreign Language 202                    |                                                                                                                                        | 4              |
| General Education Requirement           |                                                                                                                                        | 6              |
| Elective                                |                                                                                                                                        | 3              |
| <b>Hours</b>                            |                                                                                                                                        | <b>16</b>      |
| <b>Junior</b>                           |                                                                                                                                        |                |
| <b>Autumn</b>                           |                                                                                                                                        |                |
| LIT 327L                                | Shakespeare                                                                                                                            | 3              |
| CRWR 310<br>or CRWR 311<br>or CRWR 312A | Intermediate Fiction Workshop (or substitution) <sup>1</sup><br>or Intermediate Poetry Workshop<br>or Intermediate Nonfiction Workshop | 3              |
| Upper Division Elective                 |                                                                                                                                        | 6              |
| Elective                                |                                                                                                                                        | 3              |
| <b>Hours</b>                            |                                                                                                                                        | <b>15</b>      |
| <b>Spring</b>                           |                                                                                                                                        |                |
| LIT 300                                 | Literary Criticism                                                                                                                     | 3              |
| Upper Division Elective                 |                                                                                                                                        | 3              |
| Elective                                |                                                                                                                                        | 6              |
| <b>Hours</b>                            |                                                                                                                                        | <b>12</b>      |
| <b>Senior</b>                           |                                                                                                                                        |                |
| <b>Autumn</b>                           |                                                                                                                                        |                |
| CRWR 311<br>or CRWR 310<br>or CRWR 312A | Intermediate Poetry Workshop <sup>1</sup><br>or Intermediate Fiction Workshop<br>or Intermediate Nonfiction Workshop                   | 3              |
| Upper Division English Elective         |                                                                                                                                        | 3              |
| Upper Division Elective                 |                                                                                                                                        | 6              |
| Elective                                |                                                                                                                                        | 3              |
| <b>Hours</b>                            |                                                                                                                                        | <b>15</b>      |
| <b>Spring</b>                           |                                                                                                                                        |                |
| CRWR 410<br>or CRWR 411<br>or CRWR 412  | Advanced Fiction Workshop<br>or Advanced Poetry Workshop<br>or Advanced Nonfiction Workshop                                            | 2-3            |
| Upper Division English Elective         |                                                                                                                                        | 6              |
| Elective                                |                                                                                                                                        | 3              |
| <b>Hours</b>                            |                                                                                                                                        | <b>11-12</b>   |
| <b>Total Hours</b>                      |                                                                                                                                        | <b>122-123</b> |

Last updated Autumn 2024

<sup>1</sup> Students may repeat CRWR 310A, 311, or 312 up to three times.

English B.A. - Literature

Under the Literature concentration, students ground their study of literature in a series of introductory courses in major themes and historical approaches, intermediate courses in Shakespeare and literary theory, and a senior seminar that requires the development of a research project. Students complement these core courses with a selection of electives that engage specific genres, authors, and periods, as well as different disciplines and literatures of diversity (e.g. Native American Literature). M.A. students select graduate seminars in American, British, and world literatures as well as other disciplines, their course work culminating in either a traditional thesis or a portfolio of seminar papers revised in collaboration with a committee. The Literature concentration imparts an understanding of not only the aesthetic richness of canonical and emerging literatures but also the historical and cultural forces that have contributed to their making. The classes are of a size that makes discussion an important part of a student s experience.

## General Degree Requirements

To earn a baccalaureate degree, all students must complete successfully, in addition to any other requirements, the University of Montana General Education Requirements. Please refer to the General Education Requirements page (p. 39) for more information.

Additional requirements for graduation can be found on the Degree/Certificate Requirements for Graduation page (p. 36).

Unless otherwise noted in individual program requirements, a minimum grade point average of 2.00 in all work attempted at the University of Montana-Missoula is required for graduation. Please see the Academic Policies and Procedures page (p. 25) for information on how your GPA is calculated.

Courses taken to satisfy the requirements of a major, minor, or certificate program must be completed with a grade of C- or better unless a higher grade is noted in the program requirements.

## Bachelor of Arts - English; Literature Concentration

- Students majoring in English with the concentration in Literature must earn 36 of their total credits in Department of English courses.

### Course Requirements

| Code                                                                                                                                               | Title                                  | Hours |
|----------------------------------------------------------------------------------------------------------------------------------------------------|----------------------------------------|-------|
| <b>English Core Courses</b>                                                                                                                        |                                        |       |
| Complete all of the following courses:                                                                                                             |                                        |       |
| LIT 110L                                                                                                                                           | Introduction to Literature             | 3     |
| or LIT 120L                                                                                                                                        | Poetry                                 |       |
| LIT 300                                                                                                                                            | Literary Criticism                     | 3     |
| LIT 327L                                                                                                                                           | Shakespeare                            | 3     |
| Complete two of the following courses (note: you may take two sections of LIT 236L or LIT 246L if the course subtitles and content are different): |                                        | 6     |
| LIT 236L                                                                                                                                           | Literary Histories                     |       |
| LIT 246L                                                                                                                                           | Genres, Themes, Approaches             |       |
| <b>Upper-Division Core Courses</b>                                                                                                                 |                                        |       |
| Complete 4 of the following courses, with at least one being a 400-level course:                                                                   |                                        | 12    |
| LIT 304                                                                                                                                            | U.S. Writers of Color                  |       |
| LIT 305                                                                                                                                            | Literature by & About Native Americans |       |
| LIT 314L                                                                                                                                           | The American Novel                     |       |
| LIT 315                                                                                                                                            | Voices of the American Renaissance     |       |
| LIT 331                                                                                                                                            | Major Authors                          |       |
| LIT 342L                                                                                                                                           | Montana Writers                        |       |
| LIT 343                                                                                                                                            | African American Literature            |       |
| LIT 344                                                                                                                                            | Asian American Literature              |       |
| LIT 350L                                                                                                                                           | Chaucer                                |       |
| LIT 353L                                                                                                                                           | Milton                                 |       |
| LIT 355                                                                                                                                            | British Romanticism                    |       |
| LIT 363                                                                                                                                            | Modern Poetry                          |       |
| LIT 369                                                                                                                                            | Short Fiction                          |       |
| LIT 370                                                                                                                                            | Science Fiction                        |       |
| LIT 373                                                                                                                                            | Literature & Environment               |       |
| LIT 376                                                                                                                                            | Literature & Other Disciplines         |       |

|                                                                   |                                                            |
|-------------------------------------------------------------------|------------------------------------------------------------|
| LIT 380                                                           | Literary Approaches to Drama                               |
| LIT 391                                                           | Special Topics                                             |
| LIT 422                                                           | Ecocritical Theory & Practice                              |
| LIT 430                                                           | Studies in Comparative Literature                          |
| LIT 491                                                           | Special Topics                                             |
| <b>Upper-Division English Electives</b>                           |                                                            |
| Complete 6 credits of the following courses:                      |                                                            |
| Any 300- or 400-level Literature (LIT) course                     |                                                            |
| Any 300- or 400-level Irish Studies (IRSH) course                 |                                                            |
| Any 300- or 400-level non-workshop Creative Writing (CRWR) course |                                                            |
| Any 300- or 400-level Linguistics (LING) course                   |                                                            |
| Any 300- or 400-level English Teaching (ENT) course               |                                                            |
| Any 300- or 400-level Writing (WRIT) course                       |                                                            |
| CHIN 313L                                                         | Chinese Poetry in Translation                              |
| CHIN 314                                                          | Traditional Chinese Literature                             |
| CHIN 380                                                          | Chinese Folktales                                          |
| FRCH 310                                                          | French Literature and Culture: Middle Ages and Renaissance |
| FRCH 311                                                          | French Literature and Culture: 17th Century                |
| FRCH 312                                                          | French Literature and Culture: 19th Century                |
| FRCH 313                                                          | French Literature and Culture: 20th Century                |
| FRCH 338                                                          | The French Cinema                                          |
| GRMN 311                                                          | Introduction to German Literature                          |
| GRMN 322L                                                         | Survey of German Cinema                                    |
| GRMN 431                                                          | German Literature 1760-1832                                |
| GRMN 441                                                          | 19th Century German Literature                             |
| GRMN 451                                                          | 20th and 21st Century German Literature                    |
| JPNS 312L                                                         | Jpns Lit Medieval to Mod                                   |
| JPNS 371                                                          | Japanese Film and Anime                                    |
| JPNS 411                                                          | Modern Japanese Writers and Thinkers                       |
| JPNS 431                                                          | Post-War Japanese Literature                               |
| MART 300                                                          | Visions of Film                                            |
| MART 304                                                          | Modern Horror Film                                         |
| MART 352                                                          | Writing for TV                                             |
| RUSS 306L                                                         | Evil and the Supernatural in Russian Literature            |
| RUSS 308                                                          | Russian Cinema and Culture                                 |
| RUSS 412                                                          | 20th-Century Russian Authors                               |
| SPNS 326                                                          | Contemporary Spanish Lit                                   |
| SPNS 355                                                          | Topics in Spanish Literature and Culture                   |
| SPNS 432                                                          | Latin American Literature                                  |
| SPNS 465                                                          | Spanish Literature: Renaissance and Golden Age             |
| SPNS 466                                                          | Spanish Literature: Modern & Contemporary                  |
| <b>Literature Seminar Capstone</b>                                |                                                            |
| Complete the following course:                                    |                                                            |
| LIT 494                                                           | Seminar: Literature Capstone                               |
| <b>Language Requirement <sup>1</sup></b>                          |                                                            |

6

3

|                                                                                                 |              |
|-------------------------------------------------------------------------------------------------|--------------|
| Complete the 202-level proficiency in either a modern or classical language other than English. | 4-18         |
| <b>Total Hours</b>                                                                              | <b>40-54</b> |

<sup>1</sup> Students may either take four sequential semesters (101, 102, 201, 202) of a language sequence or demonstrate proficiency through examination. Language proficiency examinations are available through the Department of World Languages and Cultures.

Four Year Plan

| Course                                  | Title                                               | Hours     |
|-----------------------------------------|-----------------------------------------------------|-----------|
| <b>Freshman</b>                         |                                                     |           |
| <b>Autumn</b>                           |                                                     |           |
| LIT 110L                                | Introduction to Literature                          | 3         |
| WRIT 101                                | College Writing I                                   | 4         |
| Foreign Language 101                    |                                                     | 4         |
| General Education Requirement           |                                                     | 3         |
| HUSC 194                                | Seminar/Workshop                                    | 1         |
| <b>Hours</b>                            |                                                     | <b>15</b> |
| <b>Spring</b>                           |                                                     |           |
| LIT 236L<br>or LIT 246L                 | Literary Histories<br>or Genres, Themes, Approaches | 3         |
| Foreign Language 102                    |                                                     | 4         |
| General Education Requirement           |                                                     | 6         |
| Elective                                |                                                     | 3         |
| <b>Hours</b>                            |                                                     | <b>16</b> |
| <b>Sophomore</b>                        |                                                     |           |
| <b>Autumn</b>                           |                                                     |           |
| LIT 246L<br>or LIT 236L                 | Genres, Themes, Approaches<br>or Literary Histories | 3         |
| Foreign Language 201                    |                                                     | 4         |
| General Education Requirement           |                                                     | 6         |
| Elective                                |                                                     | 3         |
| <b>Hours</b>                            |                                                     | <b>16</b> |
| <b>Spring</b>                           |                                                     |           |
| LIT 300                                 | Literary Criticism                                  | 3         |
| Foreign Language 202                    |                                                     | 4         |
| General Education Requirement           |                                                     | 6         |
| Elective                                |                                                     | 3         |
| <b>Hours</b>                            |                                                     | <b>16</b> |
| <b>Junior</b>                           |                                                     |           |
| <b>Autumn</b>                           |                                                     |           |
| LIT 327L                                | Shakespeare                                         | 3         |
| Upper Division Literature Course        |                                                     | 3         |
| Upper Division Elective                 |                                                     | 3         |
| Elective                                |                                                     | 6         |
| <b>Hours</b>                            |                                                     | <b>15</b> |
| <b>Spring</b>                           |                                                     |           |
| Upper Division Literature Course        |                                                     | 3         |
| Upper Division English Elective         |                                                     | 3         |
| Upper Division Elective                 |                                                     | 3         |
| Elective                                |                                                     | 6         |
| <b>Hours</b>                            |                                                     | <b>15</b> |
| <b>Senior</b>                           |                                                     |           |
| <b>Autumn</b>                           |                                                     |           |
| Upper Division Literature Course (400+) |                                                     | 3         |
| Upper Division English Elective         |                                                     | 3         |
| Upper Division Elective                 |                                                     | 3         |
| Elective                                |                                                     | 6         |
| <b>Hours</b>                            |                                                     | <b>15</b> |

|                                  |                              |            |
|----------------------------------|------------------------------|------------|
| <b>Spring</b>                    |                              |            |
| LIT 494                          | Seminar: Literature Capstone | 3          |
| Upper Division Literature Course |                              | 3          |
| Upper Division Elective          |                              | 3          |
| Elective                         |                              | 3          |
| <b>Hours</b>                     |                              | <b>12</b>  |
| <b>Total Hours</b>               |                              | <b>120</b> |

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Must have one course in A, B, C, & D designation.

English B.A. - Teaching English

The English Teaching program provides content knowledge, pedagogy, and professional experiences required for teaching literacy in a democratic society. Based on current research and best practices, the English Teaching program integrates the study of language, literature, and media. The program creates learning communities and supports teachers as critical thinkers, creative problem solvers, and reflective practitioners. Students who successfully complete this concentration and the requirements from the College of Education receive both a B.A. in English and a secondary teaching license (grades 5-12) in English. At the graduate level, the English Teaching program offers advanced theory and pedagogy courses, culminating in an M.A. in English. The English Teaching Program is also the home of the Montana Writing Project, which is dedicated to improving the teaching and learning of writing at all grade levels and offers a special focus on meeting the state-mandated Indian Education for All. Graduates of the program have become Montana Teachers of the Year and National Board of Certified Teachers.

Individuals interested in teaching in K-12 schools must complete a degree in the content area they want to teach plus the Teacher Education Program through the Department of Teaching and Learning. Individuals must complete the teaching track within that degree program, which may contain different course requirements than the non-teaching track since the sequence of courses is designed to meet state standards. Upon completion of the degree program with the teaching track and the secondary licensure program, one will be eligible for a standard Montana teaching license in this content area.

- Secondary Education Licensure Program (<https://www.umt.edu/education/departments/teaching-and-learning/tep/default.php>)
- Licensure Degree Requirements (p. 151)

General Degree Requirements

To earn a baccalaureate degree, all students must complete successfully, in addition to any other requirements, the University of Montana General Education Requirements. Please refer to the General Education Requirements page (p. 39) for more information.

Additional requirements for graduation can be found on the Degree/Certificate Requirements for Graduation page (p. 36).

Unless otherwise noted in individual program requirements, a minimum grade point average of 2.00 in all work attempted at the University of Montana-Missoula is required for graduation. Please see the Academic Policies and Procedures page (p. 25) for information on how your GPA is calculated.

Courses taken to satisfy the requirements of a major, minor, or certificate program must be completed with a grade of C- or better unless a higher grade is noted in the program requirements.

## Bachelor of Arts - English; Teaching English Concentration

### Course Requirements

| Code                                              | Title                                  | Hours |
|---------------------------------------------------|----------------------------------------|-------|
| <b>English Core Courses</b>                       |                                        |       |
| Complete all of the following courses:            |                                        |       |
| LIT 110L                                          | Introduction to Literature             | 3     |
| or CRWR 211A Introductory Poetry Workshop         |                                        |       |
| LIT 300                                           | Literary Criticism                     | 3     |
| LIT 327L                                          | Shakespeare                            | 3     |
| Complete two of the following courses:            |                                        | 6     |
| LIT 236L                                          | Literary Histories                     |       |
| LIT 246L                                          | Genres, Themes, Approaches             |       |
| <b>Upper-Division Literature Courses</b>          |                                        |       |
| Complete two of the following courses:            |                                        | 6     |
| LIT 304                                           | U.S. Writers of Color                  |       |
| LIT 305                                           | Literature by & About Native Americans |       |
| LIT 314L                                          | The American Novel                     |       |
| LIT 315                                           | Voices of the American Renaissance     |       |
| LIT 331                                           | Major Authors                          |       |
| LIT 342L                                          | Montana Writers                        |       |
| LIT 343                                           | African American Literature            |       |
| LIT 344                                           | Asian American Literature              |       |
| LIT 350L                                          | Chaucer                                |       |
| LIT 353L                                          | Milton                                 |       |
| LIT 355                                           | British Romanticism                    |       |
| LIT 363                                           | Modern Poetry                          |       |
| LIT 369                                           | Short Fiction                          |       |
| LIT 370                                           | Science Fiction                        |       |
| LIT 373                                           | Literature & Environment               |       |
| LIT 376                                           | Literature & Other Disciplines         |       |
| LIT 380                                           | Literary Approaches to Drama           |       |
| LIT 391                                           | Special Topics                         |       |
| LIT 422                                           | Ecocritical Theory & Practice          |       |
| LIT 430                                           | Studies in Comparative Literature      |       |
| LIT 491                                           | Special Topics                         |       |
| <b>English Teaching Courses</b> <sup>1</sup>      |                                        |       |
| Complete all of the following courses:            |                                        |       |
| ENT 439                                           | Studies in Young Adult Literature      | 3     |
| ENT 440                                           | Teaching Writing in Secondary School   | 3     |
| ENT 445                                           | Teaching Reading, & Literature         | 3     |
| Complete one of the following courses:            |                                        | 3     |
| LING 270S                                         | Intro to Linguistics                   |       |
| LING 470                                          | Linguistic Analysis                    |       |
| <b>Electives</b>                                  |                                        |       |
| Complete 9 credits of the following courses:      |                                        | 9     |
| Any 300- or 400-level Literature (LIT) course     |                                        |       |
| Any 300- or 400-level Irish Studies (IRSH) course |                                        |       |

|                                                                   |                                                            |
|-------------------------------------------------------------------|------------------------------------------------------------|
| Any 300- or 400-level non-workshop Creative Writing (CRWR) course |                                                            |
| Any 300- or 400-level Linguistics (LING) course                   |                                                            |
| Any 300- or 400-level Writing (WRIT) course                       |                                                            |
| CHIN 313L                                                         | Chinese Poetry in Translation                              |
| CHIN 314                                                          | Traditional Chinese Literature                             |
| CHIN 380                                                          | Chinese Folktales                                          |
| FRCH 310                                                          | French Literature and Culture: Middle Ages and Renaissance |
| FRCH 311                                                          | French Literature and Culture: 17th Century                |
| FRCH 312                                                          | French Literature and Culture: 19th Century                |
| FRCH 313                                                          | French Literature and Culture: 20th Century                |
| FRCH 338                                                          | The French Cinema                                          |
| GRMN 311                                                          | Introduction to German Literature                          |
| GRMN 322L                                                         | Survey of German Cinema                                    |
| GRMN 431                                                          | German Literature 1760-1832                                |
| GRMN 441                                                          | 19th Century German Literature                             |
| GRMN 451                                                          | 20th and 21st Century German Literature                    |
| JPNS 312L                                                         | Jpns Lit Medieval to Mod                                   |
| JPNS 371                                                          | Japanese Film and Anime                                    |
| JPNS 411                                                          | Modern Japanese Writers and Thinkers                       |
| JPNS 431                                                          | Post-War Japanese Literature                               |
| MART 300                                                          | Visions of Film                                            |
| MART 304                                                          | Modern Horror Film                                         |
| MART 352                                                          | Writing for TV                                             |
| RUSS 306L                                                         | Evil and the Supernatural in Russian Literature            |
| RUSS 308                                                          | Russian Cinema and Culture                                 |
| RUSS 412                                                          | 20th-Century Russian Authors                               |
| SPNS 326                                                          | Contemporary Spanish Lit                                   |
| SPNS 355                                                          | Topics in Spanish Literature and Culture                   |
| SPNS 432                                                          | Latin American Literature                                  |
| SPNS 465                                                          | Spanish Literature: Renaissance and Golden Age             |
| SPNS 466                                                          | Spanish Literature: Modern & Contemporary                  |

### Language Requirement<sup>2</sup>

|             |      |       |       |                                                                                                        |     |
|-------------|------|-------|-------|--------------------------------------------------------------------------------------------------------|-----|
| Course List | Code | Title | Hours | Complete the first year-level proficiency in either a modern or classical language other than English. | 4-8 |
|-------------|------|-------|-------|--------------------------------------------------------------------------------------------------------|-----|

**Total Hours** **46-50**

<sup>1</sup> Students must be admitted to the Teacher Education program prior to enrolling in ENT 440, ENT 445, and ENT 442. Other EDU pre-/co-requisites also apply to ENT 440, ENT 445, and ENT 442.

<sup>2</sup> Students may either take four sequential semesters (101, 102, 201, 202) of a language sequence or demonstrate proficiency through examination. Language proficiency examinations are available through the Department of World Languages and Cultures.

### Secondary Teaching Licensure

For endorsement to teach this subject, a student also must gain admission to the Teacher Education Program and meet all the requirements for secondary teaching licensure (p. 151). For more

information, see the Teaching and Learning Department webpage (<https://www.umd.edu/education/departments/currinst/default.php>).

Four Year Plan

| Course                                        | Title                                                         | Hours      |
|-----------------------------------------------|---------------------------------------------------------------|------------|
| <b>Freshman</b>                               |                                                               |            |
| <b>Autumn</b>                                 |                                                               |            |
| LIT 110L<br>or CRWR 211A                      | Introduction to Literature<br>or Introductory Poetry Workshop | 3          |
| WRIT 101                                      | College Writing I                                             | 4          |
| Foreign Language 101                          |                                                               | 4          |
| General Education Requirement                 |                                                               | 6          |
| <b>Hours</b>                                  |                                                               | <b>17</b>  |
| <b>Spring</b>                                 |                                                               |            |
| LIT 236L<br>or LIT 246L                       | Literary Histories<br>or Genres, Themes, Approaches           | 3          |
| Foreign Language 102                          |                                                               | 4          |
| English Elective                              |                                                               | 3          |
| General Education Requirement                 |                                                               | 6          |
| <b>Hours</b>                                  |                                                               | <b>16</b>  |
| <b>Sophomore</b>                              |                                                               |            |
| <b>Autumn</b>                                 |                                                               |            |
| LIT 246L<br>or LIT 236L                       | Genres, Themes, Approaches<br>or Literary Histories           | 3          |
| ENT 439                                       | Studies in Young Adult Literature (FA only) <sup>1</sup>      | 3          |
| English Elective                              |                                                               | 3          |
| General Education Requirement                 |                                                               | 6          |
| <b>Hours</b>                                  |                                                               | <b>15</b>  |
| <b>Spring</b>                                 |                                                               |            |
| LIT 300                                       | Literary Criticism                                            | 3          |
| UD Literature Course (NASX focus)             |                                                               | 3          |
| LING 270S<br>or LING 470                      | Intro to Linguistics<br>or Linguistic Analysis                | 3          |
| General Education Requirement                 |                                                               | 3          |
| <b>Hours</b>                                  |                                                               | <b>12</b>  |
| <b>Junior</b>                                 |                                                               |            |
| <b>Autumn</b>                                 |                                                               |            |
| LIT 327L                                      | Shakespeare                                                   | 3          |
| Upper Division Literature Course <sup>3</sup> |                                                               |            |
| ENT 440                                       | Teaching Writing in Secondary School                          | 3          |
| Elective                                      |                                                               | 6          |
| <b>Hours</b>                                  |                                                               | <b>12</b>  |
| <b>Spring</b>                                 |                                                               |            |
| ENT 445                                       | Teaching Reading & Literature                                 | 3          |
| TEP Requirements                              |                                                               | 10         |
| Elective                                      |                                                               | 3          |
| <b>Hours</b>                                  |                                                               | <b>16</b>  |
| <b>Senior</b>                                 |                                                               |            |
| <b>Autumn</b>                                 |                                                               |            |
| ENT 442                                       | Teaching Oral Language & Media Literature                     | 3          |
| TEP Requirements                              |                                                               | 6          |
| Elective                                      |                                                               | 6          |
| <b>Hours</b>                                  |                                                               | <b>15</b>  |
| <b>Spring</b>                                 |                                                               |            |
| TEP Requirements                              |                                                               | 15         |
| <b>Hours</b>                                  |                                                               | <b>15</b>  |
| <b>Total Hours</b>                            |                                                               | <b>118</b> |

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<sup>1</sup> Students must be accepted into the Teacher Education Program to complete ENT/EDU requirements

<sup>2</sup> Must take another NASX course if they do not take NASX 304E

English Minor  
General Degree Requirements

To earn a baccalaureate degree, all students must complete successfully, in addition to any other requirements, the University of Montana General Education Requirements. Please refer to the General Education Requirements page (p. 39) for more information.

Additional requirements for graduation can be found on the Degree/ Certificate Requirements for Graduation page (p. 36).

Unless otherwise noted in individual program requirements, a minimum grade point average of 2.00 in all work attempted at the University of Montana-Missoula is required for graduation. Please see the Academic Policies and Procedures page (p. 25) for information on how your GPA is calculated.

Courses taken to satisfy the requirements of a major, minor, or certificate program must be completed with a grade of C- or better unless a higher grade is noted in the program requirements.

Minor - English  
Course Requirements

| Code                                                                                                               | Title | Hours     |
|--------------------------------------------------------------------------------------------------------------------|-------|-----------|
| <b>Foundational Courses</b>                                                                                        |       |           |
| Complete any two 200-level courses with LIT or CRWR prefixes.                                                      |       | 6         |
| <b>Focus Courses</b>                                                                                               |       |           |
| Complete any four upper-division English elective courses with the prefixes LIT, ENIR, FILM, or CRWR. <sup>1</sup> |       | 12        |
| <b>Total Hours</b>                                                                                                 |       | <b>18</b> |

<sup>1</sup> Some of these upper-division courses carry prerequisites, so students should select lower- and upper-division courses carefully to ensure those prerequisites are met. Students wishing to enroll in 300- or 400-level CRWR workshops (CRWR 310/CRWR 311/CRWR 312A/CRWR 410/CRWR 411/CRWR 412) must complete the 200-level CRWR pre-requisite. CRWR 410/CRWR 411/CRWR 412also require a writing submission for consent of instructor. Students wishing to enroll in upper-division LIT courses need to take 6 credits of LIT at the 200-level, LIT 300, and/or receive consent of instructor.

English Teaching Minor

The English Teaching program provides content knowledge, pedagogy, and professional experiences required for teaching literacy in a democratic society. Based on current research and best practices, the English Teaching program integrates the study of language, literature, and media, creating learning communities and supporting teachers as critical thinkers, creative problem solvers, and reflective practitioners. Students who successfully complete this option and the requirements from the College of Education receive a secondary teaching license (grades 5-12) in English. The English Teaching Program is also the home of the Montana Writing Project, which is dedicated to improving the



teaching and learning of writing at all grade levels and offers a special focus on meeting the state-mandated Indian Education for All.

**Notes:**

- This minor contains requirements designed to meet state standards. Those interested in teaching in K-12 schools must complete the teaching concentration of a major in a teaching content area plus the Teacher Education Program through the Department of Teaching and Learning. Additional teaching areas can be added through completion of the education/teaching concentration of a major or education/teaching minor in that content area.
  - Secondary Education Licensure Program (<https://www.umt.edu/education/departments/teaching-and-learning/tep/default.php>)
  - Licensure Degree Requirements (p. 151)
- To complete this minor, you need to contact the Teaching and Learning Department. Approvals for this track must come from the Teaching and Learning Department.
- Individuals completing this minor must also complete the education/teaching concentration of a major in another content area.

## General Degree Requirements

To earn a baccalaureate degree, all students must complete successfully, in addition to any other requirements, the University of Montana General Education Requirements. Please refer to the General Education Requirements page (p. 39) for more information.

Additional requirements for graduation can be found on the Degree/Certificate Requirements for Graduation page (p. 36).

Unless otherwise noted in individual program requirements, a minimum grade point average of 2.00 in all work attempted at the University of Montana-Missoula is required for graduation. Please see the Academic Policies and Procedures page (p. 25) for information on how your GPA is calculated.

Courses taken to satisfy the requirements of a major, minor, or certificate program must be completed with a grade of C- or better unless a higher grade is noted in the program requirements.

## Minor - English Teaching

### Course Requirements

| Code                                     | Title                                     | Hours |
|------------------------------------------|-------------------------------------------|-------|
| <b>Core Courses</b>                      |                                           |       |
| Complete all of the following courses:   |                                           |       |
| LIT 110L                                 | Introduction to Literature                | 3     |
|                                          | or CRWR 211A Introductory Poetry Workshop |       |
| LIT 300                                  | Literary Criticism                        | 3     |
| LIT 327L                                 | Shakespeare                               | 3     |
| Complete two of the following courses:   |                                           | 6     |
| LIT 236L                                 | Literary Histories                        |       |
| LIT 246L                                 | Genres, Themes, Approaches                |       |
| <b>Upper-Division Literature Courses</b> |                                           |       |
| Complete two of the following courses:   |                                           | 6     |
| LIT 304                                  | U.S. Writers of Color                     |       |
| LIT 305                                  | Literature by & About Native Americans    |       |
| LIT 314L                                 | The American Novel                        |       |
| LIT 315                                  | Voices of the American Renaissance        |       |

|          |                                   |
|----------|-----------------------------------|
| LIT 331  | Major Author/s                    |
| LIT 342L | Montana Writers                   |
| LIT 343  | African American Literature       |
| LIT 344  | Asian American Literature         |
| LIT 350L | Chaucer                           |
| LIT 353L | Milton                            |
| LIT 355  | British Romanticism               |
| LIT 363  | Modern Poetry                     |
| LIT 369  | Short Fiction                     |
| LIT 370  | Science Fiction                   |
| LIT 373  | Literature & Environment          |
| LIT 376  | Literature & Other Disciplines    |
| LIT 380  | Literary Approaches to Drama      |
| LIT 391  | Special Topics                    |
| LIT 422  | Ecocritical Theory & Practice     |
| LIT 430  | Studies in Comparative Literature |
| LIT 491  | Special Topics                    |

### Teaching English Courses

Complete all of the following courses:

|         |                                           |   |
|---------|-------------------------------------------|---|
| ENT 439 | Studies in Young Adult Literature         | 3 |
| ENT 440 | Teaching Writing in Secondary School      | 3 |
| ENT 442 | Teaching Oral Language & Media Literature | 3 |
| ENT 445 | Teaching Reading, & Literature            | 3 |

Complete one of the following courses:

|           |                      |   |
|-----------|----------------------|---|
| LING 270S | Intro to Linguistics | 3 |
| LING 470  | Linguistic Analysis  |   |

### Language Requirement <sup>1</sup>

|                                                                                                        |     |
|--------------------------------------------------------------------------------------------------------|-----|
| Complete the first year-level proficiency in either a modern or classical language other than English. | 4-8 |
|--------------------------------------------------------------------------------------------------------|-----|

**Total Hours** **40-44**

<sup>1</sup> Students need to take one year (two semesters - 101 and 102) of a language sequence or demonstrate proficiency through examination. Language proficiency examinations are available through the Department of World Languages and Cultures.

## Secondary Teaching Licensure

For endorsement to teach this subject, a student also must gain admission to the Teacher Education Program and meet all the requirements for secondary teaching licensure (p. 151). For more information, see the Teaching and Learning Department webpage (<https://www.umt.edu/education/departments/currinst/default.php>).

## Irish Studies Minor

The Department of English offers an interdisciplinary minor in Irish Studies, which provides students access to instruction in Irish language, history, literature, and culture. This academic and artistic approach to Irish culture involves an interdisciplinary and inter-collegiate collaboration that brings together leading scholars in the humanities and the creative arts.

## General Degree Requirements

To earn a baccalaureate degree, all students must complete successfully, in addition to any other requirements, the University of Montana General Education Requirements. Please refer to the General Education Requirements page (p. 39) for more information.

Additional requirements for graduation can be found on the Degree/Certificate Requirements for Graduation page (p. 36).

Unless otherwise noted in individual program requirements, a minimum grade point average of 2.00 in all work attempted at the University of Montana-Missoula is required for graduation. Please see the Academic Policies and Procedures page (p. 25) for information on how your GPA is calculated.

Courses taken to satisfy the requirements of a major, minor, or certificate program must be completed with a grade of C- or better unless a higher grade is noted in the program requirements.

## Minor - Irish Studies

### Course Requirements

| Code                                           | Title                                                             | Hours     |
|------------------------------------------------|-------------------------------------------------------------------|-----------|
| <b>Foundational Courses</b>                    |                                                                   |           |
| Complete all of the following courses:         |                                                                   |           |
| IRSH 101                                       | Elementary Irish                                                  | 4         |
| IRSH 102                                       | Elementary Irish II                                               | 4         |
| Complete one of the following courses:         |                                                                   | 3         |
| IRSH 249                                       | The Irish                                                         |           |
| IRSH 345L                                      | Literature in the Irish Lang                                      |           |
| <b>Irish Literature Course</b>                 |                                                                   |           |
| Complete 3 credits from the following courses: |                                                                   | 3         |
| IRSH 345L                                      | Literature in the Irish Lang                                      |           |
| IRSH 380                                       | Topics in Irish Studies                                           |           |
| IRSH 491                                       | Special Topics                                                    |           |
| LIT 331                                        | Major Author/s (if focused on an Irish author (e.g. James Joyce)) |           |
| <b>Electives</b>                               |                                                                   |           |
| Complete 6 credits from the following courses: |                                                                   | 6         |
| DANC 160A                                      | Dance Forms: Irish                                                |           |
| IRSH 201                                       | Intermediate Irish I <sup>1</sup>                                 |           |
| IRSH 380                                       | Topics in Irish Studies                                           |           |
| IRSH 391                                       | Special topics                                                    |           |
| IRSH 492                                       | Independent Study                                                 |           |
| LIT 376                                        | Literature & Other Disciplines <sup>2</sup>                       |           |
| LIT 391                                        | Special Topics <sup>2</sup>                                       |           |
| THTR 391                                       | Special Topics/Experimental Courses <sup>3</sup>                  |           |
| <b>Total Hours</b>                             |                                                                   | <b>20</b> |

<sup>1</sup> Students who wish to continue with Irish language through the 202 level may do so, but only Irish language IRSH 103 and IRSH 201 can count for minor electives.

<sup>2</sup> LIT 376 & LIT 391 may count toward the Irish Studies minor when the topics cover Irish themes, content, and literature.

<sup>3</sup> Irish Theater is offered intermittently through the College of Visual and Performing Arts as THTR 391.

## History

The History Department offers an exciting program of instruction for undergraduates in search of an education. The curriculum is designed to provide knowledge and understanding of the background and ramifications of present local, national, and world affairs. The program emphasizes historical analysis and critical thought rather than the memorization of facts. History majors are taught how to read critically, analyze thoughtfully, conduct research carefully, and write intelligently.

The department offers a wide variety of courses ranging in time, space, and theme. Courses span the full range of American history from the colonial period through the recent past. More specialized courses in local and regional history focus on Montana, the West, and the northern Rockies. Offerings in European and world history emphasize social, cultural, and intellectual history, French and German history, British history, Russian and Soviet history, Latin American history, Islamic civilization, East Asian history, and Central and Southwest Asian history. Topical courses explore issues of democracy, diplomacy, human rights, war and peace, terrorism, race and gender, religion, and environmental history.

History provides not only a basis for future employment but also, more importantly, furnishes knowledge and perspective for intelligent leadership in community affairs. Graduates are employed in federal, state, or local governments, with positions ranging from elected office to research analysts. Many teach history in middle schools and high schools while others pursue advanced degrees at the graduate level. Still others go on to attain professional degrees in law, journalism, and business.

The History Department at the University of Montana boasts professors with award-winning scholarship and active research agendas, which greatly enhances the education and training we provide to our students.

The Department offers the Bachelor of Arts, Master of Arts, and Doctor of Philosophy degrees.

Our graduate students have found great success in a diverse range of occupations in public history, in education, and in academia.

- History B.A. (p. 232)
- History B.A. - History Education (p. 234)
- History-Political Science B.A. (p. 236)
- History Minor (p. 238)
- History Education Minor (p. 239)
- History of Religions Certificate (p. 240)
- Public History Certificate (p. 241)

## History B.A.

### General Degree Requirements

To earn a baccalaureate degree, all students must complete successfully, in addition to any other requirements, the University of Montana General Education Requirements. Please refer to the General Education Requirements page (p. 39) for more information.

Additional requirements for graduation can be found on the Degree/Certificate Requirements for Graduation page (p. 36).

Unless otherwise noted in individual program requirements, a minimum grade point average of 2.00 in all work attempted at the University of Montana-Missoula is required for graduation. Please see the Academic Policies and Procedures page (p. 25) for information on how your GPA is calculated.

Courses taken to satisfy the requirements of a major, minor, or certificate program must be completed with a grade of C- or better unless a higher grade is noted in the program requirements.

## Bachelor of Arts - History

- A minimum of 40 credits in History are required, 21 of which must be upper-division credits.
- Credits from Advanced Placement and International Baccalaureate do not count toward these credit requirements.

### Course Requirements

| Code                                                | Title                                       | Hours |
|-----------------------------------------------------|---------------------------------------------|-------|
| <b>Lower-Division Core Courses</b>                  |                                             |       |
| Complete the following course:                      |                                             |       |
| HSTR 200                                            | Intro: Historical Methods                   | 1     |
| Complete two of the following courses: <sup>1</sup> |                                             | 8     |
| HSTA 101H                                           | American History I                          |       |
|                                                     | or HSTA 103H Honors American History I      |       |
| HSTA 102H                                           | American History II                         |       |
|                                                     | or HSTA 104H Honors American History II     |       |
| HSTR 101H                                           | Western Civilization I                      |       |
|                                                     | or HSTR 103H Honors Western Civilization I  |       |
| HSTR 102H                                           | Western Civilization II                     |       |
|                                                     | or HSTR 104H Honors Western Civilization II |       |
| <b>American History Electives <sup>2</sup></b>      |                                             |       |
| Complete 6 credits of the following courses:        |                                             | 6     |
| AAST 141H                                           | Black: From Africa to Hip-Hop               |       |
| HSTA 101H                                           | American History I                          |       |
| HSTA 102H                                           | American History II                         |       |
| HSTA 103H                                           | Honors American History I                   |       |
| HSTA 104H                                           | Honors American History II                  |       |
| HSTA 191                                            | Special Topics                              |       |
| HSTA 255                                            | Montana History                             |       |
| HSTA 291                                            | Special Topics                              |       |
| HSTA 307Y                                           | The American Revolution and Founding Era    |       |
| HSTA 315                                            | Early American Republic                     |       |
| HSTA 316                                            | American Civil War Era                      |       |
| HSTA 320                                            | Birth of Modern US                          |       |
| HSTA 321                                            | America in Crisis                           |       |
| HSTA 322                                            | U.S. History: WWII to Present               |       |
| HSTA 323                                            | U.S. in the 1950s                           |       |
| HSTA 324                                            | U.S. in the 1960s                           |       |
| HSTA 333                                            | American Military History                   |       |
| HSTA 335                                            | Movie America                               |       |
| HSTA 342H                                           | African American History to 1865            |       |
| HSTA 343H                                           | African American History Since 1865         |       |
| HSTA 347                                            | Voodoo, Muslim, Church: Black Religion      |       |
| HSTA 344                                            | African-American Struggle for Equality      |       |

|                                              |                                                                 |
|----------------------------------------------|-----------------------------------------------------------------|
| HSTA 361                                     | The American South                                              |
| HSTA 370H                                    | Women in America: Colonial Period to Civil War                  |
| HSTA 371H                                    | Women in America: From the Civil War to the Present             |
| HSTA 373                                     | The History of American Thought to 1865                         |
| HSTA 377                                     | Alcohol in American History                                     |
| HSTA 380                                     | American Constitutional History                                 |
| HSTA 382                                     | History of American Law                                         |
| HSTA 385                                     | Families & Children in America                                  |
| HSTA 391                                     | Special Topics                                                  |
| HSTA 415                                     | The Black Radical Tradition                                     |
| HSTA 417                                     | Prayer & Civil Rights                                           |
| HSTA 461                                     | Research in Montana History                                     |
| HSTA 471                                     | Writing Women's Lives                                           |
| HSTA 491                                     | Special topics                                                  |
| HSTA 494                                     | Seminar                                                         |
| HSTR 300                                     | Writing For History                                             |
| HSTR 364                                     | Environmental History                                           |
| HSTR 369                                     | 20th Century American West                                      |
| HSTR 400                                     | Historical Research Seminar                                     |
| <b>World History Electives <sup>3</sup></b>  |                                                                 |
| Complete 6 credits of the following courses: |                                                                 |
| HSTR 191                                     | Special Topics                                                  |
| HSTR 210E                                    | History of the Bible                                            |
| HSTR 211L                                    | Early Christianity                                              |
| HSTR 221H                                    | God- Past, Puzzle, Present                                      |
| HSTR 230H                                    | Colonial Latin America                                          |
| HSTR 231H                                    | Modern Latin America                                            |
| HSTR 240H                                    | East Asian Civilizations                                        |
| HSTR 262H                                    | Islamic Civilization: Classical Age                             |
| HSTR 272E                                    | Terrorism: Violence in the Modern World                         |
| HSTR 291                                     | Special Topics                                                  |
| HSTR 300                                     | Writing For History                                             |
| HSTR 309                                     | The First Historians                                            |
| HSTR 313                                     | Religion and Violence                                           |
| HSTR 314                                     | Origins of Western Religion                                     |
| HSTR 319                                     | Prophets and Prophecy                                           |
| HSTR 334                                     | Latin America: Reform & Revolution                              |
| HSTR 335                                     | Latin America: Workers & Labor                                  |
| HSTR 337                                     | The History of Capitalism in Latin America, 1492 to the Present |
| HSTR 338                                     | The History of Democracy in Latin America                       |
| HSTR 365                                     | History of the Ancient Near East                                |
| HSTR 368                                     | Iran Between Two Revolutions                                    |
| HSTR 386                                     | Nationalism and the Modern Middle East                          |
| HSTR 391                                     | Special Topics                                                  |
| HSTR 392                                     | Independent Study                                               |
| HSTR 400                                     | Historical Research Seminar                                     |
| HSTR 435                                     | Latin American Human Rights & Memory                            |
| HSTR 437                                     | US-Latin America Relations                                      |
| HSTR 441                                     | Islam and the West                                              |
| HSTR 448                                     | Tradition & Reform in China                                     |

|                                                           |                                                            |   |
|-----------------------------------------------------------|------------------------------------------------------------|---|
| HSTR 491                                                  | Special Topics                                             |   |
| HSTR 492                                                  | Independent Study                                          |   |
| PSCI 311                                                  | Revolution & Reform in Modern China                        |   |
| <b>European History Electives<sup>4</sup></b>             |                                                            |   |
| Complete 6 credits of the following courses:              |                                                            | 6 |
| HSTR 101H                                                 | Western Civilization I                                     |   |
| HSTR 102H                                                 | Western Civilization II                                    |   |
| HSTR 103H                                                 | Honors Western Civilization I                              |   |
| HSTR 104H                                                 | Honors Western Civilization II                             |   |
| HSTR 300                                                  | Writing For History                                        |   |
| HSTR 300                                                  | Writing For History                                        |   |
| HSTR 302H                                                 | Ancient Greece                                             |   |
| HSTR 303                                                  | Alexander the Great and the Hellenistic World              |   |
| HSTR 304H                                                 | Ancient Rome                                               |   |
| HSTR 312                                                  | Age of Absolutism 1648-1789                                |   |
| HSTR 315                                                  | Reformation                                                |   |
| HSTR 321                                                  | The Roman Empire                                           |   |
| HSTR 323                                                  | European Social and Intellectual History: The 19th Century |   |
| HSTR 325                                                  | European Social and Intellectual History: The 20th Century |   |
| HSTR 326                                                  | Contemporary Europe                                        |   |
| HSTR 348                                                  | Britain 1485-1688                                          |   |
| HSTR 349                                                  | Britain from Revolution to Reform 1688                     |   |
| HSTR 350                                                  | Modern Britain                                             |   |
| HSTR 351                                                  | Democracy: Ancient to Modern                               |   |
| HSTR 353                                                  | Modern France                                              |   |
| HSTR 354                                                  | Italy: 1300-1800                                           |   |
| HSTR 355                                                  | Italy: 1800-Present                                        |   |
| HSTR 356                                                  | The Age of Revolutions 1760-1848                           |   |
| HSTR 357                                                  | Russia to 1881                                             |   |
| HSTR 358                                                  | Russia Since 1881                                          |   |
| HSTR 361                                                  | Germany: Augsburg-Bismarck                                 |   |
| HSTR 363                                                  | Eastern Europe                                             |   |
| HSTR 370                                                  | Practicing Oral History                                    |   |
| HSTR 377                                                  | European Internal Relations                                |   |
| HSTR 401                                                  | The Great Historians                                       |   |
| <b>Writing in the Disciplines Requirement for History</b> |                                                            |   |
| Complete one of the following courses:                    |                                                            | 3 |
| HSTA 405                                                  | Public Problems & United States Democracy                  |   |
| HSTA 415                                                  | The Black Radical Tradition                                |   |
| HSTA 417                                                  | Prayer & Civil Rights                                      |   |
| HSTA 427                                                  | Freedom, Slavery, Equality: Early American Perspectives    |   |
| HSTA 461                                                  | Research in Montana History                                |   |
| HSTA 463                                                  | Research in 19th-20th Century Native American History      |   |
| HSTA 471                                                  | Writing Women's Lives                                      |   |
| HSTR 400                                                  | Historical Research Seminar                                |   |
| HSTR 437                                                  | US-Latin America Relations                                 |   |

**Additional History Courses**

|                                                                                                                                                          |    |
|----------------------------------------------------------------------------------------------------------------------------------------------------------|----|
| Complete 10 additional credits in History (HSTA, HSTR) for a total of 40 credits in History. 21 of these credits must be taken at the 300- or 400-level. | 10 |
|----------------------------------------------------------------------------------------------------------------------------------------------------------|----|

|                    |           |
|--------------------|-----------|
| <b>Total Hours</b> | <b>40</b> |
|--------------------|-----------|

- <sup>1</sup> Those students scoring a "5" on either the American History or European History AP exam are excused from this requirement. These students earn credit toward the requirement and graduation, but do not earn credit toward the history degree.
- <sup>2</sup> Courses with American history content offered in other departments may count toward the History major with consent of the History Department Chair.
- <sup>3</sup> Courses with World history content offered in other departments may count toward the History major with consent of the History Department Chair.
- <sup>4</sup> Courses with European history content offered in other departments may count toward the History major with consent of the History Department Chair.

## History B.A. - History Education

Individuals interested in teaching in K-12 schools must complete a degree in the content area they want to teach plus the Teacher Education Program through the Department of Teaching and Learning. Individuals must complete the teaching track within that degree program, which may contain different course requirements than the academic major since the sequence of courses is designed to meet state standards. Upon completion of the degree program with the teaching track and the secondary licensure program, students will be eligible for a standard Montana teaching license in this content area.

- Secondary Education Licensure Program (<https://www.umt.edu/education/departments/teaching-and-learning/tep/>)
- Licensure Degree Requirements (p. 151)

## General Degree Requirements

To earn a baccalaureate degree, all students must complete successfully, in addition to any other requirements, the University of Montana General Education Requirements. Please refer to the General Education Requirements page (p. 39) for more information.

Additional requirements for graduation can be found on the Degree/Certificate Requirements for Graduation page (p. 36).

Unless otherwise noted in individual program requirements, a minimum grade point average of 2.00 in all work attempted at the University of Montana-Missoula is required for graduation. Please see the Academic Policies and Procedures page (p. 25) for information on how your GPA is calculated.

Courses taken to satisfy the requirements of a major, minor, or certificate program must be completed with a grade of C- or better unless a higher grade is noted in the program requirements.

## Bachelor of Arts - History; History Education Concentration

- Students must be formally admitted to the Teacher Education Program and complete all of the professional education licensure

requirements. See the Department of Teaching and Learning in the College of Education for more information.

- Students who choose to complete the concentration in History Education must also complete the teaching concentration in a major or education minor in a second field.

## Course Requirements

| Code                                                          | Title                                               | Hours |
|---------------------------------------------------------------|-----------------------------------------------------|-------|
| <b>Lower-Division Core Courses</b>                            |                                                     |       |
| Complete one of the following courses:                        |                                                     | 4     |
| HSTA 101H                                                     | American History I                                  |       |
| or HSTA 103H                                                  | Honors American History I                           |       |
| HSTA 102H                                                     | American History II                                 |       |
| or HSTA 104H                                                  | Honors American History II                          |       |
| Complete one of the following courses:                        |                                                     | 4     |
| HSTR 101H                                                     | Western Civilization I                              |       |
| or HSTR 103H                                                  | Honors Western Civilization I                       |       |
| HSTR 102H                                                     | Western Civilization II                             |       |
| or HSTR 104H                                                  | Honors Western Civilization II                      |       |
| Complete all of the following courses:                        |                                                     |       |
| HSTA 255                                                      | Montana History                                     | 3     |
| HSTR 200                                                      | Intro: Historical Methods                           | 1     |
| <b>American History Upper-Division Electives <sup>1</sup></b> |                                                     |       |
| Complete 6 credits of the following courses:                  |                                                     | 6     |
| HSTA 307Y                                                     | The American Revolution and Founding Era            |       |
| HSTA 315                                                      | Early American Republic                             |       |
| HSTA 316                                                      | American Civil War Era                              |       |
| HSTA 320                                                      | Birth of Modern US                                  |       |
| HSTA 321                                                      | America in Crisis                                   |       |
| HSTA 322                                                      | U.S. History: WWII to Present                       |       |
| HSTA 323                                                      | U.S. in the 1950s                                   |       |
| HSTA 324                                                      | U.S. in the 1960s                                   |       |
| HSTA 333                                                      | American Military History                           |       |
| HSTA 335                                                      | Movie America                                       |       |
| HSTA 342H                                                     | African American History to 1865                    |       |
| HSTA 343H                                                     | African American History Since 1865                 |       |
| HSTA 347                                                      | Voodoo, Muslim, Church: Black Religion              |       |
| HSTA 344                                                      | African-American Struggle for Equality              |       |
| HSTA 361                                                      | The American South                                  |       |
| HSTA 370H                                                     | Women in America: Colonial Period to Civil War      |       |
| HSTA 371H                                                     | Women in America: From the Civil War to the Present |       |
| HSTA 373                                                      | The History of American Thought to 1865             |       |
| HSTA 377                                                      | Alcohol in American History                         |       |
| HSTA 380                                                      | American Constitutional History                     |       |
| HSTA 382                                                      | History of American Law                             |       |
| HSTA 385                                                      | Families & Children in America                      |       |
| HSTA 391                                                      | Special Topics                                      |       |
| HSTA 415                                                      | The Black Radical Tradition                         |       |
| HSTA 417                                                      | Prayer & Civil Rights                               |       |
| HSTA 461                                                      | Research in Montana History                         |       |
| HSTA 471                                                      | Writing Women's Lives                               |       |

|                                                               |                                                                 |
|---------------------------------------------------------------|-----------------------------------------------------------------|
| HSTA 491                                                      | Special topics                                                  |
| HSTA 494                                                      | Seminar                                                         |
| HSTR 300                                                      | Writing For History                                             |
| HSTR 364                                                      | Environmental History                                           |
| HSTR 369                                                      | 20th Century American West                                      |
| HSTR 400                                                      | Historical Research Seminar                                     |
| <b>World History Electives <sup>2</sup></b>                   |                                                                 |
| Complete 9 credits of the following courses:                  |                                                                 |
| HSTR 191                                                      | Special Topics                                                  |
| HSTR 210E                                                     | History of the Bible                                            |
| HSTR 211L                                                     | Early Christianity                                              |
| HSTR 221H                                                     | God- Past, Puzzle, Present                                      |
| HSTR 230H                                                     | Colonial Latin America                                          |
| HSTR 231H                                                     | Modern Latin America                                            |
| HSTR 240H                                                     | East Asian Civilizations                                        |
| HSTR 262H                                                     | Islamic Civilization: Classical Age                             |
| HSTR 272E                                                     | Terrorism: Violence in the Modern World                         |
| HSTR 291                                                      | Special Topics                                                  |
| HSTR 300                                                      | Writing For History                                             |
| HSTR 309                                                      | The First Historians                                            |
| HSTR 313                                                      | Religion and Violence                                           |
| HSTR 314                                                      | Origins of Western Religion                                     |
| HSTR 319                                                      | Prophets and Prophecy                                           |
| HSTR 334                                                      | Latin America: Reform & Revolution                              |
| HSTR 335                                                      | Latin America: Workers & Labor                                  |
| HSTR 337                                                      | The History of Capitalism in Latin America, 1492 to the Present |
| HSTR 338                                                      | The History of Democracy in Latin America                       |
| HSTR 365                                                      | History of the Ancient Near East                                |
| HSTR 368                                                      | Iran Between Two Revolutions                                    |
| HSTR 386                                                      | Nationalism and the Modern Middle East                          |
| HSTR 391                                                      | Special Topics                                                  |
| HSTR 392                                                      | Independent Study                                               |
| HSTR 400                                                      | Historical Research Seminar                                     |
| HSTR 435                                                      | Latin American Human Rights & Memory                            |
| HSTR 437                                                      | US-Latin America Relations                                      |
| HSTR 441                                                      | Islam and the West                                              |
| HSTR 448                                                      | Tradition & Reform in China                                     |
| HSTR 491                                                      | Special Topics                                                  |
| HSTR 492                                                      | Independent Study                                               |
| PSCI 311                                                      | Revolution & Reform in Modern China                             |
| <b>European Upper-Division History Electives <sup>3</sup></b> |                                                                 |
| Complete 6 credits of the following courses:                  |                                                                 |
| HSTR 300                                                      | Writing For History                                             |
| HSTR 302H                                                     | Ancient Greece                                                  |
| HSTR 303                                                      | Alexander the Great and the Hellenistic World                   |
| HSTR 304H                                                     | Ancient Rome                                                    |
| HSTR 312                                                      | Age of Absolutism 1648-1789                                     |
| HSTR 315                                                      | Reformation                                                     |
| HSTR 321                                                      | The Roman Empire                                                |
| HSTR 323                                                      | European Social and Intellectual History: The 19th Century      |



|          |                                                            |
|----------|------------------------------------------------------------|
| HSTR 325 | European Social and Intellectual History: The 20th Century |
| HSTR 326 | Contemporary Europe                                        |
| HSTR 348 | Britain 1485-1688                                          |
| HSTR 349 | Britain from Revolution to Reform 1688                     |
| HSTR 350 | Modern Britain                                             |
| HSTR 351 | Democracy: Ancient to Modern                               |
| HSTR 353 | Modern France                                              |
| HSTR 354 | Italy: 1300-1800                                           |
| HSTR 355 | Italy: 1800-Present                                        |
| HSTR 356 | The Age of Revolutions 1760-1848                           |
| HSTR 357 | Russia to 1881                                             |
| HSTR 358 | Russia Since 1881                                          |
| HSTR 361 | Germany: Augsburg-Bismarck                                 |
| HSTR 363 | Eastern Europe                                             |
| HSTR 370 | Practicing Oral History                                    |
| HSTR 377 | European Internal Relations                                |
| HSTR 401 | The Great Historians                                       |

**Writing in the Disciplines Requirement for History**

Complete one of the following courses: 3

|          |                                                         |
|----------|---------------------------------------------------------|
| HSTA 405 | Public Problems & United States Democracy               |
| HSTA 415 | The Black Radical Tradition                             |
| HSTA 417 | Prayer & Civil Rights                                   |
| HSTA 427 | Freedom, Slavery, Equality: Early American Perspectives |
| HSTA 461 | Research in Montana History                             |
| HSTA 463 | Research in 19th-20th Century Native American History   |
| HSTA 471 | Writing Women's Lives                                   |
| HSTR 400 | Historical Research Seminar                             |
| HSTR 437 | US-Latin America Relations                              |

**Upper-Division History Electives**

Complete two additional HSTA or HSTR courses at the 300-level and above. 6

**Teaching Methods Requirement**

Complete the following course:

|         |                                                       |   |
|---------|-------------------------------------------------------|---|
| EDU 497 | Teaching and Assessing (Methods: 5-12 Social Studies) | 4 |
|---------|-------------------------------------------------------|---|

**Total Hours** 46

<sup>1</sup> Courses with American history content offered in other departments may count toward the History major with consent of the History Department Chair.

<sup>2</sup> Courses with World history content offered in other departments may count toward the History major with consent of the History Department Chair.

<sup>3</sup> Courses with European history content offered in other departments may count toward the History major with consent of the History Department Chair.

**Secondary Teaching Licensure**

For endorsement to teach this subject, a student also must gain admission to the Teacher Education Program and meet all the

requirements for secondary teaching licensure (p. 151). For more information, see the Teaching and Learning Department webpage (<https://www.umt.edu/education/departments/currinst/default.php>).

**History-Political Science B.A.**

This major is intended solely for students who want to be licensed to teach history, government, and one additional social science at the middle and high school levels.

Individuals interested in teaching in K-12 schools must complete a degree in the content area they want to teach plus the Teacher Education Program through the Department of Teaching and Learning. Individuals must complete the teaching track within that degree program, which may contain different course requirements than the academic major since the sequence of courses is designed to meet state standards. Upon completion of the degree program with the teaching track and the secondary licensure program, students will be eligible for a standard Montana teaching license in this content area.

- Secondary Education Licensure Program (<https://www.umt.edu/education/departments/teaching-and-learning/tep/>)
- Licensure Degree Requirements (p. 151)

**General Degree Requirements**

To earn a baccalaureate degree, all students must complete successfully, in addition to any other requirements, the University of Montana General Education Requirements. Please refer to the General Education Requirements page (p. 39) for more information.

Additional requirements for graduation can be found on the Degree/Certificate Requirements for Graduation page (p. 36).

Unless otherwise noted in individual program requirements, a minimum grade point average of 2.00 in all work attempted at the University of Montana-Missoula is required for graduation. Please see the Academic Policies and Procedures page (p. 25) for information on how your GPA is calculated.

Courses taken to satisfy the requirements of a major, minor, or certificate program must be completed with a grade of C- or better unless a higher grade is noted in the program requirements.

**Bachelor of Arts - History-Political Science**

- Students must be formally admitted to the Teacher Education Program and complete all of the professional education licensure requirements. Students are eligible for a teaching license in social studies broadfield. See the Department of Teaching and Learning for more information.

**Course Requirements**

| Code                                            | Title                     | Hours |
|-------------------------------------------------|---------------------------|-------|
| <b>Lower-Division Core History Requirements</b> |                           |       |
| Complete all of the following courses:          |                           |       |
| HSTA 255                                        | Montana History           | 3     |
| HSTR 200                                        | Intro: Historical Methods | 1     |
| <b>American History Introductory Courses</b>    |                           |       |
| Complete two of the following courses:          |                           | 8     |

|                                               |                                                     |   |
|-----------------------------------------------|-----------------------------------------------------|---|
| HSTA 101H                                     | American History I                                  |   |
|                                               | or HSTA 103H Honors American History I              |   |
| HSTA 102H                                     | American History II                                 |   |
|                                               | or HSTA 104H Honors American History II             |   |
| <b>Western History Introductory Courses</b>   |                                                     |   |
| Complete one of the following courses:        |                                                     | 4 |
| HSTR 101H                                     | Western Civilization I                              |   |
|                                               | or HSTR 103H Honors Western Civilization I          |   |
| HSTR 102H                                     | Western Civilization II                             |   |
|                                               | or HSTR 104H Honors Western Civilization II         |   |
| <b>American History Elective <sup>1</sup></b> |                                                     |   |
| Complete 3 credits of the following courses:  |                                                     | 3 |
| HSTA 307Y                                     | The American Revolution and Founding Era            |   |
| HSTA 315                                      | Early American Republic                             |   |
| HSTA 316                                      | American Civil War Era                              |   |
| HSTA 320                                      | Birth of Modern US                                  |   |
| HSTA 321                                      | America in Crisis                                   |   |
| HSTA 322                                      | U.S. History: WWII to Present                       |   |
| HSTA 323                                      | U.S. in the 1950s                                   |   |
| HSTA 324                                      | U.S. in the 1960s                                   |   |
| HSTA 333                                      | American Military History                           |   |
| HSTA 335                                      | Movie America                                       |   |
| HSTA 342H                                     | African American History to 1865                    |   |
| HSTA 343H                                     | African American History Since 1865                 |   |
| HSTA 347                                      | Voodoo, Muslim, Church: Black Religion              |   |
| HSTA 344                                      | African-American Struggle for Equality              |   |
| HSTA 361                                      | The American South                                  |   |
| HSTA 370H                                     | Women in America: Colonial Period to Civil War      |   |
| HSTA 371H                                     | Women in America: From the Civil War to the Present |   |
| HSTA 373                                      | The History of American Thought to 1865             |   |
| HSTA 377                                      | Alcohol in American History                         |   |
| HSTA 380                                      | American Constitutional History                     |   |
| HSTA 382                                      | History of American Law                             |   |
| HSTA 385                                      | Families & Children in America                      |   |
| HSTA 391                                      | Special Topics                                      |   |
| HSTA 415                                      | The Black Radical Tradition                         |   |
| HSTA 417                                      | Prayer & Civil Rights                               |   |
| HSTA 461                                      | Research in Montana History                         |   |
| HSTA 471                                      | Writing Women's Lives                               |   |
| HSTA 491                                      | Special topics                                      |   |
| HSTA 494                                      | Seminar                                             |   |
| HSTR 300                                      | Writing For History                                 |   |
| HSTR 364                                      | Environmental History                               |   |
| HSTR 369                                      | 20th Century American West                          |   |
| HSTR 400                                      | Historical Research Seminar                         |   |
| <b>World History Elective <sup>2</sup></b>    |                                                     |   |
| Complete 3 credits of the following courses:  |                                                     | 3 |
| ANTY 141H                                     | The Silk Road                                       |   |
| HSTR 191                                      | Special Topics                                      |   |
| HSTR 210E                                     | History of the Bible                                |   |

|                                               |                                                                 |   |
|-----------------------------------------------|-----------------------------------------------------------------|---|
| HSTR 211L                                     | Early Christianity                                              |   |
| HSTR 221H                                     | God- Past, Puzzle, Present                                      |   |
| HSTR 230H                                     | Colonial Latin America                                          |   |
| HSTR 231H                                     | Modern Latin America                                            |   |
| HSTR 240H                                     | East Asian Civilizations                                        |   |
| HSTR 262H                                     | Islamic Civilization: Classical Age                             |   |
| HSTR 272E                                     | Terrorism: Violence in the Modern World                         |   |
| HSTR 291                                      | Special Topics                                                  |   |
| HSTR 300                                      | Writing For History                                             |   |
| HSTR 309                                      | The First Historians                                            |   |
| HSTR 313                                      | Religion and Violence                                           |   |
| HSTR 314                                      | Origins of Western Religion                                     |   |
| HSTR 319                                      | Prophets and Prophecy                                           |   |
| HSTR 334                                      | Latin America: Reform & Revolution                              |   |
| HSTR 335                                      | Latin America: Workers & Labor                                  |   |
| HSTR 337                                      | The History of Capitalism in Latin America, 1492 to the Present |   |
| HSTR 338                                      | The History of Democracy in Latin America                       |   |
| HSTR 365                                      | History of the Ancient Near East                                |   |
| HSTR 368                                      | Iran Between Two Revolutions                                    |   |
| HSTR 386                                      | Nationalism and the Modern Middle East                          |   |
| HSTR 391                                      | Special Topics                                                  |   |
| HSTR 392                                      | Independent Study                                               |   |
| HSTR 400                                      | Historical Research Seminar                                     |   |
| HSTR 435                                      | Latin American Human Rights & Memory                            |   |
| HSTR 437                                      | US-Latin America Relations                                      |   |
| HSTR 441                                      | Islam and the West                                              |   |
| HSTR 448                                      | Tradition & Reform in China                                     |   |
| HSTR 491                                      | Special Topics                                                  |   |
| HSTR 492                                      | Independent Study                                               |   |
| PSCI 311                                      | Revolution & Reform in Modern China                             |   |
| <b>European History Elective <sup>3</sup></b> |                                                                 |   |
| Complete 3 credits of the following courses:  |                                                                 | 3 |
| HSTR 300                                      | Writing For History                                             |   |
| HSTR 302H                                     | Ancient Greece                                                  |   |
| HSTR 303                                      | Alexander the Great and the Hellenistic World                   |   |
| HSTR 304H                                     | Ancient Rome                                                    |   |
| HSTR 312                                      | Age of Absolutism 1648-1789                                     |   |
| HSTR 315                                      | Reformation                                                     |   |
| HSTR 321                                      | The Roman Empire                                                |   |
| HSTR 323                                      | European Social and Intellectual History: The 19th Century      |   |
| HSTR 325                                      | European Social and Intellectual History: The 20th Century      |   |
| HSTR 326                                      | Contemporary Europe                                             |   |
| HSTR 348                                      | Britain 1485-1688                                               |   |
| HSTR 349                                      | Britain from Revolution to Reform 1688                          |   |
| HSTR 350                                      | Modern Britain                                                  |   |
| HSTR 351                                      | Democracy: Ancient to Modern                                    |   |
| HSTR 353                                      | Modern France                                                   |   |
| HSTR 354                                      | Italy: 1300-1800                                                |   |
| HSTR 355                                      | Italy: 1800-Present                                             |   |

|          |                                  |
|----------|----------------------------------|
| HSTR 356 | The Age of Revolutions 1760-1848 |
| HSTR 357 | Russia to 1881                   |
| HSTR 358 | Russia Since 1881                |
| HSTR 361 | Germany: Augsburg-Bismarck       |
| HSTR 363 | Eastern Europe                   |
| HSTR 370 | Practicing Oral History          |
| HSTR 377 | European Internal Relations      |
| HSTR 401 | The Great Historians             |

**Advanced Writing in History Requirement**

Complete one of the following courses: 3

|          |                             |
|----------|-----------------------------|
| HSTA 415 | The Black Radical Tradition |
| HSTA 417 | Prayer & Civil Rights       |
| HSTA 461 | Research in Montana History |
| HSTA 471 | Writing Women's Lives       |
| HSTR 400 | Historical Research Seminar |
| HSTR 437 | US-Latin America Relations  |

**Lower-Division Core Political Science Requirements**

Complete all of the following courses:

|           |                                  |   |
|-----------|----------------------------------|---|
| PSCI 210S | Intro to American Government     | 3 |
| PSCI 220S | Intro to Comparative Government  | 3 |
| PSCI 230X | Intro to International Relations | 3 |
| PSCI 250E | Intro to Political Theory        | 3 |

**American Government/Public Law Electives**

Complete 9 credits of the following courses: 9

|           |                                            |
|-----------|--------------------------------------------|
| PSCI 340  | Experimental Offering: American Government |
| PSCI 342  | Media, Public Opinion, Polling             |
| PSCI 344  | State and Local Government                 |
| PSCI 345  | American Political System                  |
| PSCI 348  | US Multicultural Politics                  |
| PSCI 352Y | American Political Thought                 |
| PSCI 365  | Public Policy Issues and Analysis          |
| PSCI 370  | Courts and Judicial Politics               |
| PSCI 433  | International Law & Organization           |
| PSCI 440  | Experimental Offering: American Government |
| PSCI 443  | Politics of Social Movements               |
| PSCI 444  | American Political Participation           |
| PSCI 445  | Political Psychology                       |
| PSCI 471  | American Constitutional Law                |
| PSCI 474  | Civil Rights                               |

**Comparative/International Relations Electives**

Complete 9 credits of the following courses: 9

|          |                                                |
|----------|------------------------------------------------|
| PSCI 311 | Revolution & Reform in Modern China            |
| PSCI 320 | Experimental Offering: Comparative Politics    |
| PSCI 322 | Politics of Europe                             |
| PSCI 325 | Politics of Latin America                      |
| PSCI 326 | Politics of Africa                             |
| PSCI 327 | Politics of Mexico                             |
| PSCI 328 | Politics of China                              |
| PSCI 330 | Experimental Offering: International Relations |
| PSCI 332 | Global Environmental Politics                  |

|          |                                                |
|----------|------------------------------------------------|
| PSCI 334 | International Security                         |
| PSCI 335 | American Foreign Policy                        |
| PSCI 336 | European Union                                 |
| PSCI 337 | Model United Nations                           |
| PSCI 381 | State Formation                                |
| PSCI 420 | Experimental Offering: Comparative Politics    |
| PSCI 430 | Experimental Offering: International Relations |
| PSCI 431 | Politics of Global Migration                   |
| PSCI 463 | Development Administration                     |
| PSCI 481 | Origins of Democracy and Authoritarianism      |
| PSCI 482 | Politics of the World Economy                  |

**Additional Social Science Field Electives**

Complete 9 credits of courses in any one of the following fields: 9

|                                |
|--------------------------------|
| Anthropology (ANTY)            |
| Economics (ECNS)               |
| Geography (GPHY)               |
| Native American Studies (NASX) |
| Psychology (PSYX)              |
| Sociology (SOCL)               |

**Education Methods**

Complete the following course:

|         |                                                       |   |
|---------|-------------------------------------------------------|---|
| EDU 497 | Teaching and Assessing (Methods: 5-12 Social Studies) | 4 |
|---------|-------------------------------------------------------|---|

**Total Hours** 71

<sup>1</sup> Courses with American history content offered in other departments may count toward the History major with consent of the History Department Chair.

<sup>2</sup> Courses with World history content offered in other departments may count toward the History major with consent of the History Department Chair.

<sup>3</sup> Courses with European history content offered in other departments may count toward the History major with consent of the History Department Chair.

**Secondary Teaching Licensure**

For endorsement to teach this subject, a student also must gain admission to the Teacher Education Program and meet all the requirements for secondary teaching licensure (p. 151). For more information, see the Teaching and Learning Department webpage (<https://www.umd.edu/education/departments/currinst/default.php>).

**History Minor****Minor - History****Course Requirements**

| Code                                                                                                      | Title | Hours     |
|-----------------------------------------------------------------------------------------------------------|-------|-----------|
| <b>Complete 18 elective credits of the following courses, at least 9 of which must be upper-division:</b> |       | <b>18</b> |
| Any course with the HSTR subject code                                                                     |       |           |
| Any course with the HSTA subject code                                                                     |       |           |

|                    |                                     |
|--------------------|-------------------------------------|
| PSCI 311           | Revolution & Reform in Modern China |
| <b>Total Hours</b> | <b>18</b>                           |

## History Education Minor

- This minor contains course requirements designed to meet state standards. Those interested in teaching in K-12 schools must complete the education/teaching concentration of a major in a teaching content area plus the Teacher Education Program through the Department of Teaching and Learning. Additional teaching areas can be added through completion of the education/teaching concentration of a major or education/teaching minor in that content area.
  - Secondary Education Licensure Program (<https://www.umt.edu/education/departments/teaching-and-learning/tep/>)
  - Licensure Degree Requirements (p. 151)
- To complete this teaching track, you need to contact the Teaching and Learning Department. Approvals for this track must come from the Teaching and Learning Department.
- Individuals completing this minor must also complete the education/teaching concentration of a major in another teaching content area.

## General Degree Requirements

To earn a baccalaureate degree, all students must complete successfully, in addition to any other requirements, the University of Montana General Education Requirements. Please refer to the General Education Requirements page (p. 39) for more information.

Additional requirements for graduation can be found on the Degree/Certificate Requirements for Graduation page (p. 36).

Unless otherwise noted in individual program requirements, a minimum grade point average of 2.00 in all work attempted at the University of Montana-Missoula is required for graduation. Please see the Academic Policies and Procedures page (p. 25) for information on how your GPA is calculated.

Courses taken to satisfy the requirements of a major, minor, or certificate program must be completed with a grade of C- or better unless a higher grade is noted in the program requirements.

## Minor - History Education

### Course Requirements

| Code                                   | Title                     | Hours |
|----------------------------------------|---------------------------|-------|
| <b>Lower-Division Core Courses</b>     |                           |       |
| Complete one of the following courses: |                           | 4     |
| HSTA 101H/103H                         | American History I        |       |
| HSTA 102H/104H                         | American History II       |       |
| Complete one of the following courses: |                           | 4     |
| HSTR 101H/103H                         | Western Civilization I    |       |
| HSTR 102H/104H                         | Western Civilization II   |       |
| Complete all of the following courses: |                           |       |
| HSTA 255                               | Montana History           | 3     |
| HSTR 200                               | Intro: Historical Methods | 1     |

### World History Electives <sup>1</sup>

|                                              |                                                                 |   |
|----------------------------------------------|-----------------------------------------------------------------|---|
| Complete 3 credits of the following courses: |                                                                 | 3 |
| HSTR 191                                     | Special Topics                                                  |   |
| HSTR 210E                                    | History of the Bible                                            |   |
| HSTR 211L                                    | Early Christianity                                              |   |
| HSTR 221H                                    | God- Past, Puzzle, Present                                      |   |
| HSTR 230H                                    | Colonial Latin America                                          |   |
| HSTR 231H                                    | Modern Latin America                                            |   |
| HSTR 240H                                    | East Asian Civilizations                                        |   |
| HSTR 262H                                    | Islamic Civilization: Classical Age                             |   |
| HSTR 272E                                    | Terrorism: Violence in the Modern World                         |   |
| HSTR 291                                     | Special Topics                                                  |   |
| HSTR 300                                     | Writing For History                                             |   |
| HSTR 309                                     | The First Historians                                            |   |
| HSTR 313                                     | Religion and Violence                                           |   |
| HSTR 314                                     | Origins of Western Religion                                     |   |
| HSTR 319                                     | Prophets and Prophecy                                           |   |
| HSTR 334                                     | Latin America: Reform & Revolution                              |   |
| HSTR 335                                     | Latin America: Workers & Labor                                  |   |
| HSTR 337                                     | The History of Capitalism in Latin America, 1492 to the Present |   |
| HSTR 338                                     | The History of Democracy in Latin America                       |   |
| HSTR 365                                     | History of the Ancient Near East                                |   |
| HSTR 368                                     | Iran Between Two Revolutions                                    |   |
| HSTR 391                                     | Special Topics                                                  |   |
| HSTR 392                                     | Independent Study                                               |   |
| HSTR 400                                     | Historical Research Seminar                                     |   |
| HSTR 435                                     | Latin American Human Rights & Memory                            |   |
| HSTR 437                                     | US-Latin America Relations                                      |   |
| HSTR 441                                     | Islam and the West                                              |   |
| HSTR 448                                     | Tradition & Reform in China                                     |   |
| HSTR 491                                     | Special Topics                                                  |   |
| HSTR 492                                     | Independent Study                                               |   |
| PSCI 311                                     | Revolution & Reform in Modern China                             |   |

### History Upper-Division Electives <sup>2</sup>

|                                              |                                                     |   |
|----------------------------------------------|-----------------------------------------------------|---|
| Complete 6 credits of the following courses: |                                                     | 6 |
| HSTA 316                                     | American Civil War Era                              |   |
| HSTA 320                                     | Birth of Modern US                                  |   |
| HSTA 321                                     | America in Crisis                                   |   |
| HSTA 322                                     | U.S. History: WWII to Present                       |   |
| HSTA 323                                     | U.S. in the 1950s                                   |   |
| HSTA 324                                     | U.S. in the 1960s                                   |   |
| HSTA 333                                     | American Military History                           |   |
| HSTA 335                                     | Movie America                                       |   |
| HSTA 342H                                    | African American History to 1865                    |   |
| HSTA 343H                                    | African American History Since 1865                 |   |
| HSTA 344                                     | African-American Struggle for Equality              |   |
| HSTA 347                                     | Voodoo, Muslim, Church: Black Religion              |   |
| HSTA 361                                     | The American South                                  |   |
| HSTA 370H                                    | Women in America: Colonial Period to Civil War      |   |
| HSTA 371H                                    | Women in America: From the Civil War to the Present |   |

|           |                                                                 |
|-----------|-----------------------------------------------------------------|
| HSTA 373  | The History of American Thought to 1865                         |
| HSTA 377  | Alcohol in American History                                     |
| HSTA 380  | American Constitutional History                                 |
| HSTA 382  | History of American Law                                         |
| HSTA 385  | Families & Children in America                                  |
| HSTA 391  | Special Topics                                                  |
| HSTA 415  | The Black Radical Tradition                                     |
| HSTA 417  | Prayer & Civil Rights                                           |
| HSTA 461  | Research in Montana History                                     |
| HSTA 471  | Writing Women's Lives                                           |
| HSTA 491  | Special topics                                                  |
| HSTA 494  | Seminar                                                         |
| HSTR 300  | Writing For History                                             |
| HSTR 302H | Ancient Greece                                                  |
| HSTR 303  | Alexander the Great and the Hellenistic World                   |
| HSTR 304H | Ancient Rome                                                    |
| HSTR 309  | The First Historians                                            |
| HSTR 312  | Age of Absolutism 1648-1789                                     |
| HSTR 313  | Religion and Violence                                           |
| HSTR 314  | Origins of Western Religion                                     |
| HSTR 315  | Reformation                                                     |
| HSTR 319  | Prophets and Prophecy                                           |
| HSTR 321  | The Roman Empire                                                |
| HSTR 323  | European Social and Intellectual History: The 19th Century      |
| HSTR 325  | European Social and Intellectual History: The 20th Century      |
| HSTR 326  | Contemporary Europe                                             |
| HSTR 334  | Latin America: Reform & Revolution                              |
| HSTR 335  | Latin America: Workers & Labor                                  |
| HSTR 337  | The History of Capitalism in Latin America, 1492 to the Present |
| HSTR 338  | The History of Democracy in Latin America                       |
| HSTR 348  | Britain 1485-1688                                               |
| HSTR 349  | Britain from Revolution to Reform 1688                          |
| HSTR 350  | Modern Britain                                                  |
| HSTR 351  | Democracy: Ancient to Modern                                    |
| HSTR 353  | Modern France                                                   |
| HSTR 354  | Italy: 1300-1800                                                |
| HSTR 355  | Italy: 1800-Present                                             |
| HSTR 356  | The Age of Revolutions 1760-1848                                |
| HSTR 357  | Russia to 1881                                                  |
| HSTR 358  | Russia Since 1881                                               |
| HSTR 361  | Germany: Augsburg-Bismarck                                      |
| HSTR 363  | Eastern Europe                                                  |
| HSTR 365  | History of the Ancient Near East                                |
| HSTR 368  | Iran Between Two Revolutions                                    |
| HSTR 369  | 20th Century American West                                      |
| HSTR 370  | Practicing Oral History                                         |
| HSTR 377  | European Internal Relations                                     |
| HSTR 391  | Special Topics                                                  |
| HSTR 400  | Historical Research Seminar                                     |

|          |                                      |
|----------|--------------------------------------|
| HSTR 401 | The Great Historians                 |
| HSTR 435 | Latin American Human Rights & Memory |
| HSTR 437 | US-Latin America Relations           |
| HSTR 441 | Islam and the West                   |
| HSTR 448 | Tradition & Reform in China          |
| HSTR 491 | Special Topics                       |
| HSTR 492 | Independent Study                    |
| PSCI 311 | Revolution & Reform in Modern China  |

**Teaching Methods Requirement**

Complete the following course:

|         |                                                       |   |
|---------|-------------------------------------------------------|---|
| EDU 497 | Teaching and Assessing (Methods: 5-12 Social Studies) | 4 |
|---------|-------------------------------------------------------|---|

**Total Hours** **25**

<sup>1</sup> Courses with World history content offered in other departments may count toward the History minor with consent of the History Department Chair.

<sup>2</sup> Courses with American or European history content offered in other departments may count toward the History minor with consent of the History Department Chair.

**Secondary Teaching Licensure**

For endorsement to teach this subject, a student also must gain admission to the Teacher Education Program and meet all the requirements for secondary teaching licensure (p. 151). For more information, see the Teaching and Learning Department webpage (<https://www.umd.edu/education/departments/currinst/default.php>).

## History of Religions Certificate

### General Certificate Requirements

Additional requirements for graduation can be found on the Degree/Certificate Requirements for Graduation page (p. 36).

Unless otherwise noted in individual program requirements, a minimum grade point average of 2.00 in all work attempted at the University of Montana-Missoula is required for graduation. Please see the Academic Policies and Procedures page (p. 25) for information on how your GPA is calculated.

Courses taken to satisfy the requirements of a major, minor, or certificate program must be completed with a grade of C- or better unless a higher grade is noted in the program requirements.

## Post-Secondary Certificate - History of Religions

### Course Requirements

| Code                                       | Title                      | Hours |
|--------------------------------------------|----------------------------|-------|
| <b>Core Courses</b>                        |                            |       |
| Complete two of the following courses:     |                            | 6     |
| HSTR 101H                                  | Western Civilization I     |       |
| or HSTR 103H Honors Western Civilization I |                            |       |
| HSTR 210E                                  | History of the Bible       |       |
| HSTR 221H                                  | God- Past, Puzzle, Present |       |
| <b>Electives</b> <sup>1</sup>              |                            |       |



|                                                    |           |
|----------------------------------------------------|-----------|
| Complete 6 credits of the following courses:       | 6         |
| HSTA 347    Voodoo, Muslim, Church: Black Religion |           |
| HSTA 417    Prayer & Civil Rights                  |           |
| HSTR 210E    History of the Bible                  |           |
| HSTR 262H    Islamic Civilization: Classical Age   |           |
| HSTR 302H    Ancient Greece                        |           |
| HSTR 304H    Ancient Rome                          |           |
| HSTR 313    Religion and Violence                  |           |
| HSTR 314    Origins of Western Religion            |           |
| HSTR 315    Reformation                            |           |
| HSTR 319    Prophets and Prophecy                  |           |
| HSTR 321    The Roman Empire                       |           |
| HSTR 365    History of the Ancient Near East       |           |
| <b>Total Hours</b>                                 | <b>12</b> |

<sup>1</sup> Special Topics/Experimental courses may count toward the elective requirement with the approval the History Department's Director of Undergraduate Studies.

## Public History Certificate

### General Certificate Requirements

Additional requirements for graduation can be found on the Degree/Certificate Requirements for Graduation page (p. 36).

Unless otherwise noted in individual program requirements, a minimum grade point average of 2.00 in all work attempted at the University of Montana-Missoula is required for graduation. Please see the Academic Policies and Procedures page (p. 25) for information on how your GPA is calculated.

Courses taken to satisfy the requirements of a major, minor, or certificate program must be completed with a grade of C- or better unless a higher grade is noted in the program requirements.

## Post-Secondary Certificate - Public History

Note for transfer students: Transfer students may request that up to six (6) credits taken outside of University of Montana count toward the Certificate in Public History. Transfer students must take at least one of the following courses at the University of Montana: HSTA 275, HSTA 374, HSTR 370, or HSTR 398 (for at least 3 credits).

### Course Requirements

| Code                                         | Title | Hours |
|----------------------------------------------|-------|-------|
| <b>Core Courses</b>                          |       |       |
| Complete all of the following courses:       |       |       |
| HSTA 275    Making History Public            |       | 3     |
| or HSTA 374    Doing Local History: Missoula |       |       |
| HSTR 398    Public History Internship        |       | 3     |
| or HSTR 370    Practicing Oral History       |       |       |
| <b>Electives <sup>1</sup></b>                |       |       |
| Complete 6 credits of the following courses: |       |       |
| ARTH 333H    Architectural History I         |       | 6     |
| ARTH 334H    Architectural History II        |       |       |

|                                                                  |  |
|------------------------------------------------------------------|--|
| ARTH 445    History of Photography                               |  |
| ARTH 584    Museum Studies Seminar                               |  |
| ANTY 398    Internship                                           |  |
| ANTY 403    Public Anthropology                                  |  |
| ANTY 404    Anthropological Museology                            |  |
| ANTY 451    Cultural Resource Management                         |  |
| ANTY 455    Artifact Analysis                                    |  |
| ANTY 456    Historical Archaeology                               |  |
| ANTY 466    Archaeological Survey                                |  |
| ANTY 467    Archaeological Field School                          |  |
| ANTY 495    Field Experience/Practicum                           |  |
| COMX 111A    Introduction to Public Speaking                     |  |
| COMX 140L    Introduction to Visual Rhetoric                     |  |
| FORS 250    Intro to GIS for Forest Mgt                          |  |
| GPHY 284    Intro to GIS and Cartography                         |  |
| HPRV 400    Historic Preservation                                |  |
| HSTA 275    Making History Public                                |  |
| HSTA 326    Digital Worlds of Early America                      |  |
| HSTA 370H    Women in America: Colonial Period to Civil War      |  |
| HSTA 371H    Women in America: From the Civil War to the Present |  |
| HSTA 374    Doing Local History: Missoula                        |  |
| HSTA 377    Alcohol in American History                          |  |
| HSTR 364    Environmental History                                |  |
| HSTR 370    Practicing Oral History                              |  |
| HSTR 398    Public History Internship                            |  |
| HSTR 435    Latin American Human Rights & Memory                 |  |
| JRNL 100H    Journalism and American Society                     |  |
| JRNL 300    First Amendment and Media Law                        |  |
| JRNL 472    Opinion Writing                                      |  |
| NASX 260X    Indigenous Community Development                    |  |
| NASX 280    NA Studies Research Theories and Methods             |  |
| NASX 398    Internship                                           |  |
| PTRM 141Y    National Parks and American Culture                 |  |
| PTRM 210S    Nature Tourism & Commercial Recreation              |  |
| PTRM 217S    Parks & Outdoor Recreation Management               |  |
| PTRM 310    Natural Resource Interpretation and Communication    |  |

**Total Hours** **12**

<sup>1</sup> Three credits of electives must be taken within the History department. Substitutions, including independent studies or special offerings in public history, require approval of the Public History Coordinator.

## Linguistics

Linguistics is the scientific study of language. The BA in linguistics is appropriate for any student who is interested in science or language. Students are introduced to core areas of linguistics (the structure of speech sounds, words, and sentences) as well as a broad range of related topics including language use, development, variation, change, and endangerment. The emphasis throughout is on developing strong data-

analysis and critical-reasoning skills. Recommended areas of study in addition to linguistics are World Languages and Cultures, Anthropology, CSD, English, Communication Studies, Sociology, Education, Information Technology, Environmental Science, Political Science, and Psychology.

- Linguistics B.A. (p. 242)
- Linguistics Minor (p. 243)
- English as a Second Language Certificate (p. 243)

# Linguistics B.A.

## General Degree Requirements

To earn a baccalaureate degree, all students must complete successfully, in addition to any other requirements, the University of Montana General Education Requirements. Please refer to the General Education Requirements page (p. 39) for more information.

Additional requirements for graduation can be found on the Degree/Certificate Requirements for Graduation page (p. 36).

Unless otherwise noted in individual program requirements, a minimum grade point average of 2.00 in all work attempted at the University of Montana-Missoula is required for graduation. Please see the Academic Policies and Procedures page (p. 25) for information on how your GPA is calculated.

Courses taken to satisfy the requirements of a major, minor, or certificate program must be completed with a grade of C- or better unless a higher grade is noted in the program requirements.

## Bachelor of Arts - Linguistics

### Course Requirements

| Code                                                                                                | Title                                            | Hours |
|-----------------------------------------------------------------------------------------------------|--------------------------------------------------|-------|
| <b>Required Core Courses</b>                                                                        |                                                  |       |
| Complete all of the following courses:                                                              |                                                  |       |
| LING 270S                                                                                           | Intro to Linguistics                             | 3     |
| LING 375X                                                                                           | Linguistic Ecology and Language Endangerment     | 3     |
| LING 470                                                                                            | Linguistic Analysis                              | 3     |
| LING 471                                                                                            | Phonetics and Phonology                          | 3     |
| LING 494                                                                                            | Seminar                                          | 3     |
| Complete one of the following courses:                                                              |                                                  | 3     |
| LING 472                                                                                            | Syntax                                           |       |
| LING 489                                                                                            | Morphology                                       |       |
| <b>Language Requirement</b>                                                                         |                                                  |       |
| Complete 8-10 credits (two semesters) of language courses beyond the General Education requirement. |                                                  | 8-10  |
| <b>Linguistics Electives</b>                                                                        |                                                  |       |
| Complete three of the following courses:                                                            |                                                  | 9     |
| LING 472                                                                                            | Syntax (if not taken as a core course)           |       |
| LING 473                                                                                            | Language and Culture                             |       |
| LING 474                                                                                            | Historical Linguistics                           |       |
| LING 475                                                                                            | Linguistic Field Methods                         |       |
| LING 477                                                                                            | Bilingualism                                     |       |
| LING 478                                                                                            | Learner Language                                 |       |
| LING 484                                                                                            | North American Indigenous Language & Linguistics |       |

|                                                                             |                                            |
|-----------------------------------------------------------------------------|--------------------------------------------|
| LING 489                                                                    | Morphology (if not taken as a core course) |
| One of the above LING courses may be substituted with one of the following: |                                            |
| ANTY 476                                                                    | Methods for Native Languages               |
| CSD 210                                                                     | Speech & Language Development              |
| SPNS 305                                                                    | Spanish Phonetics                          |
| SPNS 400                                                                    | Introduction to Spanish Linguistics        |
| WLC 410                                                                     | Methods of Language Teaching               |
| <b>Total Hours</b>                                                          | <b>35-37</b>                               |

## Four Year Plan

Note: 8-10 credits of language coursework are required for this major. Language courses and placement exams taken to satisfy General Education Requirements cannot be used to satisfy the language requirement for the major. Any combination of languages courses can be used to satisfy the major's language requirement, as long as the courses were not also used to satisfy the General Education Requirements for Foreign Language

## Five Year B.A./M.A. Plan (Undergraduate Portion Only)

Students in this program complete a total of 96 undergraduate (UG) credits by Year 3 and apply to the graduate program. If accepted, students take 12 graduate credits in Year 4 as undergraduate, which are transferred to the graduate school in Year 5 (graduate)

| Course                                 | Title                                                                            | Hours     |
|----------------------------------------|----------------------------------------------------------------------------------|-----------|
| <b>Freshman</b>                        |                                                                                  |           |
| <b>Autumn</b>                          |                                                                                  |           |
| LING 270S                              | Intro to Linguistics                                                             | 3         |
| Language for General Education         |                                                                                  | 4         |
| WRIT 101                               | College Writing I                                                                | 4         |
| Math                                   |                                                                                  | 3         |
| COLS 101                               | First Year Seminar                                                               | 2         |
| <b>Hours</b>                           |                                                                                  | <b>16</b> |
| <b>Spring</b>                          |                                                                                  |           |
| Language for General Education         |                                                                                  | 4         |
| General Education Requirements         |                                                                                  | 9         |
| Elective                               |                                                                                  | 3         |
| <b>Hours</b>                           |                                                                                  | <b>16</b> |
| <b>Sophomore</b>                       |                                                                                  |           |
| <b>Autumn</b>                          |                                                                                  |           |
| LING 470                               | Linguistic Analysis                                                              | 3         |
| Language for Major Requirement         |                                                                                  | 4         |
| General Education Requirement          |                                                                                  | 3         |
| Electives                              |                                                                                  | 6         |
| <b>Hours</b>                           |                                                                                  | <b>16</b> |
| <b>Spring</b>                          |                                                                                  |           |
| Language for Major Requirement         |                                                                                  | 4         |
| LING 375X                              | Linguistic Ecology and Language Endangerment (Intermediate Writing) <sup>1</sup> | 3         |
| General Education Requirements         |                                                                                  | 6         |
| Elective                               |                                                                                  | 3         |
| <b>Hours</b>                           |                                                                                  | <b>16</b> |
| <b>Junior</b>                          |                                                                                  |           |
| <b>Autumn</b>                          |                                                                                  |           |
| LING 472                               | Syntax <sup>2</sup>                                                              | 3         |
| or LING 471 or Phonetics and Phonology |                                                                                  |           |
| General Education Requirement          |                                                                                  | 3         |

|                                                                                                     |                                                     |
|-----------------------------------------------------------------------------------------------------|-----------------------------------------------------|
| Elective 300+                                                                                       | 6                                                   |
| Elective                                                                                            | 6                                                   |
| <b>Hours</b>                                                                                        | <b>18</b>                                           |
| <b>Spring</b>                                                                                       |                                                     |
| LING Course - Advanced Writing <sup>3</sup>                                                         | 3                                                   |
| Elective 300+                                                                                       | 6                                                   |
| Elective                                                                                            | 6                                                   |
| Fill out and submit a pre-application form to the Linguistics Program Director                      |                                                     |
| <b>Hours</b>                                                                                        | <b>15</b>                                           |
| <b>Senior</b>                                                                                       |                                                     |
| <b>Autumn</b>                                                                                       |                                                     |
| LING 494                                                                                            | Seminar (Graduate Level) 1-6                        |
| LING 571<br>or LING 572                                                                             | Phonetics and Phonology <sup>2</sup><br>or Syntax 3 |
| LING Elective                                                                                       | 3                                                   |
| Elective                                                                                            | 3                                                   |
| <b>Hours</b>                                                                                        | <b>10-15</b>                                        |
| <b>Spring</b>                                                                                       |                                                     |
| LING 570                                                                                            | Seminar in Linguistics (Graduate Level) 3           |
| LING Elective (Graduate Level)                                                                      | 3                                                   |
| Electives                                                                                           | 6                                                   |
| Apply to Graduate School, Graduate with BA, transfer 12 credits from Year 4 to Grad School (Year 5) |                                                     |
| <b>Hours</b>                                                                                        | <b>12</b>                                           |
| <b>Total Hours</b>                                                                                  | <b>119-124</b>                                      |

*Last Updated Autumn 2023*

<sup>1</sup> LING 375X is the only course in the major that fulfills the Intermediate Writing requirement for General Education

<sup>2</sup> LING 471/LING 571 and LING 472/LING 572 rotate as a fall-only offering and will not be offered in the same year. BA/MA students will take LING 572 in Year 5 (Graduate School)

<sup>3</sup> Advanced Writing can be fulfilled with one of the following Linguistics Electives: LING 473 (Spring only) or LING 484 (Fall only)

## Linguistics Minor

### General Degree Requirements

To earn a baccalaureate degree, all students must complete successfully, in addition to any other requirements, the University of Montana General Education Requirements. Please refer to the General Education Requirements page (p. 39) for more information.

Additional requirements for graduation can be found on the Degree/Certificate Requirements for Graduation page (p. 36).

Unless otherwise noted in individual program requirements, a minimum grade point average of 2.00 in all work attempted at the University of Montana-Missoula is required for graduation. Please see the Academic Policies and Procedures page (p. 25) for information on how your GPA is calculated.

Courses taken to satisfy the requirements of a major, minor, or certificate program must be completed with a grade of C- or better unless a higher grade is noted in the program requirements.

## Minor - Linguistics

### Course Requirements

| Code                                     | Title                                                   | Hours     |
|------------------------------------------|---------------------------------------------------------|-----------|
| <b>Upper-Division Core Courses</b>       |                                                         |           |
| Complete all of the following courses:   |                                                         |           |
| LING 470                                 | Linguistic Analysis                                     | 3         |
| LING 471                                 | Phonetics and Phonology                                 | 3         |
| Complete one of the following courses:   |                                                         |           |
| LING 472                                 | Syntax                                                  | 3         |
| LING 489                                 | Morphology                                              | 3         |
| <b>Electives</b>                         |                                                         |           |
| Complete three of the following courses: |                                                         |           |
| LING 270S                                | Intro to Linguistics                                    | 3         |
| LING 375X                                | Linguistic Ecology and Language Endangerment            | 3         |
| LING 471                                 | Phonetics and Phonology (if not taken as a core course) | 3         |
| LING 472                                 | Syntax (if not taken as a core course)                  | 3         |
| LING 473                                 | Language and Culture                                    | 3         |
| LING 474                                 | Historical Linguistics                                  | 3         |
| LING 475                                 | Linguistic Field Methods                                | 3         |
| LING 477                                 | Bilingualism                                            | 3         |
| LING 478                                 | Learner Language                                        | 3         |
| LING 484                                 | North American Indigenous Language & Linguistics        | 3         |
| LING 489                                 | Morphology (if not taken as a core course)              | 3         |
| <b>Total Hours</b>                       |                                                         | <b>18</b> |

## English as a Second Language Certificate

### General Certificate Requirements

Additional requirements for graduation can be found on the Degree/Certificate Requirements for Graduation page (p. 36).

Unless otherwise noted in individual program requirements, a minimum grade point average of 2.00 in all work attempted at the University of Montana-Missoula is required for graduation. Please see the Academic Policies and Procedures page (p. 25) for information on how your GPA is calculated.

Courses taken to satisfy the requirements of a major, minor, or certificate program must be completed with a grade of C- or better unless a higher grade is noted in the program requirements.

## Post-Secondary Certificate - English as a Second Language

### Course Requirements

| Code                                   | Title                | Hours |
|----------------------------------------|----------------------|-------|
| <b>Core Courses</b>                    |                      |       |
| Complete all of the following courses: |                      |       |
| LING 270S                              | Intro to Linguistics | 3     |
| LING 470                               | Linguistic Analysis  | 3     |

|                                        |                                                         |           |
|----------------------------------------|---------------------------------------------------------|-----------|
| WLC 410                                | Methods of Language Teaching                            | 3         |
| Complete one of the following courses: |                                                         | 3         |
| LING 477                               | Bilingualism                                            |           |
| LING 478                               | Learner Language                                        |           |
| Complete one of the following courses: |                                                         | 3         |
| LING 471                               | Phonetics and Phonology                                 |           |
| LING 472                               | Syntax                                                  |           |
| LING 489                               | Morphology                                              |           |
| <b>Electives</b>                       |                                                         |           |
| Complete one of the following courses: |                                                         | 3         |
| LING 471                               | Phonetics and Phonology (if not taken as a core course) |           |
| LING 472                               | Syntax (if not taken as a core course)                  |           |
| LING 473                               | Language and Culture                                    |           |
| LING 477                               | Bilingualism (if not taken as a core course)            |           |
| LING 478                               | Learner Language (if not taken as a core course)        |           |
| LING 489                               | Morphology (if not taken as a core course)              |           |
| <b>Total Hours</b>                     |                                                         | <b>18</b> |

## Multidisciplinary Studies B.A.

The Bachelor of Arts in Multidisciplinary Studies at the University of Montana is intended for students seeking to complete a flexible Bachelor's degree with coursework from departments across the university, providing each student an opportunity to reach beyond disciplinary boundaries and to create a degree program that is tailored to meet their unique education and career goals. The multidisciplinary nature of the program is designed to develop students' ability to combine different fields into a structured format and is meant to encourage and support creativity, innovation, critical thinking, and integrative and experiential learning.

### General Degree Requirements

To earn a baccalaureate degree, all students must complete successfully, in addition to any other requirements, the University of Montana General Education Requirements. Please refer to the General Education Requirements page (p. 39) for more information.

Additional requirements for graduation can be found on the Degree/Certificate Requirements for Graduation page (p. 36).

Unless otherwise noted in individual program requirements, a minimum grade point average of 2.00 in all work attempted at the University of Montana-Missoula is required for graduation. Please see the Academic Policies and Procedures page (p. 25) for information on how your GPA is calculated.

Courses taken to satisfy the requirements of a major, minor, or certificate program must be completed with a grade of C- or better unless a higher grade is noted in the program requirements.

## Bachelor of Arts - Multidisciplinary Studies

As part of the curriculum, students must develop a degree plan tailored to their academic and professional goals. Students will initially meet with an academic advisor from the College of Humanities & Sciences Advising

Center who will assist the student in developing a proposed degree plan curriculum which must satisfy each of the following requirements:

- Earn at least 120 credits with a cumulative grade point average of 2.0 or better.
- A minimum of 30 credits must be earned from the University of Montana-Missoula
- Satisfy the University of Montana General Education requirements
  - The University of Montana will accept transfer students with completed AA or AS degrees from other regionally accredited institutions as having fulfilled their UM general education requirements.
- Complete a Multidisciplinary Studies Track, including a minimum of 39 upper division credits which satisfies the following:
  - The Track represents a cohesive set of courses from at least two different academic disciplines, with:
    - at least 15 upper division credits in one of these disciplines;
    - at least 3 of the upper division credits in a senior level capstone experience to be determined in consultation with an academic advisor (i.e. capstone, internship, applied research project, thesis, etc.)
- The Track must be approved through one of the following:
  - A committee of at least 3 faculty representatives from the academic disciplines integrated into the Track;
  - OR: A pre-approved Multidisciplinary Studies Track that has been developed in consultation with faculty from multiple disciplines, and approved by the Dean of the College of Humanities & Sciences.
- A grade of "C-" or higher must be earned in all courses in the Track.

## Four Year Plan

Students interested in pursuing Multidisciplinary Studies (MLTD) should focus on General Education Requirements and explore courses until they have earned 45 credits — then begin developing an MLTD plan for approval.

| Course                                                    | Title              | Hours     |
|-----------------------------------------------------------|--------------------|-----------|
| <b>Freshman</b>                                           |                    |           |
| <b>Autumn</b>                                             |                    |           |
| General Education Requirements                            |                    | 6         |
| WRIT 101                                                  | College Writing I  | 4         |
| Modern or Classical Language (first semester)             |                    | 4         |
| COLS 101                                                  | First Year Seminar | 2         |
| <b>Hours</b>                                              |                    | <b>16</b> |
| <b>Spring</b>                                             |                    |           |
| General Education Requirements                            |                    | 6         |
| Modern or Classical Language (second semester)            |                    | 4         |
| Electives                                                 |                    | 6         |
| <b>Hours</b>                                              |                    | <b>16</b> |
| <b>Sophomore</b>                                          |                    |           |
| <b>Autumn</b>                                             |                    |           |
| General Education Requirements                            |                    | 9         |
| Intermediate Writing Course                               |                    | 3         |
| Elective                                                  |                    | 3         |
| <b>Hours</b>                                              |                    | <b>15</b> |
| <b>Spring</b>                                             |                    |           |
| Approved Multidisciplinary Studies Upper Division Courses |                    | 6         |
| General Education Requirements                            |                    | 9         |
| <b>Hours</b>                                              |                    | <b>15</b> |

|                                                           |            |
|-----------------------------------------------------------|------------|
| <b>Junior</b>                                             |            |
| <b>Autumn</b>                                             |            |
| Approved Multidisciplinary Studies Upper Division Courses | 9          |
| Electives                                                 | 6          |
| <b>Hours</b>                                              | <b>15</b>  |
| <b>Spring</b>                                             |            |
| Approved Multidisciplinary Studies Upper Division Courses | 9          |
| Electives                                                 | 6          |
| <b>Hours</b>                                              | <b>15</b>  |
| <b>Senior</b>                                             |            |
| <b>Autumn</b>                                             |            |
| Advanced Writing Course                                   | 3          |
| Approved Multidisciplinary Studies Upper Division Courses | 6          |
| Electives                                                 | 6          |
| <b>Hours</b>                                              | <b>15</b>  |
| <b>Spring</b>                                             |            |
| Approved Multidisciplinary Studies Upper Division Courses | 6          |
| Upper Division Elective                                   | 3          |
| Electives                                                 | 6          |
| <b>Hours</b>                                              | <b>15</b>  |
| <b>Total Hours</b>                                        | <b>122</b> |

*Last updated Autumn 2024*

## Native American Studies

The Native American Studies Department at the University of Montana builds its curriculum on the foundation of three interrelated principles: sovereignty, indigeneity and community well-being. In so doing we pay close attention to the continuing role of traditional value systems, the impacts of colonization and the efforts toward decolonization within tribal communities. We define sovereignty broadly as one of the rights of all indigenous peoples, including both the political-legal foundations as provided in U.S. law and policy and self-determination more generally. Indigeneity underlies the unique holistic relationship that Native American communities have to the land and to the environment. In addition, our degree program not only intends to advance the well-being of our individual students, both native and non-native, but also to enhance the well-being of Indigenous communities across Montana, the United States and globally, by providing necessary and relevant education about those communities as well as the skills and knowledge for those working within those communities to do so effectively. Our curriculum and the foundations of faculty research are broadly cross-disciplinary with these principles at their base.

Native American Studies is an academic discipline committed to examining the contemporary and past experiences and life ways of the indigenous nations of North America from their perspective. The curriculum is designed to provide a study of American Indians from a holistic and humanistic viewpoint by focusing upon their cultures, history, and contemporary life. Courses are designed for both Native American and non-Native American students so they can better understand human similarities and differences, thereby leading to more effective work with and within tribal communities, through stronger knowledge bases of tribal America, and the development of better communications and cross-cultural relationships.

The Native American Studies major supports the objectives of a liberal arts education. It is interdisciplinary and provides a perspective that

critically analyzes and evaluates the strengths and limitations of each contributing discipline.

- Native American Studies B.A. (p. 245)
- Native American Studies Minor (p. 246)
- Language Rejuvenation and Maintenance Certificate (p. 247)
- Native American Studies Certificate (p. 247)

## Native American Studies B.A. General Degree Requirements

To earn a baccalaureate degree, all students must complete successfully, in addition to any other requirements, the University of Montana General Education Requirements. Please refer to the General Education Requirements page (p. 39) for more information.

Additional requirements for graduation can be found on the Degree/Certificate Requirements for Graduation page (p. 36).

Unless otherwise noted in individual program requirements, a minimum grade point average of 2.00 in all work attempted at the University of Montana-Missoula is required for graduation. Please see the Academic Policies and Procedures page (p. 25) for information on how your GPA is calculated.

Courses taken to satisfy the requirements of a major, minor, or certificate program must be completed with a grade of C- or better unless a higher grade is noted in the program requirements.

## Bachelor of Arts - Native American Studies

- This major requires a minimum GPA of 2.5.

### Course Requirements

| Code                                   | Title                                                 | Hours |
|----------------------------------------|-------------------------------------------------------|-------|
| <b>Lower-Division Core Courses</b>     |                                                       |       |
| Complete all of the following courses: |                                                       |       |
| NASX 105H                              | Introduction to Native American Studies               | 3     |
| NASX 201X                              | Indian Culture Expressed Through Language             | 3-4   |
| or NASX 142                            | Elementary Blackfoot II                               |       |
| NASX 235X                              | Oral and Written Traditions of Native Americans       | 3     |
| or NASX 280                            | NA Studies Research Theories and Methods              |       |
| <b>Upper-Division Core Courses</b>     |                                                       |       |
| Group 1 - Ethics and Worldview         |                                                       |       |
| Complete one of the following courses: |                                                       | 3     |
| NASX 303E                              | Ecological Perspectives in Native American Traditions |       |
| NASX 304E                              | Native American Beliefs and Philosophy                |       |
| Group 2 - History                      |                                                       |       |
| Complete one of the following courses: |                                                       | 3     |
| HSTA 364                               | Native American History to 1830                       |       |
| HSTA 365                               | Native American History from 1830                     |       |



|                                                 |                                                       |    |
|-------------------------------------------------|-------------------------------------------------------|----|
| NASX 354X                                       | Indians of Montana since the Reservation Era          |    |
| Group 3 - Policy and Contemporary Communities   |                                                       |    |
| Complete two of the following courses:          |                                                       | 6  |
| NASX 475                                        | Tribal Sovereignty                                    |    |
| NASX 479                                        | Tribal Governance and Policymaking                    |    |
| NASX 494                                        | Seminar/Workshop                                      |    |
| Group 4 - Literature, Film, and Education       |                                                       |    |
| Complete one of the following courses:          |                                                       | 3  |
| NASX 340X                                       | Native American Literature                            |    |
| NASX 360                                        | Native Americans and Cinema                           |    |
| NASX 430                                        | American Indian Education                             |    |
| <b>Electives</b>                                |                                                       |    |
| Complete 15 credits from the following courses: |                                                       | 15 |
| ANTY 122S                                       | Race and Minorities                                   |    |
| ANTY 323X                                       | Native Peoples of Montana                             |    |
| ANTY 330X                                       | Peoples and Cultures of World                         |    |
| HSTA 364                                        | Native American History to 1830                       |    |
| HSTA 365                                        | Native American History from 1830                     |    |
| HSTA 463                                        | Research in 19th-20th Century Native American History |    |
| NASX 141                                        | Elementary Blackfoot I                                |    |
| NASX 142                                        | Elementary Blackfoot II                               |    |
| NASX 180                                        | Event Planning                                        |    |
| NASX 191                                        | Special Topics                                        |    |
| NASX 192                                        | Independent Study                                     |    |
| NASX 198                                        | Internship                                            |    |
| NASX 201X                                       | Indian Culture Expressed Through Language             |    |
| NASX 210X                                       | Native American Sports & Games                        |    |
| NASX 231X                                       | Indigenous World View Perspectives                    |    |
| NASX 260X                                       | Indigenous Community Development                      |    |
| NASX 291                                        | Special Topics                                        |    |
| NASX 292                                        | Independent Study                                     |    |
| NASX 303E                                       | Ecological Perspectives in Native American Traditions |    |
| NASX 304E                                       | Native American Beliefs and Philosophy                |    |
| NASX 351                                        | Traditional Ecological Knowledge                      |    |
| NASX 352                                        | Montana's Indians and Land                            |    |
| NASX 354X                                       | Indians of Montana since the Reservation Era          |    |
| NASX 360                                        | Native Americans and Cinema                           |    |
| NASX 391                                        | Special Topics                                        |    |
| NASX 392                                        | Independent Study                                     |    |
| NASX 394                                        | Workshop/Seminar                                      |    |
| NASX 405                                        | Gender Issues in Native American Studies              |    |
| NASX 430                                        | American Indian Education                             |    |
| NASX 479                                        | Tribal Governance and Policymaking                    |    |
| NASX 491                                        | Special Topics                                        |    |
| NASX 494                                        | Seminar/Workshop                                      |    |
| NASX 499                                        | Senior Capstone/Thesis                                |    |

|                    |                                          |              |
|--------------------|------------------------------------------|--------------|
| PUBH 391           | Special Topics (Am Indian Health Issues) |              |
| <b>Total Hours</b> |                                          | <b>39-40</b> |

## Native American Studies Minor

### General Degree Requirements

To earn a baccalaureate degree, all students must complete successfully, in addition to any other requirements, the University of Montana General Education Requirements. Please refer to the General Education Requirements page (p. 39) for more information.

Additional requirements for graduation can be found on the Degree/Certificate Requirements for Graduation page (p. 36).

Unless otherwise noted in individual program requirements, a minimum grade point average of 2.00 in all work attempted at the University of Montana-Missoula is required for graduation. Please see the Academic Policies and Procedures page (p. 25) for information on how your GPA is calculated.

Courses taken to satisfy the requirements of a major, minor, or certificate program must be completed with a grade of C- or better unless a higher grade is noted in the program requirements.

### Minor - Native American Studies

- This minor requires a GPA of 2.5.

### Course Requirements

| Code                                           | Title                                                 | Hours |
|------------------------------------------------|-------------------------------------------------------|-------|
| <b>Core Courses</b>                            |                                                       |       |
| Complete the following course:                 |                                                       |       |
| NASX 105H                                      | Introduction to Native American Studies               | 3     |
| Complete three of the following courses:       |                                                       |       |
|                                                |                                                       | 9     |
| NASX 201X                                      | Indian Culture Expressed Through Language             |       |
| NASX 231X                                      | Indigenous World View Perspectives                    |       |
| NASX 235X                                      | Oral and Written Traditions of Native Americans       |       |
| NASX 303E                                      | Ecological Perspectives in Native American Traditions |       |
| NASX 304E                                      | Native American Beliefs and Philosophy                |       |
| NASX 475                                       | Tribal Sovereignty                                    |       |
| <b>Electives</b>                               |                                                       |       |
| Complete 9 credits from the following courses: |                                                       |       |
|                                                |                                                       | 9     |
| ANTY 122S                                      | Race and Minorities                                   |       |
| ANTY 323X                                      | Native Peoples of Montana                             |       |
| ANTY 330X                                      | Peoples and Cultures of World                         |       |
| HSTA 364                                       | Native American History to 1830                       |       |
| HSTA 365                                       | Native American History from 1830                     |       |
| HSTA 463                                       | Research in 19th-20th Century Native American History |       |
| HSTR 369                                       | 20th Century American West                            |       |
| NASX 141                                       | Elementary Blackfoot I                                |       |
| NASX 142                                       | Elementary Blackfoot II                               |       |
| NASX 180                                       | Event Planning                                        |       |

|             |                                                       |    |
|-------------|-------------------------------------------------------|----|
| NASX 191    | Special Topics                                        |    |
| NASX 192    | Independent Study                                     |    |
| NASX 198    | Internship                                            |    |
| NASX 201X   | Indian Culture Expressed Through Language             |    |
| NASX 210X   | Native American Sports & Games                        |    |
| NASX 231X   | Indigenous World View Perspectives                    |    |
| NASX 260X   | Indigenous Community Development                      |    |
| NASX 280    | NA Studies Research Theories and Methods              |    |
| NASX 291    | Special Topics                                        |    |
| NASX 292    | Independent Study                                     |    |
| NASX 303E   | Ecological Perspectives in Native American Traditions |    |
| NASX 304E   | Native American Beliefs and Philosophy                |    |
| NASX 340X   | Native American Literature                            |    |
| NASX 351    | Traditional Ecological Knowledge                      |    |
| NASX 352    | Montana's Indians and Land                            |    |
| NASX 354X   | Indians of Montana since the Reservation Era          |    |
| NASX 360    | Native Americans and Cinema                           |    |
| NASX 391    | Special Topics                                        |    |
| NASX 394    | Workshop/Seminar                                      |    |
| NASX 405    | Gender Issues in Native American Studies              |    |
| NASX 430    | American Indian Education                             |    |
| NASX 479    | Tribal Governance and Policymaking                    |    |
| NASX 491    | Special Topics                                        |    |
| NASX 494    | Seminar/Workshop                                      |    |
| NASX 499    | Senior Capstone/Thesis                                |    |
| Total Hours |                                                       | 21 |

## Language Rejuvenation and Maintenance Certificate

The Certificate in Language Rejuvenation and Maintenance has been broadly designed to meet the needs of students interested in language revitalization, instructors of Native languages seeking to learn of, and acquire skills for, successful language instruction and acquisition, or administrators involved in language revitalization programs.

### General Certificate Requirements

Additional requirements for graduation can be found on the Degree/Certificate Requirements for Graduation page (p. 36).

Unless otherwise noted in individual program requirements, a minimum grade point average of 2.00 in all work attempted at the University of Montana-Missoula is required for graduation. Please see the Academic Policies and Procedures page (p. 25) for information on how your GPA is calculated.

Courses taken to satisfy the requirements of a major, minor, or certificate program must be completed with a grade of C- or better unless a higher grade is noted in the program requirements.

## Post-Secondary Certificate - Language Rejuvenation and Maintenance Course Requirements

| Code                                           | Title                                           | Hours     |
|------------------------------------------------|-------------------------------------------------|-----------|
| <b>Core Courses</b>                            |                                                 |           |
| Complete all of the following courses:         |                                                 |           |
| ANTY 476                                       | Methods for Native Languages                    | 3         |
| CSD 210                                        | Speech & Language Development                   | 3         |
| NASX 201X                                      | Indian Culture Expressed Through Language       | 3         |
| NASX 495                                       | Practicum                                       | 3         |
| or ANTY 495                                    | Field Experience/Practicum                      |           |
| <b>Electives</b>                               |                                                 |           |
| Complete 9 credits from the following courses: |                                                 | 9         |
| ANTY 326E                                      | Indigenous Peoples & the Ethics of Development  |           |
| ANTY 423                                       | Culture and Identity                            |           |
| ANTY 476                                       | Methods for Native Languages <sup>1</sup>       |           |
| NASX 141                                       | Elementary Blackfoot I                          |           |
| NASX 235X                                      | Oral and Written Traditions of Native Americans |           |
| <b>Total Hours</b>                             |                                                 | <b>21</b> |

<sup>1</sup> ANTY 476 may be repeated to count for elective credit.

## Native American Studies Certificate General Certificate Requirements

Additional requirements for graduation can be found on the Degree/Certificate Requirements for Graduation page (p. 36).

Unless otherwise noted in individual program requirements, a minimum grade point average of 2.00 in all work attempted at the University of Montana-Missoula is required for graduation. Please see the Academic Policies and Procedures page (p. 25) for information on how your GPA is calculated.

Courses taken to satisfy the requirements of a major, minor, or certificate program must be completed with a grade of C- or better unless a higher grade is noted in the program requirements.

## Post-Secondary Certificate - Native American Studies Course Requirements

| Code                                   | Title                                           | Hours |
|----------------------------------------|-------------------------------------------------|-------|
| <b>Core Courses</b>                    |                                                 |       |
| Complete all of the following courses: |                                                 |       |
| NASX 235X                              | Oral and Written Traditions of Native Americans | 3     |
| NASX 475                               | Tribal Sovereignty                              | 3     |
| <b>Electives</b>                       |                                                 |       |
| Complete two of the following courses: |                                                 | 6     |

|             |                                                                                           |    |
|-------------|-------------------------------------------------------------------------------------------|----|
| ANTY 150X   | Archaeology of Yellowstone: 11,000 Years of Native Americans in Yellowstone National Park |    |
| ENST 489S   | Environmental Justice Issues & Solutions                                                  |    |
| HSTA 255    | Montana History                                                                           |    |
| HSTA 364    | Native American History to 1830                                                           |    |
| HSTA 365    | Native American History from 1830                                                         |    |
| NASX 210X   | Native American Sports & Games                                                            |    |
| NASX 235X   | Oral and Written Traditions of Native Americans                                           |    |
| NASX 260X   | Indigenous Community Development                                                          |    |
| NASX 304E   | Native American Beliefs and Philosophy                                                    |    |
| NASX 340X   | Native American Literature                                                                |    |
| NASX 430    | American Indian Education                                                                 |    |
| PHAR 320    |                                                                                           |    |
| S W 491     | Special Topics (Social Justice in Indian Country)                                         |    |
| Total Hours |                                                                                           | 12 |

## Philosophy

Philosophy is the search for an understanding of how the world as a whole hangs together and of how we are to assume our place in the world. Philosophy pursues its goal first of all historically. It is the trustee of the heritage of great philosophical texts, and it engages those texts in conversation with contemporary problems. Second, philosophy turns to the contemporary world directly and tries to illuminate and advance its concerns with ethics and art, with science and technology, with ecology and feminism, with law and medicine. Bachelor of Arts and Master of Arts degrees are offered.

More information is available online at the Philosophy Department website (<http://hs.umd.edu/philosophy/>).

- Philosophy B.A. (p. 248)
- Philosophy B.A. - Environmental Philosophy (p. 250)
- Philosophy B.A. - Philosophy and Law (p. 251)
- Environmental Ethics Certificate (p. 252)
- Philosophy, Politics, and Law Certificate (p. 252)
- Pre-Law Certificate (p. 254)
- Philosophy Minor (p. 254)
- Ethics Minor (p. 255)

## Philosophy B.A.

### General Degree Requirements

To earn a baccalaureate degree, all students must complete successfully, in addition to any other requirements, the University of Montana General Education Requirements. Please refer to the General Education Requirements page (p. 39) for more information.

Additional requirements for graduation can be found on the Degree/Certificate Requirements for Graduation page (p. 36).

Unless otherwise noted in individual program requirements, a minimum grade point average of 2.00 in all work attempted at the University of Montana-Missoula is required for graduation. Please see the Academic

Policies and Procedures page (p. 25) for information on how your GPA is calculated.

Courses taken to satisfy the requirements of a major, minor, or certificate program must be completed with a grade of C- or better unless a higher grade is noted in the program requirements.

## Bachelor of Arts - Philosophy

### Course Requirements

| Code                                                                      | Title                                     | Hours |
|---------------------------------------------------------------------------|-------------------------------------------|-------|
| <b>Lower-Division Core</b>                                                |                                           |       |
| Complete all of the following courses:                                    |                                           |       |
| PHL 210E                                                                  | Moral Philosophy                          | 3     |
| PHL 233                                                                   | Intro to Logic: Deduction                 | 3     |
| PHL 261Y                                                                  | History of Ancient Philosophy             | 3     |
| PHL 262Y                                                                  | History of Modern Philosophy              | 3     |
| <b>Upper-Division Core I: History <sup>1</sup></b>                        |                                           |       |
| Complete one of the following courses:                                    |                                           | 3     |
| PHL 403                                                                   | Wittgenstein                              |       |
| PHL 449                                                                   | History of Moral and Political Philosophy |       |
| PHL 456                                                                   | Iris Murdoch's Ethics                     |       |
| PHL 462                                                                   |                                           |       |
| PHL 465                                                                   | Plato                                     |       |
| PHL 466                                                                   | Aristotle                                 |       |
| PHL 467                                                                   |                                           |       |
| PHL 468                                                                   | 20th Century Continental Philosophy       |       |
| PHL 469                                                                   | Rousseau                                  |       |
| PHL 470                                                                   | Hegel                                     |       |
| PHL 471                                                                   | Kierkegaard                               |       |
| PHL 472                                                                   | Thoreau                                   |       |
| PHL 473                                                                   | Nietzsche                                 |       |
| PHL 478                                                                   | Critical Theory                           |       |
| <b>Upper-Division Core II: Value <sup>1</sup></b>                         |                                           |       |
| Complete one of the following courses:                                    |                                           | 3     |
| PHL 422                                                                   | Environmental Philosophy                  |       |
| PHL 424                                                                   | Environmental Aesthetics                  |       |
| PHL 427                                                                   | Topics in Philosophy of Art               |       |
| PHL 429                                                                   | Philosophy and Literature                 |       |
| PHL 448                                                                   | Philosophy and Animals                    |       |
| PHL 449                                                                   | History of Moral and Political Philosophy |       |
| PHL 450                                                                   | Contemporary Moral/Political Theory       |       |
| PHL 451                                                                   | Justice                                   |       |
| PHL 456                                                                   | Iris Murdoch's Ethics                     |       |
| PHL 469                                                                   | Rousseau                                  |       |
| PHL 470                                                                   | Hegel                                     |       |
| PHL 471                                                                   | Kierkegaard                               |       |
| PHL 472                                                                   | Thoreau                                   |       |
| PHL 473                                                                   | Nietzsche                                 |       |
| PHL 478                                                                   | Critical Theory                           |       |
| <b>Upper-Division Core III: Metaphysics and Epistemology <sup>1</sup></b> |                                           |       |
| Complete one of the following courses:                                    |                                           | 3     |
| PHL 403                                                                   | Wittgenstein                              |       |
| PHL 407                                                                   | Epistemology                              |       |

|                                                                                                                                                                                           |                                           |   |
|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-------------------------------------------|---|
| PHL 423                                                                                                                                                                                   | Science and the Environment               |   |
| PHL 445                                                                                                                                                                                   |                                           |   |
| PHL 448                                                                                                                                                                                   | Philosophy and Animals                    |   |
| <b>Electives</b>                                                                                                                                                                          |                                           |   |
| Complete three of the following courses. At least two of the three courses must be at the 300-level or higher (6 credits; 3 of these 6 credits must be in courses other than 398 or 498). |                                           | 9 |
| PHL 101L                                                                                                                                                                                  | Introduction to Philosophy                |   |
| PHL 102L                                                                                                                                                                                  | Introduction to Existentialism            |   |
| PHL 110E                                                                                                                                                                                  | Introduction to Ethics                    |   |
| PHL 112E                                                                                                                                                                                  | Intro Ethics and Environment              |   |
| PHL 114E                                                                                                                                                                                  | Intro to Political Ethics                 |   |
| PHL 191                                                                                                                                                                                   | Special Topics                            |   |
| PHL 241N                                                                                                                                                                                  | Hist & Philosophy of Science              |   |
| PHL 291                                                                                                                                                                                   | Special Topics                            |   |
| PHL 292                                                                                                                                                                                   | Independent Study                         |   |
| PHL 309E                                                                                                                                                                                  | The Art of Living                         |   |
| PHL 316                                                                                                                                                                                   | Historical Figures in Phil                |   |
| PHL 317E                                                                                                                                                                                  | Law and Morality                          |   |
| PHL 318                                                                                                                                                                                   | Applied Logic                             |   |
| PHL 319E                                                                                                                                                                                  | Law and Discrimination                    |   |
| PHL 321E                                                                                                                                                                                  | Philosophy & Biomedical Ethics            |   |
| PHL 323                                                                                                                                                                                   | Ethics of Climate Change                  |   |
| PHL 327L                                                                                                                                                                                  | Aesthetics and the Arts                   |   |
| PHL 365                                                                                                                                                                                   | Philosophy of Mind and Consciousness      |   |
| PHL 390                                                                                                                                                                                   | Research                                  |   |
| PHL 391                                                                                                                                                                                   | Special Topics                            |   |
| PHL 392                                                                                                                                                                                   | Independent Study                         |   |
| PHL 394                                                                                                                                                                                   | Seminar                                   |   |
| PHL 403                                                                                                                                                                                   | Wittgenstein                              |   |
| PHL 407                                                                                                                                                                                   | Epistemology                              |   |
| PHL 415                                                                                                                                                                                   | Issues in the Anthropocene                |   |
| PHL 422                                                                                                                                                                                   | Environmental Philosophy                  |   |
| PHL 423                                                                                                                                                                                   | Science and the Environment               |   |
| PHL 424                                                                                                                                                                                   | Environmental Aesthetics                  |   |
| PHL 427                                                                                                                                                                                   | Topics in Philosophy of Art               |   |
| PHL 429                                                                                                                                                                                   | Philosophy and Literature                 |   |
| PHL 445                                                                                                                                                                                   |                                           |   |
| PHL 449                                                                                                                                                                                   | History of Moral and Political Philosophy |   |
| PHL 448                                                                                                                                                                                   | Philosophy and Animals                    |   |
| PHL 450                                                                                                                                                                                   | Contemporary Moral/Political Theory       |   |
| PHL 451                                                                                                                                                                                   | Justice                                   |   |
| PHL 456                                                                                                                                                                                   | Iris Murdoch's Ethics                     |   |
| PHL 462                                                                                                                                                                                   |                                           |   |
| PHL 465                                                                                                                                                                                   | Plato                                     |   |
| PHL 466                                                                                                                                                                                   | Aristotle                                 |   |
| PHL 467                                                                                                                                                                                   |                                           |   |
| PHL 468                                                                                                                                                                                   | 20th Century Continental Philosophy       |   |
| PHL 469                                                                                                                                                                                   | Rousseau                                  |   |
| PHL 470                                                                                                                                                                                   | Hegel                                     |   |
| PHL 472                                                                                                                                                                                   | Thoreau                                   |   |
| PHL 473                                                                                                                                                                                   | Nietzsche                                 |   |

|         |                        |
|---------|------------------------|
| PHL 478 | Critical Theory        |
| PHL 490 | Undergraduate Research |
| PHL 491 | Special Topics         |
| PHL 492 | Independent Study      |
| PHL 494 | Seminar                |
| PHL 498 | Internship             |

#### Advanced Writing Course

Complete the following course:

|         |                                |   |
|---------|--------------------------------|---|
| PHL 400 | Advanced Writing in Philosophy | 1 |
|---------|--------------------------------|---|

#### Upper-Division Seminar Requirement

Of the upper-division requirements (upper-division core and upper-division electives), 9 of the required 18 credits must be at the 400-level, excluding PHL 498.

|                    |           |
|--------------------|-----------|
| <b>Total Hours</b> | <b>31</b> |
|--------------------|-----------|

<sup>1</sup> Special Topics courses taught at the 300- or 400-level (PHL 391 and PHL 491) may count as upper-division area courses provided that they have a suitable content. Consult the department advisor for additional information.

## Four Year Plan

| Course                        | Title                                         | Hours     |
|-------------------------------|-----------------------------------------------|-----------|
| <b>Freshman</b>               |                                               |           |
| <b>Autumn</b>                 |                                               |           |
| PHL 101L                      | Introduction to Philosophy                    | 3         |
| WRIT 101                      | College Writing I                             | 4         |
| Foreign Language 101          |                                               | 4         |
| PHL 261Y                      | History of Ancient Philosophy                 | 3         |
| General Education Requirement |                                               | 6         |
| <b>Hours</b>                  |                                               | <b>20</b> |
| <b>Spring</b>                 |                                               |           |
| PHL 210E                      | Moral Philosophy                              | 3         |
| PHL 262Y                      | History of Modern Philosophy                  | 3         |
| General Education Requirement |                                               | 6         |
| Elective                      |                                               | 3         |
| Foreign Language 102          |                                               | 4         |
| <b>Hours</b>                  |                                               | <b>19</b> |
| <b>Sophomore</b>              |                                               |           |
| <b>Autumn</b>                 |                                               |           |
| PHL 233                       | Intro to Logic: Deduction                     | 3         |
| 300-level PHL elective        |                                               | 3         |
| General Education Requirement |                                               | 6         |
| Elective                      |                                               | 3         |
| <b>Hours</b>                  |                                               | <b>15</b> |
| <b>Spring</b>                 |                                               |           |
| PHL 210E                      | Moral Philosophy (if didn't take last spring) | 3         |
| 300-level PHL elective        |                                               | 3         |
| General Education Requirement |                                               | 6         |
| Elective                      |                                               | 3         |
| <b>Hours</b>                  |                                               | <b>15</b> |

|                                       |                                                                                |            |
|---------------------------------------|--------------------------------------------------------------------------------|------------|
| <b>Junior</b>                         |                                                                                |            |
| <b>Autumn</b>                         |                                                                                |            |
| PHL 403                               | Wittgenstein (Upper Division Core - History) <sup>1</sup>                      | 3          |
| or PHL 449                            | or History of Moral and Political Philosophy                                   |            |
| or PHL 462                            | or                                                                             |            |
| or PHL 465                            | or Plato                                                                       |            |
| or PHL 466                            | or Aristotle                                                                   |            |
| or PHL 467                            | or                                                                             |            |
| or PHL 468                            | or 20th Century Continental Philosophy                                         |            |
| or PHL 469                            | or Rousseau                                                                    |            |
| or PHL 470                            | or Hegel                                                                       |            |
| or PHL 472                            | or Thoreau                                                                     |            |
| Upper Division Philosophy Course      |                                                                                | 3          |
| Upper Division Elective               |                                                                                | 3          |
| Elective                              |                                                                                | 6          |
| <b>Hours</b>                          |                                                                                | <b>15</b>  |
| <b>Spring</b>                         |                                                                                |            |
| PHL 422                               | Environmental Philosophy (Upper Division Core - Value Theory) <sup>1</sup>     | 3          |
| or PHL 427                            | or Topics in Philosophy of Art                                                 |            |
| or PHL 429                            | or Philosophy and Literature                                                   |            |
| or PHL 449                            | or History of Moral and Political Philosophy                                   |            |
| or PHL 450                            | or Contemporary Moral/Political Theory                                         |            |
| or PHL 451                            | or Justice                                                                     |            |
| or PHL 469                            | or Rousseau                                                                    |            |
| or PHL 470                            | or Hegel                                                                       |            |
| or PHL 472                            | or Thoreau                                                                     |            |
| Upper Division Philosophy Course      |                                                                                | 3          |
| Upper Division Elective               |                                                                                | 3          |
| Elective                              |                                                                                | 6          |
| <b>Hours</b>                          |                                                                                | <b>15</b>  |
| <b>Senior</b>                         |                                                                                |            |
| <b>Autumn</b>                         |                                                                                |            |
| PHL 403                               | Wittgenstein (Upper Division Core - Metaphysics and Epistemology) <sup>1</sup> | 3          |
| or PHL 407                            | or Epistemology                                                                |            |
| or PHL 423                            | or Science and the Environment                                                 |            |
| or PHL 445                            | or                                                                             |            |
| or PHL 448                            | or Philosophy and Animals                                                      |            |
| Upper Division Philosophy Course      |                                                                                | 3          |
| Upper Division Elective               |                                                                                | 6          |
| Elective                              |                                                                                | 3          |
| <b>Hours</b>                          |                                                                                | <b>15</b>  |
| <b>Spring</b>                         |                                                                                |            |
| PHL 400                               | Advanced Writing in Philosophy                                                 | 1          |
| Upper Division Philosophy (400 level) |                                                                                | 3          |
| Upper Division Elective               |                                                                                | 6          |
| Elective                              |                                                                                | 3          |
| <b>Hours</b>                          |                                                                                | <b>13</b>  |
| <b>Total Hours</b>                    |                                                                                | <b>127</b> |

*Last updated Autumn 2024*

<sup>1</sup> Special Topics courses taught at the 300- or 400-level (PHL 391 and PHL 491) may count as upper-division area courses provided that they have a suitable content. Consult the department advisor for additional information.

# Philosophy B.A. - Environmental Philosophy

## General Degree Requirements

To earn a baccalaureate degree, all students must complete successfully, in addition to any other requirements, the University of Montana

General Education Requirements. Please refer to the General Education Requirements page (p. 39) for more information.

Additional requirements for graduation can be found on the Degree/Certificate Requirements for Graduation page (p. 36).

Unless otherwise noted in individual program requirements, a minimum grade point average of 2.00 in all work attempted at the University of Montana-Missoula is required for graduation. Please see the Academic Policies and Procedures page (p. 25) for information on how your GPA is calculated.

Courses taken to satisfy the requirements of a major, minor, or certificate program must be completed with a grade of C- or better unless a higher grade is noted in the program requirements.

## Bachelor of Arts - Philosophy; Environmental Philosophy Concentration

### Course Requirements

| Code                                                                      | Title                                     | Hours |
|---------------------------------------------------------------------------|-------------------------------------------|-------|
| <b>Lower-Division Core</b>                                                |                                           |       |
| Complete all of the following courses:                                    |                                           |       |
| PHL 210E                                                                  | Moral Philosophy                          | 3     |
| PHL 233                                                                   | Intro to Logic: Deduction                 | 3     |
| PHL 261Y                                                                  | History of Ancient Philosophy             | 3     |
| PHL 262Y                                                                  | History of Modern Philosophy              | 3     |
| <b>Upper-Division Core I: History <sup>1</sup></b>                        |                                           |       |
| Complete one of the following courses:                                    |                                           |       |
| PHL 403                                                                   | Wittgenstein                              |       |
| PHL 449                                                                   | History of Moral and Political Philosophy |       |
| PHL 462                                                                   |                                           |       |
| PHL 465                                                                   | Plato                                     |       |
| PHL 466                                                                   | Aristotle                                 |       |
| PHL 467                                                                   |                                           |       |
| PHL 468                                                                   | 20th Century Continental Philosophy       |       |
| PHL 469                                                                   | Rousseau                                  |       |
| PHL 470                                                                   | Hegel                                     |       |
| PHL 472                                                                   | Thoreau                                   |       |
| <b>Upper-Division Core II: Value <sup>1</sup></b>                         |                                           |       |
| Complete one of the following courses:                                    |                                           |       |
| PHL 422                                                                   | Environmental Philosophy                  |       |
| PHL 427                                                                   | Topics in Philosophy of Art               |       |
| PHL 429                                                                   | Philosophy and Literature                 |       |
| PHL 449                                                                   | History of Moral and Political Philosophy |       |
| PHL 450                                                                   | Contemporary Moral/Political Theory       |       |
| PHL 451                                                                   | Justice                                   |       |
| PHL 469                                                                   | Rousseau                                  |       |
| PHL 470                                                                   | Hegel                                     |       |
| PHL 472                                                                   | Thoreau                                   |       |
| <b>Upper-Division Core III: Metaphysics and Epistemology <sup>1</sup></b> |                                           |       |
| Complete one of the following courses:                                    |                                           |       |
| PHL 403                                                                   | Wittgenstein                              |       |
| PHL 407                                                                   | Epistemology                              |       |
| PHL 423                                                                   | Science and the Environment               |       |
| PHL 445                                                                   |                                           |       |



|                                                                                                                                                                  |                                |           |
|------------------------------------------------------------------------------------------------------------------------------------------------------------------|--------------------------------|-----------|
| PHL 448                                                                                                                                                          | Philosophy and Animals         |           |
| <b>Environmental Philosophy Core</b>                                                                                                                             |                                |           |
| Complete three of the following courses:                                                                                                                         |                                | 9         |
| PHL 112E                                                                                                                                                         | Intro Ethics and Environment   |           |
| PHL 323                                                                                                                                                          | Ethics of Climate Change       |           |
| PHL 415                                                                                                                                                          | Issues in the Anthropocene     |           |
| PHL 422                                                                                                                                                          | Environmental Philosophy       |           |
| PHL 423                                                                                                                                                          | Science and the Environment    |           |
| PHL 424                                                                                                                                                          | Environmental Aesthetics       |           |
| PHL 448                                                                                                                                                          | Philosophy and Animals         |           |
| PHL 472                                                                                                                                                          | Thoreau                        |           |
| <b>Advanced Writing Course</b>                                                                                                                                   |                                |           |
| Complete the following course:                                                                                                                                   |                                |           |
| PHL 400                                                                                                                                                          | Advanced Writing in Philosophy | 1         |
| <b>Upper-Division Seminar Requirement</b>                                                                                                                        |                                |           |
| Of the upper-division requirements (upper-division core and upper-division electives), 9 of the required 18 credits must be at the 400-level, excluding PHL 498. |                                |           |
| <b>Total Hours</b>                                                                                                                                               |                                | <b>31</b> |

<sup>1</sup> Special Topics courses taught at the 300- or 400-level (PHL 391 and PHL 491) may count as upper-division area courses provided that they have a suitable content. Consult the department advisor for additional information.

## Philosophy B.A. - Philosophy and Law

### General Degree Requirements

To earn a baccalaureate degree, all students must complete successfully, in addition to any other requirements, the University of Montana General Education Requirements. Please refer to the General Education Requirements page (p. 39) for more information.

Additional requirements for graduation can be found on the Degree/Certificate Requirements for Graduation page (p. 36).

Unless otherwise noted in individual program requirements, a minimum grade point average of 2.00 in all work attempted at the University of Montana-Missoula is required for graduation. Please see the Academic Policies and Procedures page (p. 25) for information on how your GPA is calculated.

Courses taken to satisfy the requirements of a major, minor, or certificate program must be completed with a grade of C- or better unless a higher grade is noted in the program requirements.

## Bachelor of Arts - Philosophy; Philosophy and Law Concentration

### Course Requirements

| Code                                   | Title                     | Hours |
|----------------------------------------|---------------------------|-------|
| <b>Lower-Division Core</b>             |                           |       |
| Complete all of the following courses: |                           |       |
| PHL 210E                               | Moral Philosophy          | 3     |
| PHL 233                                | Intro to Logic: Deduction | 3     |

|                                                                                                                                                                  |                                           |           |
|------------------------------------------------------------------------------------------------------------------------------------------------------------------|-------------------------------------------|-----------|
| PHL 261Y                                                                                                                                                         | History of Ancient Philosophy             | 3         |
| PHL 262Y                                                                                                                                                         | History of Modern Philosophy              | 3         |
| <b>Upper-Division Core I: History <sup>1</sup></b>                                                                                                               |                                           |           |
| Complete one of the following courses:                                                                                                                           |                                           | 3         |
| PHL 403                                                                                                                                                          | Wittgenstein                              |           |
| PHL 449                                                                                                                                                          | History of Moral and Political Philosophy |           |
| PHL 462                                                                                                                                                          |                                           |           |
| PHL 465                                                                                                                                                          | Plato                                     |           |
| PHL 466                                                                                                                                                          | Aristotle                                 |           |
| PHL 467                                                                                                                                                          |                                           |           |
| PHL 468                                                                                                                                                          | 20th Century Continental Philosophy       |           |
| PHL 469                                                                                                                                                          | Rousseau                                  |           |
| PHL 470                                                                                                                                                          | Hegel                                     |           |
| PHL 472                                                                                                                                                          | Thoreau                                   |           |
| <b>Upper-Division Core II: Value <sup>1</sup></b>                                                                                                                |                                           |           |
| Complete one of the following courses:                                                                                                                           |                                           | 3         |
| PHL 422                                                                                                                                                          | Environmental Philosophy                  |           |
| PHL 427                                                                                                                                                          | Topics in Philosophy of Art               |           |
| PHL 429                                                                                                                                                          | Philosophy and Literature                 |           |
| PHL 449                                                                                                                                                          | History of Moral and Political Philosophy |           |
| PHL 450                                                                                                                                                          | Contemporary Moral/Political Theory       |           |
| PHL 451                                                                                                                                                          | Justice                                   |           |
| PHL 469                                                                                                                                                          | Rousseau                                  |           |
| PHL 470                                                                                                                                                          | Hegel                                     |           |
| PHL 472                                                                                                                                                          | Thoreau                                   |           |
| <b>Upper-Division Core III: Metaphysics and Epistemology <sup>1</sup></b>                                                                                        |                                           |           |
| Complete one of the following courses:                                                                                                                           |                                           | 3         |
| PHL 403                                                                                                                                                          | Wittgenstein                              |           |
| PHL 407                                                                                                                                                          | Epistemology                              |           |
| PHL 423                                                                                                                                                          | Science and the Environment               |           |
| PHL 445                                                                                                                                                          |                                           |           |
| PHL 448                                                                                                                                                          | Philosophy and Animals                    |           |
| <b>Philosophy and Law Core</b>                                                                                                                                   |                                           |           |
| Complete three of the following courses:                                                                                                                         |                                           | 9         |
| PHL 114E                                                                                                                                                         | Intro to Political Ethics                 |           |
| PHL 317E                                                                                                                                                         | Law and Morality                          |           |
| PHL 319E                                                                                                                                                         | Law and Discrimination                    |           |
| PHL 450                                                                                                                                                          | Contemporary Moral/Political Theory       |           |
| PHL 506                                                                                                                                                          | Philosophy of Law                         |           |
| <b>Advanced Writing Course</b>                                                                                                                                   |                                           |           |
| Complete the following course:                                                                                                                                   |                                           |           |
| PHL 400                                                                                                                                                          | Advanced Writing in Philosophy            | 1         |
| <b>Upper-Division Seminar Requirement</b>                                                                                                                        |                                           |           |
| Of the upper-division requirements (upper-division core and upper-division electives), 9 of the required 18 credits must be at the 400-level, excluding PHL 498. |                                           |           |
| <b>Total Hours</b>                                                                                                                                               |                                           | <b>31</b> |

<sup>1</sup> Special Topics courses taught at the 300- or 400-level (PHL 391 and PHL 491) may count as upper-division area courses provided that they have a suitable content. Consult the department advisor for additional information.

# Environmental Ethics Certificate

## General Certificate Requirements

Additional requirements for graduation can be found on the Degree/Certificate Requirements for Graduation page (p. 36).

Unless otherwise noted in individual program requirements, a minimum grade point average of 2.00 in all work attempted at the University of Montana-Missoula is required for graduation. Please see the Academic Policies and Procedures page (p. 25) for information on how your GPA is calculated.

Courses taken to satisfy the requirements of a major, minor, or certificate program must be completed with a grade of C- or better unless a higher grade is noted in the program requirements.

## Post-Secondary Certificate - Environmental Ethics

### Course Requirements

| Code                                                                                                        | Title                                                 | Hours |
|-------------------------------------------------------------------------------------------------------------|-------------------------------------------------------|-------|
| <b>Required Courses</b>                                                                                     |                                                       |       |
| Complete two of the following core ethics courses. Only one of these courses may be taken at the 100-level. |                                                       | 6     |
| PHL 110E                                                                                                    | Introduction to Ethics                                |       |
| PHL 112E                                                                                                    | Intro Ethics and Environment                          |       |
| PHL 323                                                                                                     | Ethics of Climate Change                              |       |
| PHL 422/522                                                                                                 | Environmental Philosophy                              |       |
| PHL 448                                                                                                     | Philosophy and Animals                                |       |
| PHL 472                                                                                                     | Thoreau                                               |       |
| <b>Electives</b>                                                                                            |                                                       |       |
| Complete two of the following courses (at least one must be at the 400 or 500 level):                       |                                                       | 6     |
| COMX 347                                                                                                    | Rhetoric, Nature, and Environmentalism                |       |
| COMX 349                                                                                                    | Communication, Consumption, and Climate               |       |
| ENST 225S                                                                                                   | Sustainable Communities                               |       |
| ENST 230H                                                                                                   | Nature and Society                                    |       |
| ENST 320E                                                                                                   | Earth Ethics                                          |       |
| ENST 335L                                                                                                   | Literature of the Earth                               |       |
| ENST 367                                                                                                    | Environmental Politics & Policies                     |       |
| ENST 410                                                                                                    | TEK of Indigenous Peoples                             |       |
| ENST 420                                                                                                    | US Environmental Movement                             |       |
| ENST 480                                                                                                    | Food Justice and Sustainability                       |       |
| ENST 487                                                                                                    | Globalization, Justice & Environment                  |       |
| ENST 489S                                                                                                   | Environmental Justice Issues & Solutions              |       |
| HSTR 364                                                                                                    | Environmental History                                 |       |
| NASX 303E                                                                                                   | Ecological Perspectives in Native American Traditions |       |
| NASX 304E                                                                                                   | Native American Beliefs and Philosophy                |       |
| NRSM 265                                                                                                    | Ecosystem Restoration                                 |       |
| NRSM 326                                                                                                    | Climate and Society                                   |       |
| NRSM 349E                                                                                                   | Climate Change Ethics and Policy                      |       |
| NRSM 370S                                                                                                   | Wildland Conservation Policy/Governance               |       |
| NRSM 373                                                                                                    | Wilderness and Civilization                           |       |
| NRSM 389E                                                                                                   | Ethics and Sustainability                             |       |

|             |                                        |
|-------------|----------------------------------------|
| PHL 210E    | Moral Philosophy                       |
| PHL 323     | Ethics of Climate Change               |
| PHL 415/515 | Issues in the Anthropocene             |
| PHL 422/522 | Environmental Philosophy               |
| PHL 424     | Environmental Aesthetics               |
| PHL 448/548 | Philosophy and Animals                 |
| PHL 472     | Thoreau                                |
| PSCI 332    | Global Environmental Politics          |
| PTRM 482    | Wilderness & Protected Area Management |
| SOCI 470    | Environmental Sociology                |

Total Hours 12

## Philosophy, Politics, and Law Certificate

The Philosophy, Politics, and Law (PPL, pronounced “People”) certificate provides students with the opportunity to learn about the philosophical foundations, history, and social practice of human rights and liberties in modern democracies. Students are expected to gain a deep understanding of how our legal and political institutions have functioned in the past, how they currently function, and how they ought to function, as well as how citizens might play a meaningful role in them.

While philosophical analysis focuses on what constitutes legitimate political authority and its exercise over individual behavior, one also need to understand how human social and political life actually works. Conversely, one’s grasp of political, legal, and social behavior is greatly enriched by a conceptual and foundational perspective on the norms of behavior. Political Science, philosophy, and other disciplines such as history, sociology, or economics are thus perfectly complementary when it comes to advancing one’s understanding of our legal and political institutions.

Students who successfully complete the PPL certificate will gain substantial knowledge of democratic political ideas, practices, and institutions from multiple disciplines as well as solid skills in reading, writing, oral communication, and analytic thinking. This is a useful background for students planning to pursue graduate degrees in law, philosophy, political science, or history. It is also a good springboard for careers in business, public service, international affairs, journalism, and teaching.

The PPL certificate requires students to take a total of 27 credits (9 courses), including 9 credits (3 courses) in philosophy, 9 credits (3 courses) in political science, and 9 credits (3 courses) in either history, sociology, or economics. In philosophy and political science, it is required that at least 1 course (3 credits) be upper-division in each discipline. The certificate will be easy to complete for students who decide to major or minor in either philosophy or political Science, or both.

Courses taken to fulfil the PPL certificate also satisfy a wide range of general education requirements, including E, H, S, X and Y.

To stay in the program, students must maintain an overall G.P.A. of 3.0. All courses chosen for the certificate must be completed with a grade of C or better.

The certificate is jointly administered by the Department of Philosophy, the Department of Political Science, and the Pre-Law Program. Primary contacts are Prof. Soazig Le Bihan (soazig.lebihan@umontana.edu) and

Prof. Ramona Grey (ramona.grey@umontana.edu), Chair of the Political Science Department.

Students interested in pursuing the PPL certificate must receive formal approval from one of the primary contacts listed above.

## General Certificate Requirements

Additional requirements for graduation can be found on the Degree/Certificate Requirements for Graduation page (p. 36).

Unless otherwise noted in individual program requirements, a minimum grade point average of 2.00 in all work attempted at the University of Montana-Missoula is required for graduation. Please see the Academic Policies and Procedures page (p. 25) for information on how your GPA is calculated.

Courses taken to satisfy the requirements of a major, minor, or certificate program must be completed with a grade of C- or better unless a higher grade is noted in the program requirements.

## Post-Secondary Certificate - Philosophy, Politics, and Law

- This certificate requires a GPA of 3.0.

### Course Requirements

| Code                                                                                                                               | Title                                     | Hours |
|------------------------------------------------------------------------------------------------------------------------------------|-------------------------------------------|-------|
| <b>Philosophy</b>                                                                                                                  |                                           |       |
| Complete three of the following core ethics courses. At least one of the course taken must be upper-division (300-level or above). |                                           | 9     |
| PHL 101L                                                                                                                           | Introduction to Philosophy                |       |
| PHL 110E                                                                                                                           | Introduction to Ethics                    |       |
| PHL 112E                                                                                                                           | Intro Ethics and Environment              |       |
| PHL 114E                                                                                                                           | Intro to Political Ethics                 |       |
| PHL 210E                                                                                                                           | Moral Philosophy                          |       |
| PHL 233                                                                                                                            | Intro to Logic: Deduction                 |       |
| PHL 261Y                                                                                                                           | History of Ancient Philosophy             |       |
| PHL 262Y                                                                                                                           | History of Modern Philosophy              |       |
| PHL 316                                                                                                                            | Historical Figures in Phil                |       |
| PHL 317E                                                                                                                           | Law and Morality                          |       |
| PHL 319E                                                                                                                           | Law and Discrimination                    |       |
| PHL 323                                                                                                                            | Ethics of Climate Change                  |       |
| PHL 449                                                                                                                            | History of Moral and Political Philosophy |       |
| PHL 450                                                                                                                            | Contemporary Moral/Political Theory       |       |
| PHL 451                                                                                                                            | Justice                                   |       |
| PHL 456                                                                                                                            | Iris Murdoch's Ethics                     |       |
| PHL 469                                                                                                                            | Rousseau                                  |       |
| PHL 502                                                                                                                            | Topics in Value Theory                    |       |
| PHL 506                                                                                                                            | Philosophy of Law                         |       |
| <b>Political Science</b>                                                                                                           |                                           |       |
| Complete three of the following courses. At least one of the course taken must be upper-division (300-level or above).             |                                           | 9     |
| PSCI 210S                                                                                                                          | Intro to American Government              |       |
| PSCI 220S                                                                                                                          | Intro to Comparative Government           |       |
| PSCI 230X                                                                                                                          | Intro to International Relations          |       |
| PSCI 250E                                                                                                                          | Intro to Political Theory                 |       |

|           |                                             |
|-----------|---------------------------------------------|
| PSCI 320  | Experimental Offering: Comparative Politics |
| PSCI 332  | Global Environmental Politics               |
| PSCI 345  | American Political System                   |
| PSCI 352Y | American Political Thought                  |
| PSCI 370  | Courts and Judicial Politics                |
| PSCI 381  | State Formation                             |
| PSCI 420  | Experimental Offering: Comparative Politics |
| PSCI 433  | International Law & Organization            |
| PSCI 443  | Politics of Social Movements                |
| PSCI 445  | Political Psychology                        |
| PSCI 452  | Utopianism and its Critics                  |
| PSCI 453  | Modern Political Theory                     |
| PSCI 471  | American Constitutional Law                 |
| PSCI 474  | Civil Rights                                |
| PSCI 482  | Politics of the World Economy               |

### History, Sociology, and Economics

|                                          |                                                         |   |
|------------------------------------------|---------------------------------------------------------|---|
| Complete three of the following courses: |                                                         | 9 |
| AAST 141H                                | Black: From Africa to Hip-Hop                           |   |
| ECNS 217                                 | Issues in Economic Development                          |   |
| ECNS 312                                 | Labor Economics                                         |   |
| ECNS 313                                 | Money and Banking                                       |   |
| ECNS 320                                 | Public Finance                                          |   |
| ECNS 405                                 | Game Theory                                             |   |
| ECNS 406                                 | Industrial Organization                                 |   |
| ECNS 433                                 | Economics of the Environment                            |   |
| HSTA 101H                                | American History I                                      |   |
| HSTA 102H                                | American History II                                     |   |
| HSTA 103H                                | Honors American History I                               |   |
| HSTA 104H                                | Honors American History II                              |   |
| HSTA 315                                 | Early American Republic                                 |   |
| HSTA 320                                 | Birth of Modern US                                      |   |
| HSTA 321                                 | America in Crisis                                       |   |
| HSTA 322                                 | U.S. History: WWII to Present                           |   |
| HSTA 323                                 | U.S. in the 1950s                                       |   |
| HSTA 324                                 | U.S. in the 1960s                                       |   |
| HSTA 342H                                | African American History to 1865                        |   |
| HSTA 344                                 | African-American Struggle for Equality                  |   |
| HSTA 361                                 | The American South                                      |   |
| HSTA 364                                 | Native American History to 1830                         |   |
| HSTA 365                                 | Native American History from 1830                       |   |
| HSTA 370H                                | Women in America: Colonial Period to Civil War          |   |
| HSTA 371H                                | Women in America: From the Civil War to the Present     |   |
| HSTA 377                                 | Alcohol in American History                             |   |
| HSTA 380                                 | American Constitutional History                         |   |
| HSTA 382                                 | History of American Law                                 |   |
| HSTA 415                                 | The Black Radical Tradition                             |   |
| HSTA 417                                 | Prayer & Civil Rights                                   |   |
| HSTA 427                                 | Freedom, Slavery, Equality: Early American Perspectives |   |
| HSTR 101H                                | Western Civilization I                                  |   |
| HSTR 102H                                | Western Civilization II                                 |   |

|                    |                                         |           |
|--------------------|-----------------------------------------|-----------|
| HSTR 103H          | Honors Western Civilization I           |           |
| HSTR 104H          | Honors Western Civilization II          |           |
| HSTR 272E          | Terrorism: Violence in the Modern World |           |
| HSTR 351           | Democracy: Ancient to Modern            |           |
| SOCI 211S          | Introduction to Criminology             |           |
| SOCI 220S          | Race, Gender & Class                    |           |
| SOCI 221           | Criminal Justice System                 |           |
| SOCI 325           | Social Stratification                   |           |
| SOCI 332           | Sociology of the Family                 |           |
| SOCI 422           | Sociology of Punishment                 |           |
| SOCI 423           | Sociology of Corrections                |           |
| SOCI 440           | Deviant and Criminal Behavior           |           |
| SOCI 443           | Sociology of Poverty                    |           |
| SOCI 455           | Classical Sociological Theory           |           |
| <b>Total Hours</b> |                                         | <b>27</b> |

## Pre-Law Certificate

The Pre-Law Certificate offers UM students interested in pursuing a legal career the opportunity to become well-prepared applicants for law school. The certificate includes a Freshman Seminar that sets students up for success by helping take their education and personal development into their own hands and on the right track. In their sophomore year, students are required to engage in an internship, study abroad, research, or any other real-life educational experience. In their third year, students take the pre-law seminar in which they become familiar with the application process and the expectations of the legal profession as well as a course fostering their analytical thinking skills to prepare for the LSAT. Finally, seniors complete a capstone project.

The UM Pre-Law Program team recommends that students also consider pursuing the Philosophy, Politics, and Law Certificate (p. 252) in order to gain substantial understanding of the legal and political systems from a variety of disciplinary perspectives.

## General Certificate Requirements

Additional requirements for graduation can be found on the Degree/Certificate Requirements for Graduation page (p. 36).

Unless otherwise noted in individual program requirements, a minimum grade point average of 2.00 in all work attempted at the University of Montana-Missoula is required for graduation. Please see the Academic Policies and Procedures page (p. 25) for information on how your GPA is calculated.

Courses taken to satisfy the requirements of a major, minor, or certificate program must be completed with a grade of C- or better unless a higher grade is noted in the program requirements.

## Post-Secondary Certificate - Pre-Law

- This certificate requires a minimum grade of C in all courses.

### Course Requirements

| Code                                   | Title                   | Hours |
|----------------------------------------|-------------------------|-------|
| Complete all of the following courses: |                         |       |
| HONR 130                               | Introduction to Pre-Law | 2     |
| HONR 370                               | Pre-Law Seminar         | 2     |
| PHL 318                                | Applied Logic           | 3     |

|                                                                    |    |
|--------------------------------------------------------------------|----|
| Complete all of the following high-impact educational experiences: |    |
| Internship, research, study abroad, or service learning            | 3  |
| Capstone Project                                                   | 3  |
| Total Hours                                                        | 13 |

## Philosophy Minor

### General Degree Requirements

To earn a baccalaureate degree, all students must complete successfully, in addition to any other requirements, the University of Montana General Education Requirements. Please refer to the General Education Requirements page (p. 39) for more information.

Additional requirements for graduation can be found on the Degree/Certificate Requirements for Graduation page (p. 36).

Unless otherwise noted in individual program requirements, a minimum grade point average of 2.00 in all work attempted at the University of Montana-Missoula is required for graduation. Please see the Academic Policies and Procedures page (p. 25) for information on how your GPA is calculated.

Courses taken to satisfy the requirements of a major, minor, or certificate program must be completed with a grade of C- or better unless a higher grade is noted in the program requirements.

## Minor - Philosophy

### Course Requirements

| Code                                                                                                         | Title                          | Hours |
|--------------------------------------------------------------------------------------------------------------|--------------------------------|-------|
| Lower Division Core                                                                                          |                                |       |
| Complete the following course:                                                                               |                                |       |
| PHL 210E                                                                                                     | Moral Philosophy               | 3     |
| Complete one of the following courses:                                                                       |                                |       |
| PHL 233                                                                                                      | Intro to Logic: Deduction      |       |
| PHL 261Y                                                                                                     | History of Ancient Philosophy  |       |
| PHL 262Y                                                                                                     | History of Modern Philosophy   |       |
| Electives <sup>1</sup>                                                                                       |                                |       |
| Complete four of the following courses; at least two courses must be at the 300-level or higher (6 credits). |                                |       |
| PHL 101L                                                                                                     | Introduction to Philosophy     |       |
| PHL 102L                                                                                                     | Introduction to Existentialism |       |
| PHL 110E                                                                                                     | Introduction to Ethics         |       |
| PHL 112E                                                                                                     | Intro Ethics and Environment   |       |
| PHL 114E                                                                                                     | Intro to Political Ethics      |       |
| PHL 191                                                                                                      | Special Topics                 |       |
| PHL 241N                                                                                                     | Hist & Philosophy of Science   |       |
| PHL 291                                                                                                      | Special Topics                 |       |
| PHL 292                                                                                                      | Independent Study              |       |
| PHL 309E                                                                                                     | The Art of Living              |       |
| PHL 316                                                                                                      | Historical Figures in Phil     |       |
| PHL 317E                                                                                                     | Law and Morality               |       |
| PHL 319E                                                                                                     | Law and Discrimination         |       |
| PHL 321E                                                                                                     | Philosophy & Biomedical Ethics |       |
| PHL 323                                                                                                      | Ethics of Climate Change       |       |

|             |                                           |    |
|-------------|-------------------------------------------|----|
| PHL 327L    | Aesthetics and the Arts                   |    |
| PHL 390     | Research                                  |    |
| PHL 391     | Special Topics                            |    |
| PHL 392     | Independent Study                         |    |
| PHL 394     | Seminar                                   |    |
| PHL 403     | Wittgenstein                              |    |
| PHL 407     | Epistemology                              |    |
| PHL 422     | Environmental Philosophy                  |    |
| PHL 423     | Science and the Environment               |    |
| PHL 427     | Topics in Philosophy of Art               |    |
| PHL 429     | Philosophy and Literature                 |    |
| PHL 445     |                                           |    |
| PHL 449     | History of Moral and Political Philosophy |    |
| PHL 450     | Contemporary Moral/Political Theory       |    |
| PHL 462     |                                           |    |
| PHL 465     | Plato                                     |    |
| PHL 466     | Aristotle                                 |    |
| PHL 467     |                                           |    |
| PHL 468     | 20th Century Continental Philosophy       |    |
| PHL 469     | Rousseau                                  |    |
| PHL 470     | Hegel                                     |    |
| PHL 472     | Thoreau                                   |    |
| PHL 490     | Undergraduate Research                    |    |
| PHL 491     | Special Topics                            |    |
| PHL 492     | Independent Study                         |    |
| PHL 494     | Seminar                                   |    |
| PHL 498     | Internship                                |    |
| PHL 473     | Nietzsche                                 |    |
| Total Hours |                                           | 18 |

<sup>1</sup> Any course taken to fulfill a lower-division core requirement cannot also count as an elective. Special Topics courses taught at the 400-level (PHL 491) may count as upper-division core courses provided that they have a suitable content. Consult the department advisor for additional information.

## Ethics Minor

Understanding ethical practices and increasing ethical knowledge is important to a successful life, both personally and professionally. Tailored to students majoring in other disciplines, UM-Missoula's Ethics Minor is designed to enhance the capacities of critical thinking, social engagement, and reflection on major moral issues. The interdisciplinary curriculum provides students with training in ethical frameworks and methods to help ensure successful execution of both future professional duties and personal endeavors. Students will acquire tools for critical reflection that will help them to address the major moral challenges of the 21st century, and strengthen their ability to pursue careers in business, science, journalism, advocacy, nonprofit work, law, and health care (among others).

## General Degree Requirements

To earn a baccalaureate degree, all students must complete successfully, in addition to any other requirements, the University of Montana General Education Requirements. Please refer to the General Education Requirements page (p. 39) for more information.

Additional requirements for graduation can be found on the Degree/Certificate Requirements for Graduation page (p. 36).

Unless otherwise noted in individual program requirements, a minimum grade point average of 2.00 in all work attempted at the University of Montana-Missoula is required for graduation. Please see the Academic Policies and Procedures page (p. 25) for information on how your GPA is calculated.

Courses taken to satisfy the requirements of a major, minor, or certificate program must be completed with a grade of C- or better unless a higher grade is noted in the program requirements.

## Minor - Ethics

- At least 6 credits for this certificate must be in courses numbered 300 and higher.

### Course Requirements

| Code                                                                               | Title                                     | Hours |
|------------------------------------------------------------------------------------|-------------------------------------------|-------|
| <b>Lower-Division Ethics/Value Requirement</b>                                     |                                           |       |
| Complete one of the following courses:                                             |                                           | 3     |
| PHL 110E                                                                           | Introduction to Ethics                    |       |
| PHL 112E                                                                           | Intro Ethics and Environment              |       |
| PHL 114E                                                                           | Intro to Political Ethics                 |       |
| PHL 210E                                                                           | Moral Philosophy                          |       |
| <b>Upper-Division Ethics/Value Requirement <sup>1</sup></b>                        |                                           | 6     |
| Complete two of the following courses:                                             |                                           |       |
| PHL 309E                                                                           | The Art of Living                         |       |
| PHL 317E                                                                           | Law and Morality                          |       |
| PHL 319E                                                                           | Law and Discrimination                    |       |
| PHL 321E                                                                           | Philosophy & Biomedical Ethics            |       |
| PHL 323                                                                            | Ethics of Climate Change                  |       |
| PHL 327L                                                                           | Aesthetics and the Arts                   |       |
| PHL 422                                                                            | Environmental Philosophy                  |       |
| PHL 424                                                                            | Environmental Aesthetics                  |       |
| PHL 427                                                                            | Topics in Philosophy of Art               |       |
| PHL 429                                                                            | Philosophy and Literature                 |       |
| PHL 448                                                                            | Philosophy and Animals                    |       |
| PHL 449                                                                            | History of Moral and Political Philosophy |       |
| PHL 450                                                                            | Contemporary Moral/Political Theory       |       |
| PHL 451                                                                            | Justice                                   |       |
| PHL 456                                                                            | Iris Murdoch's Ethics                     |       |
| PHL 469                                                                            | Rousseau                                  |       |
| PHL 472                                                                            | Thoreau                                   |       |
| PHL 473                                                                            | Nietzsche                                 |       |
| <b>Elective Ethics/Value Requirement <sup>2</sup></b>                              |                                           | 9     |
| Complete three of the following courses:                                           |                                           |       |
| Any course approved for the Ethics and Human Values general education requirement. |                                           |       |
| PHL 323                                                                            | Ethics of Climate Change                  |       |
| PHL 327L                                                                           | Aesthetics and the Arts                   |       |
| PHL 422                                                                            | Environmental Philosophy                  |       |
| PHL 424                                                                            | Environmental Aesthetics                  |       |
| PHL 427                                                                            | Topics in Philosophy of Art               |       |
| PHL 429                                                                            | Philosophy and Literature                 |       |



|         |                                           |
|---------|-------------------------------------------|
| PHL 448 | Philosophy and Animals                    |
| PHL 449 | History of Moral and Political Philosophy |
| PHL 450 | Contemporary Moral/Political Theory       |
| PHL 451 | Justice                                   |
| PHL 456 | Iris Murdoch's Ethics                     |
| PHL 469 | Rousseau                                  |
| PHL 472 | Thoreau                                   |
| PHL 473 | Nietzsche                                 |

**Total Hours** **18**

<sup>1</sup> Special Topics courses taught at the 300- or 400-level (PHL 391, PHL 491) may count as upper-division ethics/value courses at the discretion of the Philosophy Department advisor provided that the course has suitable content.

<sup>2</sup> Courses that satisfy either the Lower-Division Ethics/Value requirement or the Upper-Division Ethics/Value requirement cannot also satisfy the Elective Ethics/Value requirement.

## Political Science

Political Science is the systematic study of politics. Politics influence how people and institutions exercise and resist power. Political Science, therefore, is concerned with how nations and communities are governed and who governs them. The departmental faculty members have as their mission the engagement and enlightenment of their students, professional colleagues, and fellow citizens about the nature of politics.

The department offers a varied undergraduate curriculum covering domestic, foreign, and international politics. By meeting the requirements outlined below, a student may earn a bachelor's degree in political science or in political science-history; a minor in political science or global public health; or a bachelor's degree in political science with a concentration in one of the following: American politics, international relations and comparative politics, public administration and public policy, non-profit administration, international development studies, or public law. A Master of Arts degree in political science and a Master of Public Administration degree are also offered.

The scope of the faculty's interest and research is wide. They bring special insights gained through study and residence in Europe, Russia, Africa, Central Asia, India, the Far East and Latin America, as well as in Montana and Washington, D.C.

Courses offered in the department are designed to: (1) assist students to secure a broad liberal education and to equip them with the foundations for American citizenship; (2) provide undergraduate preparation for those students who propose to continue study at the graduate level with the ultimate goal of college teaching and research; (3) offer a broad program of training for those students who plan careers in government or politics; 4) assist in preparing students for careers in teaching at both the elementary and secondary levels; (5) provide a sound background for those students who intend to enroll in law and other professional schools.

The major fields of political science are (1) American government and politics with national, state and local government, and public law as sub-fields; (2) public administration and public policy; (3) political theory; (4) comparative government; (5) international relations, organization and law. Majors are eligible for membership in Pi Sigma Alpha, the national political science honorary and are active in student political activities. The Department of Political Science secures a number of legislative

and administrative internships in state and local government each year. Internships and other learning opportunities in Washington, D.C., are also available.

- Political Science B.A. (p. 256)
- Political Science B.A. - American Politics (p. 258)
- Political Science B.A. - International Relations and Comparative Politics (p. 259)
- Political Science B.A. - Political Science Education (p. 261)
- Political Science B.A. - Public Administration and Public Policy (p. 262)
- Political Science B.A. - Public Law & Political Theory (p. 264)
- Political Science Minor (p. 265)
- Political Science Education Minor (p. 266)
- Migration Studies Certificate (p. 268)

## Political Science B.A. General Degree Requirements

To earn a baccalaureate degree, all students must complete successfully, in addition to any other requirements, the University of Montana General Education Requirements. Please refer to the General Education Requirements page (p. 39) for more information.

Additional requirements for graduation can be found on the Degree/Certificate Requirements for Graduation page (p. 36).

Unless otherwise noted in individual program requirements, a minimum grade point average of 2.00 in all work attempted at the University of Montana-Missoula is required for graduation. Please see the Academic Policies and Procedures page (p. 25) for information on how your GPA is calculated.

Courses taken to satisfy the requirements of a major, minor, or certificate program must be completed with a grade of C- or better unless a higher grade is noted in the program requirements.

## Bachelor of Arts - Political Science

- Students pursuing a Major in Political Science must take a minimum of 37 credits of political science (PSCI) courses, including one 300-400 level course in four of the five major fields.
- 21 of the 37 credits must be in upper-division courses.
- No more than 7 credits of PSCI 492 and PSCI 498 combined may count toward the 37 required credits.
- An internship is strongly recommended.

### Course Requirements

| Code                                   | Title                            | Hours |
|----------------------------------------|----------------------------------|-------|
| <b>Lower-Division Required Courses</b> |                                  |       |
| Complete all of the following courses: |                                  |       |
| PSCI 210S                              | Intro to American Government     | 3     |
| PSCI 220S                              | Intro to Comparative Government  | 3     |
| PSCI 230X                              | Intro to International Relations | 3     |
| PSCI 250E                              | Intro to Political Theory        | 3     |
| <b>Advanced Writing Requirement</b>    |                                  |       |
| Complete the following course:         |                                  |       |

PSCI 400 Advanced Writing in Political Science 1

### Required Upper Division Field Courses

Complete one upper-division course in four of the five fields listed below.<sup>1</sup> 12

#### Public Administration and Public Policy

NPAD 466 Practical Applications in Nonprofit Administration

NPAD 467 Advanced Nonprofit Admin

PSCI 335 American Foreign Policy

PSCI 344 State and Local Government

PSCI 348 US Multicultural Politics

PSCI 349 Montana Government and Politics

PSCI 360 Experimental Offering: Public Administration

PSCI 361 Public Administration

PSCI 365 Public Policy Issues and Analysis

PSCI 377 Global Health Issues

PSCI 431 Politics of Global Migration

PSCI 448 Health Care Policy

PSCI 460 Experimental Offering: Public Administration

PSCI 463 Development Administration

PSCI 469 Ethics and Public Policy

PSCI 524 Management and Policy Skills (enrollment with consent of instructor)

#### Political Theory

HONR 394 Interdisciplinary Colloquium (Democracy)

PSCI 350 Experimental Offering: Political Theory

PSCI 352Y American Political Thought

PSCI 354 Contemporary Issues in Political Theory

PSCI 450 Experimental Offering: Political Theory

PSCI 452 Utopianism and its Critics

PSCI 453 Modern Political Theory

#### Comparative Government

NASX 475 Tribal Sovereignty

PSCI 311 Revolution & Reform in Modern China

PSCI 320 Experimental Offering: Comparative Politics

PSCI 322 Politics of Europe

PSCI 325 Politics of Latin America

PSCI 326 Politics of Africa

PSCI 327 Politics of Mexico

PSCI 328 Politics of China

PSCI 377 Global Health Issues

PSCI 381 State Formation

PSCI 420 Experimental Offering: Comparative Politics

PSCI 443 Politics of Social Movements

PSCI 481 Origins of Democracy and Authoritarianism

#### International Relations

PSCI 330 Experimental Offering: International Relations

PSCI 332 Global Environmental Politics

PSCI 334 International Security

PSCI 335 American Foreign Policy

PSCI 336 European Union

PSCI 337 Model United Nations

PSCI 430 Experimental Offering: International Relations

PSCI 431 Politics of Global Migration

PSCI 433 International Law & Organization

PSCI 463 Development Administration

PSCI 482 Politics of the World Economy

#### American Politics

HONR 394 Interdisciplinary Colloquium (Democracy)

PSCI 335 American Foreign Policy

PSCI 340 Experimental Offering: American Government

PSCI 342 Media, Public Opinion, Polling

PSCI 344 State and Local Government

PSCI 345 American Political System

PSCI 348 US Multicultural Politics

PSCI 349 Montana Government and Politics

PSCI 352Y American Political Thought

PSCI 365 Public Policy Issues and Analysis

PSCI 370 Courts and Judicial Politics

PSCI 440 Experimental Offering: American Government

PSCI 443 Politics of Social Movements

PSCI 444 American Political Participation

PSCI 445 Political Psychology

PSCI 448 Health Care Policy

PSCI 471 American Constitutional Law

PSCI 474 Civil Rights

#### Electives

Complete twelve additional elective credits from PSCI courses numbered 300 and above. 12

**Total Hours 37**

<sup>1</sup> PSCI 480 may apply to any of the categories with the consent of the instructor. Courses may only count toward one category of requirements.

## Four Year Plan

| Course                   | Title                            | Hours     |
|--------------------------|----------------------------------|-----------|
| <b>Freshman</b>          |                                  |           |
| <b>Autumn</b>            |                                  |           |
| PSCI 210S                | Intro to American Government     | 3         |
| PSCI 220S                | Intro to Comparative Government  | 3         |
| WRIT 101                 | College Writing I                | 4         |
| Foreign Language         |                                  | 4         |
| General Education Course |                                  | 3         |
| <b>Hours</b>             |                                  | <b>17</b> |
| <b>Spring</b>            |                                  |           |
| PSCI 230X                | Intro to International Relations | 3         |
| PSCI 250E                | Intro to Political Theory        | 3         |
| Foreign Language         |                                  | 4         |
| Contemporary Math        |                                  | 3         |

|                          |                                       |     |
|--------------------------|---------------------------------------|-----|
| General Education Course |                                       | 3   |
| Hours                    |                                       | 16  |
| Sophomore                |                                       |     |
| Autumn                   |                                       |     |
| PSCI 300+ Field Course   |                                       | 6   |
| General Education Course |                                       | 3   |
| Elective                 |                                       | 5   |
| Hours                    |                                       | 14  |
| Spring                   |                                       |     |
| PSCI 300+ Field Course   |                                       | 3   |
| Intermediate Writing     |                                       | 3   |
| General Education Course |                                       | 3   |
| Elective                 |                                       | 6   |
| Hours                    |                                       | 15  |
| Junior                   |                                       |     |
| Autumn                   |                                       |     |
| PSCI 300+ Course         |                                       | 3   |
| Elective                 |                                       | 12  |
| Hours                    |                                       | 15  |
| Spring                   |                                       |     |
| PSCI 300+ Course         |                                       | 3   |
| General Education Course |                                       | 3   |
| Elective                 |                                       | 9   |
| Hours                    |                                       | 15  |
| Senior                   |                                       |     |
| Autumn                   |                                       |     |
| PSCI 400                 | Advanced Writing in Political Science | 1   |
| PSCI 498                 | Internship                            | 3   |
| PSCI 300+ Course         |                                       | 3   |
| Elective                 |                                       | 7   |
| Hours                    |                                       | 14  |
| Spring                   |                                       |     |
| PSCI 498                 | Internship                            | 3   |
| PSCI 300+ Course         |                                       | 6   |
| Elective                 |                                       | 6   |
| Hours                    |                                       | 15  |
| Total Hours              |                                       | 121 |

Last updated Autumn 2024

Political Science students may select one or more of the following concentrations:

- General Political Science
- American Politics
- International Relations & Comparative Politics

Please speak with your faculty mentor when selecting concentrations. These courses are part of the plan above and do not require additional credits

- Public Administration & Public Policy
- Public Law

# Political Science B.A. - American Politics

## General Degree Requirements

To earn a baccalaureate degree, all students must complete successfully, in addition to any other requirements, the University of Montana

General Education Requirements. Please refer to the General Education Requirements page (p. 39) for more information.

Additional requirements for graduation can be found on the Degree/ Certificate Requirements for Graduation page (p. 36).

Unless otherwise noted in individual program requirements, a minimum grade point average of 2.00 in all work attempted at the University of Montana-Missoula is required for graduation. Please see the Academic Policies and Procedures page (p. 25) for information on how your GPA is calculated.

Courses taken to satisfy the requirements of a major, minor, or certificate program must be completed with a grade of C- or better unless a higher grade is noted in the program requirements.

## Bachelor of Arts - Political Science; American Politics Concentration

- Students pursuing a Major in Political Science must take a minimum of 37 credits of political science (PSCI) courses, including one 300-400 level course in four of the five major fields.
- 21 of the 37 credits must be in upper-division courses.
- No more than 7 credits of PSCI 492 and PSCI 498 combined may count toward the 37 required credits.
- An internship is strongly recommended.
- Students can use the same 300/400 course to fulfill both an upper-division field requirement and the degree electives for the concentration, but they cannot double-count the course credits.

## Course Requirements

| Code                                    | Title                                      | Hours |
|-----------------------------------------|--------------------------------------------|-------|
| Lower-Division Required Courses         |                                            |       |
| Complete all of the following courses:  |                                            |       |
| PSCI 210S                               | Intro to American Government               | 3     |
| PSCI 220S                               | Intro to Comparative Government            | 3     |
| PSCI 230X                               | Intro to International Relations           | 3     |
| PSCI 250E                               | Intro to Political Theory                  | 3     |
| Advanced Writing Requirement            |                                            |       |
| Complete the following course:          |                                            |       |
| PSCI 400                                | Advanced Writing in Political Science      | 1     |
| Electives in American Politics          |                                            |       |
| Complete four of the following courses: |                                            |       |
| PSCI 335                                | American Foreign Policy                    | 12    |
| PSCI 340                                | Experimental Offering: American Government |       |
| PSCI 342                                | Media, Public Opinion, Polling             | 12    |
| PSCI 344                                | State and Local Government                 |       |
| PSCI 345                                | American Political System                  | 12    |
| PSCI 348                                | US Multicultural Politics                  |       |
| PSCI 349                                | Montana Government and Politics            | 12    |
| PSCI 352Y                               | American Political Thought                 |       |
| PSCI 365                                | Public Policy Issues and Analysis          | 12    |
| PSCI 370                                | Courts and Judicial Politics               |       |
| PSCI 440                                | Experimental Offering: American Government | 12    |
| PSCI 443                                | Politics of Social Movements               |       |

|                                                                                          |                                                                      |
|------------------------------------------------------------------------------------------|----------------------------------------------------------------------|
| PSCI 444                                                                                 | American Political Participation                                     |
| PSCI 445                                                                                 | Political Psychology                                                 |
| PSCI 448                                                                                 | Health Care Policy                                                   |
| PSCI 471                                                                                 | American Constitutional Law                                          |
| PSCI 474                                                                                 | Civil Rights                                                         |
| <b>Required Upper Division Field Courses</b>                                             |                                                                      |
| Complete one upper-division course in four of the five fields listed below. <sup>1</sup> | 12                                                                   |
| <b>Public Administration and Public Policy</b>                                           |                                                                      |
| NPAD 466                                                                                 | Practical Applications in Nonprofit Administration                   |
| NPAD 467                                                                                 | Advanced Nonprofit Admin                                             |
| PSCI 335                                                                                 | American Foreign Policy                                              |
| PSCI 344                                                                                 | State and Local Government                                           |
| PSCI 348                                                                                 | US Multicultural Politics                                            |
| PSCI 349                                                                                 | Montana Government and Politics                                      |
| PSCI 360                                                                                 | Experimental Offering: Public Administration                         |
| PSCI 361                                                                                 | Public Administration                                                |
| PSCI 365                                                                                 | Public Policy Issues and Analysis                                    |
| PSCI 377                                                                                 | Global Health Issues                                                 |
| PSCI 431                                                                                 | Politics of Global Migration                                         |
| PSCI 448                                                                                 | Health Care Policy                                                   |
| PSCI 460                                                                                 | Experimental Offering: Public Administration                         |
| PSCI 463                                                                                 | Development Administration                                           |
| PSCI 469                                                                                 | Ethics and Public Policy                                             |
| PSCI 524                                                                                 | Management and Policy Skills (enrollment with consent of instructor) |
| <b>Political Theory</b>                                                                  |                                                                      |
| HONR 394                                                                                 | Interdisciplinary Colloquium (Democracy)                             |
| PSCI 350                                                                                 | Experimental Offering: Political Theory                              |
| PSCI 352Y                                                                                | American Political Thought                                           |
| PSCI 354                                                                                 | Contemporary Issues in Political Theory                              |
| PSCI 450                                                                                 | Experimental Offering: Political Theory                              |
| PSCI 452                                                                                 | Utopianism and its Critics                                           |
| PSCI 453                                                                                 | Modern Political Theory                                              |
| <b>Comparative Government</b>                                                            |                                                                      |
| NASX 475                                                                                 | Tribal Sovereignty                                                   |
| PSCI 311                                                                                 | Revolution & Reform in Modern China                                  |
| PSCI 320                                                                                 | Experimental Offering: Comparative Politics                          |
| PSCI 322                                                                                 | Politics of Europe                                                   |
| PSCI 325                                                                                 | Politics of Latin America                                            |
| PSCI 326                                                                                 | Politics of Africa                                                   |
| PSCI 327                                                                                 | Politics of Mexico                                                   |
| PSCI 328                                                                                 | Politics of China                                                    |
| PSCI 377                                                                                 | Global Health Issues                                                 |
| PSCI 381                                                                                 | State Formation                                                      |
| PSCI 420                                                                                 | Experimental Offering: Comparative Politics                          |
| PSCI 443                                                                                 | Politics of Social Movements                                         |
| PSCI 481                                                                                 | Origins of Democracy and Authoritarianism                            |
| <b>International Relations</b>                                                           |                                                                      |

|                          |                                                |
|--------------------------|------------------------------------------------|
| PSCI 330                 | Experimental Offering: International Relations |
| PSCI 332                 | Global Environmental Politics                  |
| PSCI 334                 | International Security                         |
| PSCI 335                 | American Foreign Policy                        |
| PSCI 336                 | European Union                                 |
| PSCI 337                 | Model United Nations                           |
| PSCI 430                 | Experimental Offering: International Relations |
| PSCI 431                 | Politics of Global Migration                   |
| PSCI 433                 | International Law & Organization               |
| PSCI 463                 | Development Administration                     |
| PSCI 482                 | Politics of the World Economy                  |
| <b>American Politics</b> |                                                |
| HONR 394                 | Interdisciplinary Colloquium (Democracy)       |
| PSCI 335                 | American Foreign Policy                        |
| PSCI 340                 | Experimental Offering: American Government     |
| PSCI 342                 | Media, Public Opinion, Polling                 |
| PSCI 344                 | State and Local Government                     |
| PSCI 345                 | American Political System                      |
| PSCI 348                 | US Multicultural Politics                      |
| PSCI 349                 | Montana Government and Politics                |
| PSCI 352Y                | American Political Thought                     |
| PSCI 365                 | Public Policy Issues and Analysis              |
| PSCI 370                 | Courts and Judicial Politics                   |
| PSCI 440                 | Experimental Offering: American Government     |
| PSCI 443                 | Politics of Social Movements                   |
| PSCI 444                 | American Political Participation               |
| PSCI 445                 | Political Psychology                           |
| PSCI 448                 | Health Care Policy                             |
| PSCI 471                 | American Constitutional Law                    |
| PSCI 474                 | Civil Rights                                   |

**Total Hours****37**

<sup>1</sup> PSCI 480 may apply to any of the categories with the consent of the instructor. Courses may only count toward one category of requirements.

## Political Science B.A. - International Relations and Comparative Politics

### General Degree Requirements

To earn a baccalaureate degree, all students must complete successfully, in addition to any other requirements, the University of Montana General Education Requirements. Please refer to the General Education Requirements page (p. 39) for more information.

Additional requirements for graduation can be found on the Degree/Certificate Requirements for Graduation page (p. 36).

Unless otherwise noted in individual program requirements, a minimum grade point average of 2.00 in all work attempted at the University of

Montana-Missoula is required for graduation. Please see the Academic Policies and Procedures page (p. 25) for information on how your GPA is calculated.

Courses taken to satisfy the requirements of a major, minor, or certificate program must be completed with a grade of C- or better unless a higher grade is noted in the program requirements.

## Bachelor of Arts - Political Science; International Relations and Comparative Politics Concentration

- Students pursuing a Major in Political Science must take a minimum of 37 credits of political science (PSCI) courses, including one 300-400 level course in four of the five major fields.
- 21 of the 37 credits must be in upper-division courses.
- No more than 7 credits of PSCI 492 and PSCI 498 combined may count toward the 37 required credits.
- To complete the concentration with 37 credits, students should complete the four Required Upper-Division Field Courses with one course from the International Relations list and one course from the Comparative Government list. As shown below, students who do so need just four additional courses in IR and Comparative to complete the concentration.
- Two years of language study and/or a study-abroad program is strongly recommended.
- An internship is strongly recommended.

### Course Requirements

| Code                                                                 | Title                                          | Hours |
|----------------------------------------------------------------------|------------------------------------------------|-------|
| <b>Lower-Division Required Courses</b>                               |                                                |       |
| Complete all of the following courses:                               |                                                |       |
| PSCI 210S                                                            | Intro to American Government                   | 3     |
| PSCI 220S                                                            | Intro to Comparative Government                | 3     |
| PSCI 230X                                                            | Intro to International Relations               | 3     |
| PSCI 250E                                                            | Intro to Political Theory                      | 3     |
| <b>Advanced Writing Requirement</b>                                  |                                                |       |
| Complete the following course:                                       |                                                |       |
| PSCI 400                                                             | Advanced Writing in Political Science          | 1     |
| <b>Electives in International Relations and Comparative Politics</b> |                                                |       |
| Complete 4 of the following courses:                                 |                                                | 12    |
| PSCI 311                                                             | Revolution & Reform in Modern China            |       |
| PSCI 320                                                             | Experimental Offering: Comparative Politics    |       |
| PSCI 322                                                             | Politics of Europe                             |       |
| PSCI 325                                                             | Politics of Latin America                      |       |
| PSCI 326                                                             | Politics of Africa                             |       |
| PSCI 327                                                             | Politics of Mexico                             |       |
| PSCI 328                                                             | Politics of China                              |       |
| PSCI 330                                                             | Experimental Offering: International Relations |       |
| PSCI 332                                                             | Global Environmental Politics                  |       |
| PSCI 334                                                             | International Security                         |       |
| PSCI 335                                                             | American Foreign Policy                        |       |
| PSCI 336                                                             | European Union                                 |       |
| PSCI 337                                                             | Model United Nations                           |       |

|                                                                                          |                                                                      |
|------------------------------------------------------------------------------------------|----------------------------------------------------------------------|
| PSCI 377                                                                                 | Global Health Issues                                                 |
| PSCI 381                                                                                 | State Formation                                                      |
| PSCI 420                                                                                 | Experimental Offering: Comparative Politics                          |
| PSCI 430                                                                                 | Experimental Offering: International Relations                       |
| PSCI 431                                                                                 | Politics of Global Migration                                         |
| PSCI 433                                                                                 | International Law & Organization                                     |
| PSCI 443                                                                                 | Politics of Social Movements                                         |
| PSCI 463                                                                                 | Development Administration                                           |
| PSCI 481                                                                                 | Origins of Democracy and Authoritarianism                            |
| PSCI 482                                                                                 | Politics of the World Economy                                        |
| <b>Required Upper Division Field Courses</b>                                             |                                                                      |
| Complete one upper-division course in four of the five fields listed below. <sup>1</sup> |                                                                      |
| <b>Public Administration and Public Policy</b>                                           |                                                                      |
| NPAD 466                                                                                 | Practical Applications in Nonprofit Administration                   |
| NPAD 467                                                                                 | Advanced Nonprofit Admin                                             |
| PSCI 335                                                                                 | American Foreign Policy                                              |
| PSCI 344                                                                                 | State and Local Government                                           |
| PSCI 348                                                                                 | US Multicultural Politics                                            |
| PSCI 349                                                                                 | Montana Government and Politics                                      |
| PSCI 360                                                                                 | Experimental Offering: Public Administration                         |
| PSCI 361                                                                                 | Public Administration                                                |
| PSCI 365                                                                                 | Public Policy Issues and Analysis                                    |
| PSCI 377                                                                                 | Global Health Issues                                                 |
| PSCI 431                                                                                 | Politics of Global Migration                                         |
| PSCI 448                                                                                 | Health Care Policy                                                   |
| PSCI 460                                                                                 | Experimental Offering: Public Administration                         |
| PSCI 463                                                                                 | Development Administration                                           |
| PSCI 469                                                                                 | Ethics and Public Policy                                             |
| PSCI 524                                                                                 | Management and Policy Skills (enrollment with consent of instructor) |
| <b>Political Theory</b>                                                                  |                                                                      |
| HONR 394                                                                                 | Interdisciplinary Colloquium (Democracy)                             |
| PSCI 350                                                                                 | Experimental Offering: Political Theory                              |
| PSCI 352Y                                                                                | American Political Thought                                           |
| PSCI 354                                                                                 | Contemporary Issues in Political Theory                              |
| PSCI 450                                                                                 | Experimental Offering: Political Theory                              |
| PSCI 452                                                                                 | Utopianism and its Critics                                           |
| PSCI 453                                                                                 | Modern Political Theory                                              |
| <b>Comparative Government</b>                                                            |                                                                      |
| NASX 475                                                                                 | Tribal Sovereignty                                                   |
| PSCI 311                                                                                 | Revolution & Reform in Modern China                                  |
| PSCI 320                                                                                 | Experimental Offering: Comparative Politics                          |
| PSCI 322                                                                                 | Politics of Europe                                                   |
| PSCI 325                                                                                 | Politics of Latin America                                            |
| PSCI 326                                                                                 | Politics of Africa                                                   |
| PSCI 327                                                                                 | Politics of Mexico                                                   |
| PSCI 328                                                                                 | Politics of China                                                    |
| PSCI 377                                                                                 | Global Health Issues                                                 |



|                                |                                                |
|--------------------------------|------------------------------------------------|
| PSCI 381                       | State Formation                                |
| PSCI 420                       | Experimental Offering: Comparative Politics    |
| PSCI 443                       | Politics of Social Movements                   |
| PSCI 481                       | Origins of Democracy and Authoritarianism      |
| <b>International Relations</b> |                                                |
| PSCI 330                       | Experimental Offering: International Relations |
| PSCI 332                       | Global Environmental Politics                  |
| PSCI 334                       | International Security                         |
| PSCI 335                       | American Foreign Policy                        |
| PSCI 336                       | European Union                                 |
| PSCI 337                       | Model United Nations                           |
| PSCI 430                       | Experimental Offering: International Relations |
| PSCI 431                       | Politics of Global Migration                   |
| PSCI 433                       | International Law & Organization               |
| PSCI 463                       | Development Administration                     |
| PSCI 482                       | Politics of the World Economy                  |
| <b>American Politics</b>       |                                                |
| HONR 394                       | Interdisciplinary Colloquium (Democracy)       |
| PSCI 335                       | American Foreign Policy                        |
| PSCI 340                       | Experimental Offering: American Government     |
| PSCI 342                       | Media, Public Opinion, Polling                 |
| PSCI 344                       | State and Local Government                     |
| PSCI 345                       | American Political System                      |
| PSCI 348                       | US Multicultural Politics                      |
| PSCI 349                       | Montana Government and Politics                |
| PSCI 352Y                      | American Political Thought                     |
| PSCI 365                       | Public Policy Issues and Analysis              |
| PSCI 370                       | Courts and Judicial Politics                   |
| PSCI 440                       | Experimental Offering: American Government     |
| PSCI 443                       | Politics of Social Movements                   |
| PSCI 444                       | American Political Participation               |
| PSCI 445                       | Political Psychology                           |
| PSCI 448                       | Health Care Policy                             |
| PSCI 471                       | American Constitutional Law                    |
| PSCI 474                       | Civil Rights                                   |

**Total Hours****37**

<sup>1</sup> PSCI 480 may apply to any of the categories with the consent of the instructor. Courses may only count toward one category of requirements.

## Political Science B.A. - Political Science Education

- This concentration contains course requirements designed to meet state standards. Those interested in teaching in K-12 schools must complete the education/teaching concentration of a major in a teaching content area plus the Teacher Education Program through the Department of Teaching and Learning. Additional teaching

areas can be added through completion of the education/teaching concentration of a major or education/teaching minor in that content area.

- Secondary Education Licensure Program (<https://www.umt.edu/education/departments/teaching-and-learning/tep/>)
- Licensure Degree Requirements (p. 151)
- To complete this concentration, you need to contact the Teaching and Learning Department. Approvals for this track must come from the Teaching and Learning Department.
- For an endorsement in the major teaching field of Government, a student must complete the requirements for the B.A. degree with a major in Political Science (see below). Individuals holding a baccalaureate degree must meet these requirements by completing the courses listed below or demonstrate course equivalency. This does not qualify as a single-field endorsement. The demand for teaching in this field is limited. The required second endorsement (either a teaching major or a teaching minor) should be in a field in high demand.

## General Degree Requirements

To earn a baccalaureate degree, all students must complete successfully, in addition to any other requirements, the University of Montana General Education Requirements. Please refer to the General Education Requirements page (p. 39) for more information.

Additional requirements for graduation can be found on the Degree/Certificate Requirements for Graduation page (p. 36).

Unless otherwise noted in individual program requirements, a minimum grade point average of 2.00 in all work attempted at the University of Montana-Missoula is required for graduation. Please see the Academic Policies and Procedures page (p. 25) for information on how your GPA is calculated.

Courses taken to satisfy the requirements of a major, minor, or certificate program must be completed with a grade of C- or better unless a higher grade is noted in the program requirements.

## Bachelor of Arts - Political Science; Political Science Education Concentration

- Students pursuing a Major in Political Science must take a minimum of 37 credits of political science (PSCI) courses, including one 300-400 level course in four of the five major fields.
- 21 of the 37 credits must be in upper-division courses.
- No more than 7 credits of PSCI 492 and PSCI 498 combined may count toward the 37 required credits.

## Course Requirements

| Code                                   | Title                                 | Hours |
|----------------------------------------|---------------------------------------|-------|
| <b>Lower-Division Required Courses</b> |                                       |       |
| Complete all of the following courses: |                                       |       |
| PSCI 210S                              | Intro to American Government          | 3     |
| PSCI 220S                              | Intro to Comparative Government       | 3     |
| PSCI 230X                              | Intro to International Relations      | 3     |
| PSCI 250E                              | Intro to Political Theory             | 3     |
| <b>Advanced Writing Requirement</b>    |                                       |       |
| Complete the following course:         |                                       |       |
| PSCI 400                               | Advanced Writing in Political Science | 1     |

**Required Upper Division Field Courses**

Complete one upper-division course in four of the five fields listed below.<sup>1</sup> 12

**Public Administration and Public Policy**

NPAD 466 Practical Applications in Nonprofit Administration

NPAD 467 Advanced Nonprofit Admin

PSCI 335 American Foreign Policy

PSCI 344 State and Local Government

PSCI 348 US Multicultural Politics

PSCI 349 Montana Government and Politics

PSCI 360 Experimental Offering: Public Administration

PSCI 361 Public Administration

PSCI 365 Public Policy Issues and Analysis

PSCI 377 Global Health Issues

PSCI 431 Politics of Global Migration

PSCI 448 Health Care Policy

PSCI 460 Experimental Offering: Public Administration

PSCI 463 Development Administration

PSCI 469 Ethics and Public Policy

PSCI 524 Management and Policy Skills (enrollment with consent of instructor)

**Political Theory**

HONR 394 Interdisciplinary Colloquium (Democracy)

PSCI 350 Experimental Offering: Political Theory

PSCI 352Y American Political Thought

PSCI 354 Contemporary Issues in Political Theory

PSCI 450 Experimental Offering: Political Theory

PSCI 452 Utopianism and its Critics

PSCI 453 Modern Political Theory

**Comparative Government**

NASX 475 Tribal Sovereignty

PSCI 311 Revolution & Reform in Modern China

PSCI 320 Experimental Offering: Comparative Politics

PSCI 322 Politics of Europe

PSCI 325 Politics of Latin America

PSCI 326 Politics of Africa

PSCI 327 Politics of Mexico

PSCI 328 Politics of China

PSCI 377 Global Health Issues

PSCI 381 State Formation

PSCI 420 Experimental Offering: Comparative Politics

PSCI 443 Politics of Social Movements

PSCI 481 Origins of Democracy and Authoritarianism

**International Relations**

PSCI 330 Experimental Offering: International Relations

PSCI 332 Global Environmental Politics

PSCI 334 International Security

PSCI 335 American Foreign Policy

PSCI 336 European Union

PSCI 337 Model United Nations

PSCI 430 Experimental Offering: International Relations

PSCI 431 Politics of Global Migration

PSCI 433 International Law & Organization

PSCI 463 Development Administration

PSCI 482 Politics of the World Economy

**American Politics**

HONR 394 Interdisciplinary Colloquium (Democracy)

PSCI 335 American Foreign Policy

PSCI 340 Experimental Offering: American Government

PSCI 342 Media, Public Opinion, Polling

PSCI 344 State and Local Government

PSCI 345 American Political System

PSCI 348 US Multicultural Politics

PSCI 349 Montana Government and Politics

PSCI 352Y American Political Thought

PSCI 365 Public Policy Issues and Analysis

PSCI 370 Courts and Judicial Politics

PSCI 440 Experimental Offering: American Government

PSCI 443 Politics of Social Movements

PSCI 444 American Political Participation

PSCI 445 Political Psychology

PSCI 448 Health Care Policy

PSCI 471 American Constitutional Law

PSCI 474 Civil Rights

**Electives**

Complete twelve additional elective credits from PSCI courses numbered 300 and above. 12

**Political Science Education Requirement**

Complete the following course:

EDU 497 Teaching and Assessing 3

**Total Hours** 40

<sup>1</sup> PSCI 480 may apply to any of the categories with the consent of the instructor. Courses may only count toward one category of requirements.

**Secondary Teaching Licensure**

For endorsement to teach this subject, a student also must gain admission to the Teacher Education Program and meet all the requirements for secondary teaching licensure (p. 151). For more information, see the Teaching and Learning Department webpage (<https://www.umt.edu/education/departments/currinst/default.php>).

## Political Science B.A. - Public Administration and Public Policy

### General Degree Requirements

To earn a baccalaureate degree, all students must complete successfully, in addition to any other requirements, the University of Montana

General Education Requirements. Please refer to the General Education Requirements page (p. 39) for more information.

Additional requirements for graduation can be found on the Degree/Certificate Requirements for Graduation page (p. 36).

Unless otherwise noted in individual program requirements, a minimum grade point average of 2.00 in all work attempted at the University of Montana-Missoula is required for graduation. Please see the Academic Policies and Procedures page (p. 25) for information on how your GPA is calculated.

Courses taken to satisfy the requirements of a major, minor, or certificate program must be completed with a grade of C- or better unless a higher grade is noted in the program requirements.

## Bachelor of Arts - Political Science; Public Administration and Public Policy Concentration

- Students pursuing a Major in Political Science must take a minimum of 37 credits of political science (PSCI) courses, including one 300-400 level course in four of the five major fields.
- 21 of the 37 credits must be in upper-division courses.
- No more than 7 credits of PSCI 492 and PSCI 498 combined may count toward the 37 required credits.
- Students can use the same 300/400 course to fulfill both an upper-division field requirement and the degree electives for the concentration, but they cannot double-count the course credits.
- A legislative or administrative internship is strongly recommended.

### Course Requirements

| Code                                                        | Title                                              | Hours |
|-------------------------------------------------------------|----------------------------------------------------|-------|
| <b>Lower-Division Required Courses</b>                      |                                                    |       |
| Complete all of the following courses:                      |                                                    |       |
| PSCI 210S                                                   | Intro to American Government                       | 3     |
| PSCI 220S                                                   | Intro to Comparative Government                    | 3     |
| PSCI 230X                                                   | Intro to International Relations                   | 3     |
| PSCI 250E                                                   | Intro to Political Theory                          | 3     |
| <b>Advanced Writing Requirement</b>                         |                                                    |       |
| Complete the following course:                              |                                                    |       |
| PSCI 400                                                    | Advanced Writing in Political Science              | 1     |
| <b>Electives in Public Administration and Public Policy</b> |                                                    |       |
| Complete four of the following courses:                     |                                                    |       |
| NPAD 466                                                    | Practical Applications in Nonprofit Administration |       |
| NPAD 467                                                    | Advanced Nonprofit Admin                           |       |
| PSCI 335                                                    | American Foreign Policy                            |       |
| PSCI 344                                                    | State and Local Government                         |       |
| PSCI 348                                                    | US Multicultural Politics                          |       |
| PSCI 349                                                    | Montana Government and Politics                    |       |
| PSCI 360                                                    | Experimental Offering: Public Administration       |       |
| PSCI 361                                                    | Public Administration                              |       |
| PSCI 365                                                    | Public Policy Issues and Analysis                  |       |
| PSCI 431                                                    | Politics of Global Migration                       |       |

|                                                                             |                                                                      |
|-----------------------------------------------------------------------------|----------------------------------------------------------------------|
| PSCI 448                                                                    | Health Care Policy                                                   |
| PSCI 460                                                                    | Experimental Offering: Public Administration                         |
| PSCI 463                                                                    | Development Administration                                           |
| PSCI 469                                                                    | Ethics and Public Policy                                             |
| PSCI 480                                                                    | Research Goals and Strategies                                        |
| PSCI 524                                                                    | Management and Policy Skills (enrollment with consent of instructor) |
| <b>Required Upper Division Field Courses</b>                                |                                                                      |
| Complete one upper-division course in four of the five fields listed below. |                                                                      |
| <b>Public Administration and Public Policy</b>                              |                                                                      |
| NPAD 466                                                                    | Practical Applications in Nonprofit Administration                   |
| NPAD 467                                                                    | Advanced Nonprofit Admin                                             |
| PSCI 335                                                                    | American Foreign Policy                                              |
| PSCI 344                                                                    | State and Local Government                                           |
| PSCI 348                                                                    | US Multicultural Politics                                            |
| PSCI 349                                                                    | Montana Government and Politics                                      |
| PSCI 360                                                                    | Experimental Offering: Public Administration                         |
| PSCI 361                                                                    | Public Administration                                                |
| PSCI 365                                                                    | Public Policy Issues and Analysis                                    |
| PSCI 377                                                                    | Global Health Issues                                                 |
| PSCI 431                                                                    | Politics of Global Migration                                         |
| PSCI 448                                                                    | Health Care Policy                                                   |
| PSCI 460                                                                    | Experimental Offering: Public Administration                         |
| PSCI 463                                                                    | Development Administration                                           |
| PSCI 469                                                                    | Ethics and Public Policy                                             |
| PSCI 524                                                                    | Management and Policy Skills (enrollment with consent of instructor) |
| <b>Political Theory</b>                                                     |                                                                      |
| HONR 394                                                                    | Interdisciplinary Colloquium (Democracy)                             |
| PSCI 350                                                                    | Experimental Offering: Political Theory                              |
| PSCI 352Y                                                                   | American Political Thought                                           |
| PSCI 354                                                                    | Contemporary Issues in Political Theory                              |
| PSCI 450                                                                    | Experimental Offering: Political Theory                              |
| PSCI 452                                                                    | Utopianism and its Critics                                           |
| PSCI 453                                                                    | Modern Political Theory                                              |
| <b>Comparative Government</b>                                               |                                                                      |
| NASX 475                                                                    | Tribal Sovereignty                                                   |
| PSCI 311                                                                    | Revolution & Reform in Modern China                                  |
| PSCI 320                                                                    | Experimental Offering: Comparative Politics                          |
| PSCI 322                                                                    | Politics of Europe                                                   |
| PSCI 325                                                                    | Politics of Latin America                                            |
| PSCI 326                                                                    | Politics of Africa                                                   |
| PSCI 327                                                                    | Politics of Mexico                                                   |
| PSCI 328                                                                    | Politics of China                                                    |
| PSCI 377                                                                    | Global Health Issues                                                 |
| PSCI 381                                                                    | State Formation                                                      |
| PSCI 420                                                                    | Experimental Offering: Comparative Politics                          |
| PSCI 443                                                                    | Politics of Social Movements                                         |

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|                                |                                                |
|--------------------------------|------------------------------------------------|
| PSCI 481                       | Origins of Democracy and Authoritarianism      |
| <b>International Relations</b> |                                                |
| PSCI 330                       | Experimental Offering: International Relations |
| PSCI 332                       | Global Environmental Politics                  |
| PSCI 334                       | International Security                         |
| PSCI 335                       | American Foreign Policy                        |
| PSCI 336                       | European Union                                 |
| PSCI 337                       | Model United Nations                           |
| PSCI 430                       | Experimental Offering: International Relations |
| PSCI 431                       | Politics of Global Migration                   |
| PSCI 433                       | International Law & Organization               |
| PSCI 463                       | Development Administration                     |
| PSCI 482                       | Politics of the World Economy                  |
| <b>American Politics</b>       |                                                |
| HONR 394                       | Interdisciplinary Colloquium (Democracy)       |
| PSCI 335                       | American Foreign Policy                        |
| PSCI 340                       | Experimental Offering: American Government     |
| PSCI 342                       | Media, Public Opinion, Polling                 |
| PSCI 344                       | State and Local Government                     |
| PSCI 345                       | American Political System                      |
| PSCI 348                       | US Multicultural Politics                      |
| PSCI 349                       | Montana Government and Politics                |
| PSCI 352Y                      | American Political Thought                     |
| PSCI 365                       | Public Policy Issues and Analysis              |
| PSCI 370                       | Courts and Judicial Politics                   |
| PSCI 440                       | Experimental Offering: American Government     |
| PSCI 443                       | Politics of Social Movements                   |
| PSCI 444                       | American Political Participation               |
| PSCI 445                       | Political Psychology                           |
| PSCI 448                       | Health Care Policy                             |
| PSCI 471                       | American Constitutional Law                    |
| PSCI 474                       | Civil Rights                                   |
| <b>Total Hours</b>             | <b>37</b>                                      |

<sup>1</sup> PSCI 480 may apply to any of the categories with the consent of the instructor. Courses may only count toward one category of requirements.

## Political Science B.A. - Public Law & Political Theory

### General Degree Requirements

To earn a baccalaureate degree, all students must complete successfully, in addition to any other requirements, the University of Montana General Education Requirements. Please refer to the General Education Requirements page (p. 39) for more information.

Additional requirements for graduation can be found on the Degree/Certificate Requirements for Graduation page (p. 36).

Unless otherwise noted in individual program requirements, a minimum grade point average of 2.00 in all work attempted at the University of Montana-Missoula is required for graduation. Please see the Academic Policies and Procedures page (p. 25) for information on how your GPA is calculated.

Courses taken to satisfy the requirements of a major, minor, or certificate program must be completed with a grade of C- or better unless a higher grade is noted in the program requirements.

### Bachelor of Arts - Political Science; Public Law and Political Theory Concentration

- Students pursuing a Major in Political Science must take a minimum of 37 credits of political science (PSCI) courses, including one 300-400 level course in four of the five major fields.
- 21 of the 37 credits must be in upper-division courses.
- No more than 7 credits of PSCI 492 and PSCI 498 combined may count toward the 37 required credits.
- Students can use the same 300/400 course to fulfill both an upper-division field requirement and the degree electives for the concentration requirements, but they cannot double-count the course credits.
- An internship is strongly recommended.

### Course Requirements

| Code                                                  | Title                                     | Hours |
|-------------------------------------------------------|-------------------------------------------|-------|
| <b>Lower-Division Required Courses</b>                |                                           |       |
| Complete all of the following courses:                |                                           |       |
| PSCI 210S                                             | Intro to American Government              | 3     |
| PSCI 220S                                             | Intro to Comparative Government           | 3     |
| PSCI 230X                                             | Intro to International Relations          | 3     |
| PSCI 250E                                             | Intro to Political Theory                 | 3     |
| <b>Advanced Writing Requirement</b>                   |                                           |       |
| Complete the following course:                        |                                           |       |
| PSCI 400                                              | Advanced Writing in Political Science     | 1     |
| <b>Electives in Public Law &amp; Political Theory</b> |                                           |       |
| Complete four of the following courses:               |                                           | 12    |
| NASX 475                                              | Tribal Sovereignty                        |       |
| PSCI 345                                              | American Political System                 |       |
| PSCI 352Y                                             | American Political Thought                |       |
| PSCI 354                                              | Contemporary Issues in Political Theory   |       |
| PSCI 370                                              | Courts and Judicial Politics              |       |
| PSCI 433                                              | International Law & Organization          |       |
| PSCI 445                                              | Political Psychology                      |       |
| PSCI 452                                              | Utopianism and its Critics                |       |
| PSCI 453                                              | Modern Political Theory                   |       |
| PSCI 457                                              | Classical & Medieval Political Philosophy |       |
| PSCI 471                                              | American Constitutional Law               |       |

|                                                                                          |                                                                      |
|------------------------------------------------------------------------------------------|----------------------------------------------------------------------|
| PSCI 474                                                                                 | Civil Rights                                                         |
| <b>Required Upper Division Field Courses</b>                                             |                                                                      |
| Complete one upper-division course in four of the five fields listed below. <sup>1</sup> |                                                                      |
| 12                                                                                       |                                                                      |
| <b>Public Administration and Public Policy</b>                                           |                                                                      |
| NPAD 466                                                                                 | Practical Applications in Nonprofit Administration                   |
| NPAD 467                                                                                 | Advanced Nonprofit Admin                                             |
| PSCI 335                                                                                 | American Foreign Policy                                              |
| PSCI 344                                                                                 | State and Local Government                                           |
| PSCI 348                                                                                 | US Multicultural Politics                                            |
| PSCI 349                                                                                 | Montana Government and Politics                                      |
| PSCI 360                                                                                 | Experimental Offering: Public Administration                         |
| PSCI 361                                                                                 | Public Administration                                                |
| PSCI 365                                                                                 | Public Policy Issues and Analysis                                    |
| PSCI 377                                                                                 | Global Health Issues                                                 |
| PSCI 431                                                                                 | Politics of Global Migration                                         |
| PSCI 448                                                                                 | Health Care Policy                                                   |
| PSCI 460                                                                                 | Experimental Offering: Public Administration                         |
| PSCI 463                                                                                 | Development Administration                                           |
| PSCI 469                                                                                 | Ethics and Public Policy                                             |
| PSCI 524                                                                                 | Management and Policy Skills (enrollment with consent of instructor) |
| <b>Political Theory</b>                                                                  |                                                                      |
| HONR 394                                                                                 | Interdisciplinary Colloquium (Democracy)                             |
| PSCI 350                                                                                 | Experimental Offering: Political Theory                              |
| PSCI 352Y                                                                                | American Political Thought                                           |
| PSCI 354                                                                                 | Contemporary Issues in Political Theory                              |
| PSCI 450                                                                                 | Experimental Offering: Political Theory                              |
| PSCI 452                                                                                 | Utopianism and its Critics                                           |
| PSCI 453                                                                                 | Modern Political Theory                                              |
| <b>Comparative Government</b>                                                            |                                                                      |
| NASX 475                                                                                 | Tribal Sovereignty                                                   |
| PSCI 311                                                                                 | Revolution & Reform in Modern China                                  |
| PSCI 320                                                                                 | Experimental Offering: Comparative Politics                          |
| PSCI 322                                                                                 | Politics of Europe                                                   |
| PSCI 325                                                                                 | Politics of Latin America                                            |
| PSCI 326                                                                                 | Politics of Africa                                                   |
| PSCI 327                                                                                 | Politics of Mexico                                                   |
| PSCI 328                                                                                 | Politics of China                                                    |
| PSCI 377                                                                                 | Global Health Issues                                                 |
| PSCI 381                                                                                 | State Formation                                                      |
| PSCI 420                                                                                 | Experimental Offering: Comparative Politics                          |
| PSCI 443                                                                                 | Politics of Social Movements                                         |
| PSCI 481                                                                                 | Origins of Democracy and Authoritarianism                            |
| <b>International Relations</b>                                                           |                                                                      |
| PSCI 330                                                                                 | Experimental Offering: International Relations                       |
| PSCI 332                                                                                 | Global Environmental Politics                                        |
| PSCI 334                                                                                 | International Security                                               |
| PSCI 335                                                                                 | American Foreign Policy                                              |

|                          |                                                |
|--------------------------|------------------------------------------------|
| PSCI 336                 | European Union                                 |
| PSCI 337                 | Model United Nations                           |
| PSCI 430                 | Experimental Offering: International Relations |
| PSCI 431                 | Politics of Global Migration                   |
| PSCI 433                 | International Law & Organization               |
| PSCI 463                 | Development Administration                     |
| PSCI 482                 | Politics of the World Economy                  |
| <b>American Politics</b> |                                                |
| HONR 394                 | Interdisciplinary Colloquium (Democracy)       |
| PSCI 335                 | American Foreign Policy                        |
| PSCI 340                 | Experimental Offering: American Government     |
| PSCI 342                 | Media, Public Opinion, Polling                 |
| PSCI 344                 | State and Local Government                     |
| PSCI 345                 | American Political System                      |
| PSCI 348                 | US Multicultural Politics                      |
| PSCI 349                 | Montana Government and Politics                |
| PSCI 352Y                | American Political Thought                     |
| PSCI 365                 | Public Policy Issues and Analysis              |
| PSCI 370                 | Courts and Judicial Politics                   |
| PSCI 440                 | Experimental Offering: American Government     |
| PSCI 443                 | Politics of Social Movements                   |
| PSCI 444                 | American Political Participation               |
| PSCI 445                 | Political Psychology                           |
| PSCI 448                 | Health Care Policy                             |
| PSCI 471                 | American Constitutional Law                    |
| PSCI 474                 | Civil Rights                                   |

**Total Hours** 37

<sup>1</sup> PSCI 480 may apply to any of the categories with the consent of the instructor. Courses may only count toward one category of requirements.

## Political Science Minor

### General Degree Requirements

To earn a baccalaureate degree, all students must complete successfully, in addition to any other requirements, the University of Montana General Education Requirements. Please refer to the General Education Requirements page (p. 39) for more information.

Additional requirements for graduation can be found on the Degree/Certificate Requirements for Graduation page (p. 36).

Unless otherwise noted in individual program requirements, a minimum grade point average of 2.00 in all work attempted at the University of Montana-Missoula is required for graduation. Please see the Academic Policies and Procedures page (p. 25) for information on how your GPA is calculated.

Courses taken to satisfy the requirements of a major, minor, or certificate program must be completed with a grade of C- or better unless a higher grade is noted in the program requirements.



## Minor - Political Science

### Course Requirements

| Code                                                                       | Title                                                                | Hours |
|----------------------------------------------------------------------------|----------------------------------------------------------------------|-------|
| <b>Lower-Division Required Courses</b>                                     |                                                                      |       |
| Complete all of the following courses:                                     |                                                                      |       |
| PSCI 210S                                                                  | Intro to American Government                                         | 3     |
| PSCI 220S                                                                  | Intro to Comparative Government                                      | 3     |
| PSCI 230X                                                                  | Intro to International Relations                                     | 3     |
| PSCI 250E                                                                  | Intro to Political Theory                                            | 3     |
| <b>Required Upper Division Field Courses</b>                               |                                                                      |       |
| Complete one course in three of the five fields listed below. <sup>1</sup> |                                                                      | 9     |
| <b>Public Administration and Public Policy</b>                             |                                                                      |       |
| NPAD 466                                                                   | Practical Applications in Nonprofit Administration                   |       |
| NPAD 467                                                                   | Advanced Nonprofit Admin                                             |       |
| PSCI 335                                                                   | American Foreign Policy                                              |       |
| PSCI 344                                                                   | State and Local Government                                           |       |
| PSCI 348                                                                   | US Multicultural Politics                                            |       |
| PSCI 349                                                                   | Montana Government and Politics                                      |       |
| PSCI 360                                                                   | Experimental Offering: Public Administration                         |       |
| PSCI 361                                                                   | Public Administration                                                |       |
| PSCI 365                                                                   | Public Policy Issues and Analysis                                    |       |
| PSCI 377                                                                   | Global Health Issues                                                 |       |
| PSCI 431                                                                   | Politics of Global Migration                                         |       |
| PSCI 448                                                                   | Health Care Policy                                                   |       |
| PSCI 460                                                                   | Experimental Offering: Public Administration                         |       |
| PSCI 463                                                                   | Development Administration                                           |       |
| PSCI 469                                                                   | Ethics and Public Policy                                             |       |
| PSCI 524                                                                   | Management and Policy Skills (enrollment with consent of instructor) |       |
| <b>Political Theory</b>                                                    |                                                                      |       |
| HONR 394                                                                   | Honors Seminar (Democracy)                                           |       |
| PSCI 350                                                                   | Experimental Offering: Political Theory                              |       |
| PSCI 352Y                                                                  | American Political Thought                                           |       |
| PSCI 354                                                                   | Contemporary Issues in Political Theory                              |       |
| PSCI 450                                                                   | Experimental Offering: Political Theory                              |       |
| PSCI 452                                                                   | Utopianism and its Critics                                           |       |
| PSCI 453                                                                   | Modern Political Theory                                              |       |
| <b>Comparative Government</b>                                              |                                                                      |       |
| NASX 475                                                                   | Tribal Sovereignty                                                   |       |
| PSCI 311                                                                   | Revolution & Reform in Modern China                                  |       |
| PSCI 320                                                                   | Experimental Offering: Comparative Politics                          |       |
| PSCI 322                                                                   | Politics of Europe                                                   |       |
| PSCI 325                                                                   | Politics of Latin America                                            |       |
| PSCI 326                                                                   | Politics of Africa                                                   |       |
| PSCI 327                                                                   | Politics of Mexico                                                   |       |
| PSCI 328                                                                   | Politics of China                                                    |       |
| PSCI 377                                                                   | Global Health Issues                                                 |       |
| PSCI 381                                                                   | State Formation                                                      |       |
| PSCI 420                                                                   | Experimental Offering: Comparative Politics                          |       |

|                                |                                                |
|--------------------------------|------------------------------------------------|
| PSCI 443                       | Politics of Social Movements                   |
| PSCI 481                       | Origins of Democracy and Authoritarianism      |
| <b>International Relations</b> |                                                |
| PSCI 330                       | Experimental Offering: International Relations |
| PSCI 332                       | Global Environmental Politics                  |
| PSCI 334                       | International Security                         |
| PSCI 335                       | American Foreign Policy                        |
| PSCI 336                       | European Union                                 |
| PSCI 337                       | Model United Nations                           |
| PSCI 430                       | Experimental Offering: International Relations |
| PSCI 431                       | Politics of Global Migration                   |
| PSCI 433                       | International Law & Organization               |
| PSCI 463                       | Development Administration                     |
| PSCI 482                       | Politics of the World Economy                  |
| <b>American Politics</b>       |                                                |
| HONR 394                       | Honors Seminar (Democracy)                     |
| PSCI 335                       | American Foreign Policy                        |
| PSCI 340                       | Experimental Offering: American Government     |
| PSCI 342                       | Media, Public Opinion, Polling                 |
| PSCI 344                       | State and Local Government                     |
| PSCI 345                       | American Political System                      |
| PSCI 348                       | US Multicultural Politics                      |
| PSCI 349                       | Montana Government and Politics                |
| PSCI 352Y                      | American Political Thought                     |
| PSCI 365                       | Public Policy Issues and Analysis              |
| PSCI 370                       | Courts and Judicial Politics                   |
| PSCI 440                       | Experimental Offering: American Government     |
| PSCI 443                       | Politics of Social Movements                   |
| PSCI 444                       | American Political Participation               |
| PSCI 445                       | Political Psychology                           |
| PSCI 448                       | Health Care Policy                             |
| PSCI 471                       | American Constitutional Law                    |
| PSCI 474                       | Civil Rights                                   |

**Total Hours** **21**

<sup>1</sup> PSCI 480 may apply to any of the categories with the consent of the instructor. Courses may only count toward one category of requirements.

## Political Science Education Minor

- This minor contains course requirements designed to meet state standards. Those interested in teaching in K-12 schools must complete the education/teaching concentration of a major in a teaching content area plus the Teacher Education Program through the Department of Teaching and Learning. Additional teaching areas can be added through completion of the education/teaching concentration of a major or education/teaching minor in that content area.

- Secondary Education Licensure Program (<https://www.umt.edu/education/departments/teaching-and-learning/tep/default.php>)
- Licensure Degree Requirements (p. 151)
- To complete this minor, you need to contact the Teaching and Learning Department. Approvals for this track must come from the Teaching and Learning Department.
- Individuals completing this minor must also complete the education/teaching concentration of a major in another teaching content area.

## General Degree Requirements

To earn a baccalaureate degree, all students must complete successfully, in addition to any other requirements, the University of Montana General Education Requirements. Please refer to the General Education Requirements page (p. 39) for more information.

Additional requirements for graduation can be found on the Degree/Certificate Requirements for Graduation page (p. 36).

Unless otherwise noted in individual program requirements, a minimum grade point average of 2.00 in all work attempted at the University of Montana-Missoula is required for graduation. Please see the Academic Policies and Procedures page (p. 25) for information on how your GPA is calculated.

Courses taken to satisfy the requirements of a major, minor, or certificate program must be completed with a grade of C- or better unless a higher grade is noted in the program requirements.

## Minor - Political Science Education

### Course Requirements

| Code                                                                       | Title                                              | Hours |
|----------------------------------------------------------------------------|----------------------------------------------------|-------|
| <b>Lower-Division Required Courses</b>                                     |                                                    |       |
| Complete all of the following courses:                                     |                                                    |       |
| PSCI 210S                                                                  | Intro to American Government                       | 3     |
| PSCI 220S                                                                  | Intro to Comparative Government                    | 3     |
| PSCI 230X                                                                  | Intro to International Relations                   | 3     |
| PSCI 250E                                                                  | Intro to Political Theory                          | 3     |
| <b>Required Upper Division Field Courses</b>                               |                                                    |       |
| Complete one course in three of the five fields listed below. <sup>1</sup> |                                                    | 9     |
| <b>Public Administration and Public Policy</b>                             |                                                    |       |
| NPAD 466                                                                   | Practical Applications in Nonprofit Administration |       |
| NPAD 467                                                                   | Advanced Nonprofit Admin                           |       |
| PSCI 335                                                                   | American Foreign Policy                            |       |
| PSCI 344                                                                   | State and Local Government                         |       |
| PSCI 348                                                                   | US Multicultural Politics                          |       |
| PSCI 349                                                                   | Montana Government and Politics                    |       |
| PSCI 360                                                                   | Experimental Offering: Public Administration       |       |
| PSCI 361                                                                   | Public Administration                              |       |
| PSCI 365                                                                   | Public Policy Issues and Analysis                  |       |
| PSCI 377                                                                   | Global Health Issues                               |       |
| PSCI 431                                                                   | Politics of Global Migration                       |       |
| PSCI 448                                                                   | Health Care Policy                                 |       |
| PSCI 460                                                                   | Experimental Offering: Public Administration       |       |

|                                |                                                                      |
|--------------------------------|----------------------------------------------------------------------|
| PSCI 463                       | Development Administration                                           |
| PSCI 469                       | Ethics and Public Policy                                             |
| PSCI 524                       | Management and Policy Skills (enrollment with consent of instructor) |
| <b>Political Theory</b>        |                                                                      |
| HONR 394                       | Interdisciplinary Colloquium (Democracy)                             |
| PSCI 350                       | Experimental Offering: Political Theory                              |
| PSCI 352Y                      | American Political Thought                                           |
| PSCI 354                       | Contemporary Issues in Political Theory                              |
| PSCI 450                       | Experimental Offering: Political Theory                              |
| PSCI 452                       | Utopianism and its Critics                                           |
| PSCI 453                       | Modern Political Theory                                              |
| <b>Comparative Government</b>  |                                                                      |
| NASX 475                       | Tribal Sovereignty                                                   |
| PSCI 311                       | Revolution & Reform in Modern China                                  |
| PSCI 320                       | Experimental Offering: Comparative Politics                          |
| PSCI 322                       | Politics of Europe                                                   |
| PSCI 325                       | Politics of Latin America                                            |
| PSCI 326                       | Politics of Africa                                                   |
| PSCI 327                       | Politics of Mexico                                                   |
| PSCI 328                       | Politics of China                                                    |
| PSCI 377                       | Global Health Issues                                                 |
| PSCI 381                       | State Formation                                                      |
| PSCI 420                       | Experimental Offering: Comparative Politics                          |
| PSCI 443                       | Politics of Social Movements                                         |
| PSCI 481                       | Origins of Democracy and Authoritarianism                            |
| <b>International Relations</b> |                                                                      |
| PSCI 330                       | Experimental Offering: International Relations                       |
| PSCI 332                       | Global Environmental Politics                                        |
| PSCI 334                       | International Security                                               |
| PSCI 335                       | American Foreign Policy                                              |
| PSCI 336                       | European Union                                                       |
| PSCI 337                       | Model United Nations                                                 |
| PSCI 430                       | Experimental Offering: International Relations                       |
| PSCI 431                       | Politics of Global Migration                                         |
| PSCI 433                       | International Law & Organization                                     |
| PSCI 463                       | Development Administration                                           |
| PSCI 482                       | Politics of the World Economy                                        |
| <b>American Politics</b>       |                                                                      |
| HONR 394                       | Interdisciplinary Colloquium (Democracy)                             |
| PSCI 335                       | American Foreign Policy                                              |
| PSCI 340                       | Experimental Offering: American Government                           |
| PSCI 342                       | Media, Public Opinion, Polling                                       |
| PSCI 344                       | State and Local Government                                           |
| PSCI 345                       | American Political System                                            |
| PSCI 348                       | US Multicultural Politics                                            |
| PSCI 349                       | Montana Government and Politics                                      |
| PSCI 352Y                      | American Political Thought                                           |
| PSCI 365                       | Public Policy Issues and Analysis                                    |
| PSCI 370                       | Courts and Judicial Politics                                         |

|                                                |                                                       |           |
|------------------------------------------------|-------------------------------------------------------|-----------|
| PSCI 440                                       | Experimental Offering: American Government            |           |
| PSCI 443                                       | Politics of Social Movements                          |           |
| PSCI 444                                       | American Political Participation                      |           |
| PSCI 445                                       | Political Psychology                                  |           |
| PSCI 448                                       | Health Care Policy                                    |           |
| PSCI 471                                       | American Constitutional Law                           |           |
| PSCI 474                                       | Civil Rights                                          |           |
| <b>Political Science Education Requirement</b> |                                                       |           |
| Complete the following course:                 |                                                       |           |
| EDU 497                                        | Teaching and Assessing (Methods: 5-12 Social Studies) | 4         |
| <b>Total Hours</b>                             |                                                       | <b>25</b> |

<sup>1</sup> PSCI 480 may apply to any of the categories with the consent of the instructor. Courses may only count toward one category of requirements.

## Secondary Teaching Licensure

For endorsement to teach this subject, a student also must gain admission to the Teacher Education Program and meet all the requirements for secondary teaching licensure (p. 151). For more information, see the Teaching and Learning Department webpage (<https://www.umt.edu/education/departments/currinst/default.php>).

# Migration Studies Certificate

## General Certificate Requirements

Additional requirements for graduation can be found on the Degree/Certificate Requirements for Graduation page (p. 36).

Unless otherwise noted in individual program requirements, a minimum grade point average of 2.00 in all work attempted at the University of Montana-Missoula is required for graduation. Please see the Academic Policies and Procedures page (p. 25) for information on how your GPA is calculated.

Courses taken to satisfy the requirements of a major, minor, or certificate program must be completed with a grade of C- or better unless a higher grade is noted in the program requirements.

## Post-Secondary Certificate - Migration Studies

### Course Requirements

| Code                                         | Title                        | Hours |
|----------------------------------------------|------------------------------|-------|
| <b>Core Courses</b>                          |                              |       |
| Complete 6 credits of the following courses: |                              | 6     |
| ANTY 122S                                    | Race and Minorities          |       |
| COMX 415                                     | Intercultural Communication  |       |
| HSTR 230H                                    | Colonial Latin America       |       |
| PSCI 398                                     | Internship                   |       |
| PSCI 431                                     | Politics of Global Migration |       |
| <b>Electives</b>                             |                              |       |
| Complete 6 credits of the following courses: |                              | 6     |

|                                                     |                                                                  |
|-----------------------------------------------------|------------------------------------------------------------------|
| <b>Social, Political, and Economic Determinants</b> |                                                                  |
| ANTY 104                                            | Ancient Migrations                                               |
| ECNS 217                                            | Issues in Economic Development                                   |
| HSTA 342H                                           | African American History to 1865                                 |
| HSTA 343H                                           | African American History Since 1865                              |
| HSTR 335                                            | Latin America: Workers & Labor                                   |
| HSTR 437                                            | US-Latin America Relations                                       |
| PSCI 377                                            | Global Health Issues                                             |
| SOCI 443                                            | Sociology of Poverty                                             |
| <b>Regional Contexts</b>                            |                                                                  |
| ANTY 353                                            | PaleoIndian Archaeology                                          |
| ENST 427                                            | Social Issues: The Mekong Delta                                  |
| GPHY 323S                                           | Economic Geography of Rural Areas                                |
| GPHY 468 & GPHY 469                                 | Community & Regional Analysis and Planning & Analysis Laboratory |
| GRMN 317L                                           | Introduction to Multicultural Literature in Contemporary Germany |
| HSTA 101H                                           | American History I                                               |
| HSTA 102H                                           | American History II                                              |
| HSTR 231H                                           | Modern Latin America                                             |
| HSTR 326                                            | Contemporary Europe                                              |
| PSCI 322                                            | Politics of Europe                                               |
| PSCI 325                                            | Politics of Latin America                                        |
| PSCI 327                                            | Politics of Mexico                                               |
| PSCI 336                                            | European Union                                                   |
| SOCI 346                                            | Rural Sociology                                                  |
| <b>Environmental Contributors</b>                   |                                                                  |
| ECNS 445                                            | Introduction to Environmental Economics & Climate Change         |
| ENST 487                                            | Globalization, Justice & Environment                             |
| GPHY 421                                            | Sustainable Cities                                               |
| NRSM 326                                            | Climate and Society                                              |
| NRSM 349E                                           | Climate Change Ethics and Policy                                 |
| NRSM 475                                            | Environment & International Development                          |
| <b>Bridging Gaps and Divisions</b>                  |                                                                  |
| COMX 412                                            | Communication and Conflict                                       |
| COMX 424                                            | Risk, Crisis, and Communication                                  |
| GBLD 110                                            | Global Challenges and Leadership                                 |
| PSCI 348                                            | US Multicultural Politics                                        |
| PSCI 443                                            | Politics of Social Movements                                     |
| S W 464                                             | Cultural Humility in Social Work Practice: Valuing Diversity     |
| S W 465                                             | Social Work Global Context                                       |
| <b>Total Hours</b>                                  | <b>12</b>                                                        |

## Psychology

Psychology is the science of the behavior of humans and other animals. The psychologist, using scientific methods, seeks to understand the causes and purposes of behavior. Psychologists pursue their research and its application in academia, business, government, health, military and social service. The department offers training that leads to the

Bachelor of Arts, Master of Arts, Specialist in School Psychology (SSP), and Doctor of Philosophy degrees.

- Psychology B.A. (p. 269)
- Psychology B.A. - Psychology Education (p. 270)
- Psychology Minor (p. 272)
- Psychology Education Minor (p. 272)
- Sport Psychology Minor (p. 273)
- Human and Family Development Minor (p. 273)

## Psychology B.A.

### General Degree Requirements

To earn a baccalaureate degree, all students must complete successfully, in addition to any other requirements, the University of Montana General Education Requirements. Please refer to the General Education Requirements page (p. 39) for more information.

Additional requirements for graduation can be found on the Degree/Certificate Requirements for Graduation page (p. 36).

Unless otherwise noted in individual program requirements, a minimum grade point average of 2.00 in all work attempted at the University of Montana-Missoula is required for graduation. Please see the Academic Policies and Procedures page (p. 25) for information on how your GPA is calculated.

Courses taken to satisfy the requirements of a major, minor, or certificate program must be completed with a grade of C- or better unless a higher grade is noted in the program requirements.

### Bachelor of Arts - Psychology

- Students must complete a minimum of 60 credits in non-psychology courses.
- PSYX 290, PSYX 292, and PSYX 298 are limited to 6 credit hours.
- PSYX 390, PSYX 392 and PSYX 398 are limited to 3 credit hours.
- PSYX 330, PSYX 340, PSYX 360, and PSYX 385 may only count towards one category within the Psychology major.

### Course Requirements

| Code                                    | Title                                                  | Hours |
|-----------------------------------------|--------------------------------------------------------|-------|
| <b>Lower-Division Core Courses</b>      |                                                        |       |
| Complete all of the following courses:  |                                                        |       |
| PSYX 100S                               | Intro to Psychology                                    | 3     |
| PSYX 120                                | Introduction to Psychological Research Methods         | 3     |
| PSYX 222<br>or STAT 216                 | Psychological Statistics<br>Introduction to Statistics | 3     |
| <b>Foundation Courses</b>               |                                                        |       |
| Complete four of the following courses: |                                                        |       |
| PSYX 233                                | Fundamentals of Psychology of Aging                    |       |
| PSYX 330                                | Child Development                                      |       |
| PSYX 340                                | Psychological Disorders                                |       |
| PSYX 360                                | Social Psychology                                      |       |
| PSYX 385                                | Psychology of Personality                              |       |

### Fundamentals Courses

|                                        |                                        |   |
|----------------------------------------|----------------------------------------|---|
| Complete two of the following courses: |                                        | 6 |
| PSYX 250N                              | Fundamentals of Biological Psychology  |   |
| PSYX 270                               | Fundamentals of Psychology of Learning |   |
| PSYX 280                               | Fundamentals of Memory and Cognition   |   |

### Upper-Division Electives <sup>1</sup>

|                                         |                                                                                 |    |
|-----------------------------------------|---------------------------------------------------------------------------------|----|
| Complete five of the following courses: |                                                                                 | 15 |
| PSYX 302                                | Sexual Orientation and Gender Diversity in Psychology: LGBTQ+ People and Health |    |
| PSYX 320                                | Advanced Psychological Research Methods                                         |    |
| PSYX 330                                | Child Development (may only count once)                                         |    |
| PSYX 335                                | Psychology of Gender                                                            |    |
| PSYX 340                                | Psychological Disorders (may only count once)                                   |    |
| PSYX 345                                | Child & Adolescent Psych Disorders                                              |    |
| PSYX 348                                | Trauma and Resilience                                                           |    |
| PSYX 352                                | Comparative Psychology                                                          |    |
| PSYX 356                                | Human Neuropsychology                                                           |    |
| PSYX 360                                | Social Psychology (may only count once)                                         |    |
| PSYX 362                                | Multicultural Psychology                                                        |    |
| PSYX 376                                | Evidence-Based Cognitive and Behavioral Treatments                              |    |
| PSYX 378                                | Intro to Clinical Psychology                                                    |    |
| PSYX 382                                | Forensic Psychology                                                             |    |
| PSYX 383                                | Health Psychology                                                               |    |
| PSYX 385                                | Psychology of Personality (may only count once)                                 |    |
| PSYX 390                                | Advanced Supervised Research                                                    |    |
| PSYX 391                                | Special Topics                                                                  |    |
| PSYX 400                                | History & System in Psychology                                                  |    |
| PSYX 430                                | Counseling Theories in Context                                                  |    |
| PSYX 491                                | Special Topics                                                                  |    |
| PSYX 494                                | Seminar/Workshop                                                                |    |
| S W 423                                 | Addiction Studies                                                               |    |

### Math Requirement

|                                        |                                    |     |
|----------------------------------------|------------------------------------|-----|
| Complete one of the following courses: |                                    | 3-4 |
| M 115                                  | Probability and Linear Mathematics |     |
| M 121                                  | College Algebra                    |     |
| M 151                                  | Precalculus                        |     |
| M 162                                  | Applied Calculus                   |     |
| M 171                                  | Calculus I                         |     |

**Total Hours** **45-46**

<sup>1</sup> May not include PSYX 392, PSYX 398, or PSYX 499.

## Four Year

**Consider these add-ons to the Psychology major:** Research, Internship, Service learning Minors, and/or another major

| Course          | Title                            | Hours |
|-----------------|----------------------------------|-------|
| <b>Freshman</b> |                                  |       |
| <b>Autumn</b>   |                                  |       |
| PSYX 100S       | Intro to Psychology <sup>1</sup> | 3     |

|                                                                                                                                                                                                                         |                                                |     |
|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|------------------------------------------------|-----|
| M 115                                                                                                                                                                                                                   | Probability and Linear Mathematics             | 4   |
| WRIT 101                                                                                                                                                                                                                | College Writing I                              | 4   |
| Foreign Language                                                                                                                                                                                                        |                                                | 4   |
| COLS 101                                                                                                                                                                                                                | First Year Seminar                             | 2   |
| This is a lot of credits for a first semester, which is why the conversation with your professional academic advisor is important. You will discuss the best plan for YOU so that you are learning and not overwhelmed. |                                                |     |
| Hours                                                                                                                                                                                                                   |                                                | 17  |
| Spring                                                                                                                                                                                                                  |                                                |     |
| PSYX 120                                                                                                                                                                                                                | Introduction to Psychological Research Methods | 3   |
| General Education <sup>1</sup>                                                                                                                                                                                          |                                                | 9   |
| Foreign Language                                                                                                                                                                                                        |                                                | 4   |
| Hours                                                                                                                                                                                                                   |                                                | 16  |
| Sophomore                                                                                                                                                                                                               |                                                |     |
| Autumn                                                                                                                                                                                                                  |                                                |     |
| PSYX 222                                                                                                                                                                                                                | Psychological Statistics                       | 3   |
| PSYX fundamental or foundational courses <sup>1</sup>                                                                                                                                                                   |                                                | 6   |
| Intermediate Writing or General Education <sup>1</sup>                                                                                                                                                                  |                                                | 3   |
| General Education <sup>1</sup>                                                                                                                                                                                          |                                                | 3   |
| Hours                                                                                                                                                                                                                   |                                                | 15  |
| Spring                                                                                                                                                                                                                  |                                                |     |
| PSYX fundamental or foundational course <sup>1</sup>                                                                                                                                                                    |                                                | 6   |
| General Education <sup>1</sup>                                                                                                                                                                                          |                                                | 9   |
| Hours                                                                                                                                                                                                                   |                                                | 15  |
| Junior                                                                                                                                                                                                                  |                                                |     |
| Autumn                                                                                                                                                                                                                  |                                                |     |
| PSYX fundamental or foundational course <sup>1</sup>                                                                                                                                                                    |                                                | 6   |
| Advanced Writing course <sup>2</sup>                                                                                                                                                                                    |                                                | 3   |
| General Education <sup>1</sup>                                                                                                                                                                                          |                                                | 6   |
| Hours                                                                                                                                                                                                                   |                                                | 15  |
| Spring                                                                                                                                                                                                                  |                                                |     |
| Upper Division PSYX elective                                                                                                                                                                                            |                                                | 6   |
| General Education <sup>1</sup>                                                                                                                                                                                          |                                                | 3   |
| Elective                                                                                                                                                                                                                |                                                | 6   |
| Hours                                                                                                                                                                                                                   |                                                | 15  |
| Senior                                                                                                                                                                                                                  |                                                |     |
| Autumn                                                                                                                                                                                                                  |                                                |     |
| Upper Division PSYX elective                                                                                                                                                                                            |                                                | 6   |
| Upper Division elective                                                                                                                                                                                                 |                                                | 6   |
| Elective                                                                                                                                                                                                                |                                                | 3   |
| Hours                                                                                                                                                                                                                   |                                                | 15  |
| Spring                                                                                                                                                                                                                  |                                                |     |
| Upper Division PSYX elective                                                                                                                                                                                            |                                                | 3   |
| Upper Division elective                                                                                                                                                                                                 |                                                | 12  |
| Hours                                                                                                                                                                                                                   |                                                | 15  |
| Total Hours                                                                                                                                                                                                             |                                                | 123 |

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Three Year

| Course                         | Title                                          | Hours |
|--------------------------------|------------------------------------------------|-------|
| First Year                     |                                                |       |
| Autumn                         |                                                |       |
| PSYX 100S                      | Intro to Psychology                            | 3     |
| M 115                          | Probability and Linear Mathematics (or higher) | 4     |
| WRIT 101                       | College Writing I                              | 4     |
| General Education Requirements |                                                | 6     |
| COLS 194                       | Seminar/Workshop                               | 1-6   |
| Hours                          |                                                | 18-23 |
| Spring                         |                                                |       |
| PSYX 222                       | Psychological Statistics                       | 3     |

|                                         |                                                                   |         |
|-----------------------------------------|-------------------------------------------------------------------|---------|
| PSYX 120                                | Introduction to Psychological Research Methods                    | 3       |
| Intermediate Writing Course             |                                                                   | 3       |
| General Education Requirements          |                                                                   | 6       |
| PSYX fundamental course                 |                                                                   | 3       |
| Hours                                   |                                                                   | 18      |
| Summer                                  |                                                                   |         |
| Foreign Language 101                    |                                                                   | 4       |
| Foreign Language 102                    |                                                                   | 4       |
| Hours                                   |                                                                   | 8       |
| Second Year                             |                                                                   |         |
| Autumn                                  |                                                                   |         |
| PSYX fundamental or foundational course |                                                                   | 9       |
| General Education Requirement           |                                                                   | 9       |
| Hours                                   |                                                                   | 18      |
| Spring                                  |                                                                   |         |
| PSYX fundamental or foundational course |                                                                   | 6       |
| Upper Division elective                 |                                                                   | 3       |
| General Education Requirement           |                                                                   | 6       |
| Elective                                |                                                                   | 3       |
| Hours                                   |                                                                   | 18      |
| Summer                                  |                                                                   |         |
| Upper Division PSYX elective            |                                                                   | 3       |
| Elective                                |                                                                   | 3       |
| Hours                                   |                                                                   | 6       |
| Third Year                              |                                                                   |         |
| Autumn                                  |                                                                   |         |
| Upper Division PSYX elective            |                                                                   | 6       |
| PSYX 320                                | Advanced Psychological Research Methods (Advanced Writing Course) | 3       |
| Upper Division elective                 |                                                                   | 6       |
| Elective                                |                                                                   | 3       |
| Hours                                   |                                                                   | 18      |
| Spring                                  |                                                                   |         |
| Upper Division PSYX elective            |                                                                   | 6       |
| Upper Division elective                 |                                                                   | 6       |
| PSYX 430                                | Counseling Theories in Context (if PSYX 320 not completed)        | 3       |
| Elective                                |                                                                   | 3       |
| Hours                                   |                                                                   | 18      |
| Total Hours                             |                                                                   | 122-127 |

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<sup>1</sup> Note that you will satisfy the General Education Requirement (GER) for Social Sciences with PSYX 100S. You can satisfy three credits of the Natural Sciences GER with PSYX 250N, which is an option for a fundamental course

<sup>2</sup> Advanced Writing courses include: PSYX 320 and PSYX 400

Psychology B.A. - Psychology Education

- This concentration contains additional course requirements designed to meet state standards. Those interested in teaching in K-12 schools must complete the education/teaching concentration of a major in a teaching content area plus the Teacher Education Program through the Department of Teaching and Learning. Additional teaching areas can be added through completion of the education/teaching concentration of a major or education/teaching minor in that content area.



- Secondary Education Licensure Program (<https://www.umt.edu/education/departments/teaching-and-learning/tep/default.php>)
- Licensure Degree Requirements (p. 151)
- To complete this concentration, you need to contact the Teaching and Learning Department. Approvals for this concentration must come from the Teaching and Learning Department.
- This major and concentration do not qualify as a single-field endorsement. The demand for teaching in this field is limited. The required second endorsement (either a teaching major or a teaching minor) should be in a field in high demand.

## General Degree Requirements

To earn a baccalaureate degree, all students must complete successfully, in addition to any other requirements, the University of Montana General Education Requirements. Please refer to the General Education Requirements page (p. 39) for more information.

Additional requirements for graduation can be found on the Degree/Certificate Requirements for Graduation page (p. 36).

Unless otherwise noted in individual program requirements, a minimum grade point average of 2.00 in all work attempted at the University of Montana-Missoula is required for graduation. Please see the Academic Policies and Procedures page (p. 25) for information on how your GPA is calculated.

Courses taken to satisfy the requirements of a major, minor, or certificate program must be completed with a grade of C- or better unless a higher grade is noted in the program requirements.

## Bachelor of Arts - Psychology; Psychology Education Concentration

- Students must complete a minimum of 60 credits in non-psychology courses.
- PSYX 290, PSYX 292, and PSYX 298 are limited to 6 credit hours.
- PSYX 390, PSYX 392 and PSYX 398 are limited to 3 credit hours.
- PSYX 330, PSYX 340, PSYX 360, and PSYX 385 may only count towards one category within the Psychology major.

### Course Requirements

| Code                                    | Title                                                  | Hours |
|-----------------------------------------|--------------------------------------------------------|-------|
| <b>Lower-Division Core Courses</b>      |                                                        |       |
| Complete all of the following courses:  |                                                        |       |
| PSYX 100S                               | Intro to Psychology                                    | 3     |
| PSYX 120                                | Introduction to Psychological Research Methods         | 3     |
| PSYX 222<br>or STAT 216                 | Psychological Statistics<br>Introduction to Statistics | 3     |
| <b>Foundation Courses</b>               |                                                        |       |
| Complete four of the following courses: |                                                        |       |
| PSYX 233                                | Fundamentals of Psychology of Aging                    | 12    |
| PSYX 330                                | Child Development                                      |       |
| PSYX 340                                | Psychological Disorders                                |       |
| PSYX 360                                | Social Psychology                                      |       |
| PSYX 385                                | Psychology of Personality                              |       |
| <b>Fundamentals Courses</b>             |                                                        |       |

|                                        |                                        |   |
|----------------------------------------|----------------------------------------|---|
| Complete two of the following courses: |                                        | 6 |
| PSYX 250N                              | Fundamentals of Biological Psychology  |   |
| PSYX 270                               | Fundamentals of Psychology of Learning |   |
| PSYX 280                               | Fundamentals of Memory and Cognition   |   |

### Upper-Division Electives <sup>1</sup>

|                                         |                                                                                 |    |
|-----------------------------------------|---------------------------------------------------------------------------------|----|
| Complete five of the following courses: |                                                                                 | 15 |
| PSYX 302                                | Sexual Orientation and Gender Diversity in Psychology: LGBTQ+ People and Health |    |
| PSYX 320                                | Advanced Psychological Research Methods                                         |    |
| PSYX 330                                | Child Development (may only count once)                                         |    |
| PSYX 335                                | Psychology of Gender                                                            |    |
| PSYX 340                                | Psychological Disorders (may only count once)                                   |    |
| PSYX 345                                | Child & Adolescent Psych Disorders                                              |    |
| PSYX 348                                | Trauma and Resilience                                                           |    |
| PSYX 352                                | Comparative Psychology                                                          |    |
| PSYX 356                                | Human Neuropsychology                                                           |    |
| PSYX 360                                | Social Psychology (may only count once)                                         |    |
| PSYX 362                                | Multicultural Psychology                                                        |    |
| PSYX 376                                | Evidence-Based Treatments                                                       |    |
| PSYX 378                                | Intro to Clinical Psychology                                                    |    |
| PSYX 382                                | Forensic Psychology                                                             |    |
| PSYX 383                                | Health Psychology                                                               |    |
| PSYX 385                                | Psychology of Personality (may only count once)                                 |    |
| PSYX 390                                | Advanced Supervised Research                                                    |    |
| PSYX 391                                | Special Topics                                                                  |    |
| PSYX 400                                | History & System in Psychology                                                  |    |
| PSYX 430                                | Counseling Theories in Context                                                  |    |
| PSYX 491                                | Special Topics                                                                  |    |
| PSYX 494                                | Seminar/Workshop                                                                |    |
| S W 423                                 | Addiction Studies                                                               |    |

### Math Requirement

|                                        |                                    |     |
|----------------------------------------|------------------------------------|-----|
| Complete one of the following courses: |                                    | 3-4 |
| M 115                                  | Probability and Linear Mathematics |     |
| M 121                                  | College Algebra                    |     |
| M 151                                  | Precalculus                        |     |
| M 162                                  | Applied Calculus                   |     |
| M 171                                  | Calculus I                         |     |

### Psychology Education Concentration Requirement

|                                |                                                       |   |
|--------------------------------|-------------------------------------------------------|---|
| Complete the following course: |                                                       |   |
| EDU 497                        | Teaching and Assessing (Methods: 5-12 Social Studies) | 3 |

|                    |              |
|--------------------|--------------|
| <b>Total Hours</b> | <b>48-49</b> |
|--------------------|--------------|

<sup>1</sup> May not include PSYX 392, PSYX 398, or PSYX 499.

## Secondary Teaching Licensure

For endorsement to teach this subject, a student also must gain admission to the Teacher Education Program and meet all the requirements for secondary teaching licensure (p. 151). For more

information, see the Teaching and Learning Department webpage (<https://www.umt.edu/education/departments/currinst/default.php>).

## Psychology Minor

### General Degree Requirements

To earn a baccalaureate degree, all students must complete successfully, in addition to any other requirements, the University of Montana General Education Requirements. Please refer to the General Education Requirements page (p. 39) for more information.

Additional requirements for graduation can be found on the Degree/Certificate Requirements for Graduation page (p. 36).

Unless otherwise noted in individual program requirements, a minimum grade point average of 2.00 in all work attempted at the University of Montana-Missoula is required for graduation. Please see the Academic Policies and Procedures page (p. 25) for information on how your GPA is calculated.

Courses taken to satisfy the requirements of a major, minor, or certificate program must be completed with a grade of C- or better unless a higher grade is noted in the program requirements.

### Minor - Psychology

#### Course Requirements

| Code                                                              | Title                                              | Hours     |
|-------------------------------------------------------------------|----------------------------------------------------|-----------|
| <b>Lower-Division Core Requirements</b>                           |                                                    |           |
| Complete all of the following courses:                            |                                                    |           |
| PSYX 100S                                                         | Intro to Psychology                                | 3         |
| PSYX 120                                                          | Introduction to Psychological Research Methods     | 3         |
| <b>Electives</b>                                                  |                                                    |           |
| Complete one of the following courses:                            |                                                    | 3         |
| PSYX 330                                                          | Child Development                                  |           |
| PSYX 360                                                          | Social Psychology                                  |           |
| PSYX 385                                                          | Psychology of Personality                          |           |
| Complete one of the following courses:                            |                                                    | 3         |
| PSYX 340                                                          | Psychological Disorders                            |           |
| Complete two of the following courses:                            |                                                    | 6         |
| PSYX 250N                                                         | Fundamentals of Biological Psychology              |           |
| PSYX 270                                                          | Fundamentals of Psychology of Learning             |           |
| PSYX 280                                                          | Fundamentals of Memory and Cognition               |           |
| PSYX 352                                                          | Comparative Psychology                             |           |
| PSYX 356                                                          | Human Neuropsychology                              |           |
| PSYX 345                                                          | Child & Adolescent Psych Disorders                 |           |
| PSYX 376                                                          | Evidence-Based Cognitive and Behavioral Treatments |           |
| PSYX 378                                                          | Intro to Clinical Psychology                       |           |
| Complete an additional Psychology elective to achieve 21 credits. |                                                    | 3         |
| <b>Total Hours</b>                                                |                                                    | <b>21</b> |

## Psychology Education Minor

- This minor contains additional course requirements designed to meet state standards. Those interested in teaching in K-12 schools must complete the education/teaching concentration of a major in a teaching content area plus the Teacher Education Program through the Department of Teaching and Learning. Additional teaching areas can be added through completion of the education/teaching concentration of a major or education/teaching minor in that content area.
  - Secondary Education Licensure Program (<https://www.umt.edu/education/departments/teaching-and-learning/tep/>)
  - Licensure Degree Requirements (p. 151)
- To complete this minor, you need to contact the Teaching and Learning Department. Approvals for this concentration must come from the Teaching and Learning Department.
- This minor does not qualify as a single-field endorsement. The demand for teaching in this field is limited. The required second endorsement (either a teaching major or a teaching minor) should be in a field in high demand.

### General Degree Requirements

To earn a baccalaureate degree, all students must complete successfully, in addition to any other requirements, the University of Montana General Education Requirements. Please refer to the General Education Requirements page (p. 39) for more information.

Additional requirements for graduation can be found on the Degree/Certificate Requirements for Graduation page (p. 36).

Unless otherwise noted in individual program requirements, a minimum grade point average of 2.00 in all work attempted at the University of Montana-Missoula is required for graduation. Please see the Academic Policies and Procedures page (p. 25) for information on how your GPA is calculated.

Courses taken to satisfy the requirements of a major, minor, or certificate program must be completed with a grade of C- or better unless a higher grade is noted in the program requirements.

### Minor - Psychology Education

#### Course Requirements

| Code                                    | Title                                          | Hours |
|-----------------------------------------|------------------------------------------------|-------|
| <b>Lower-Division Core Requirements</b> |                                                |       |
| Complete all of the following courses:  |                                                |       |
| PSYX 100S                               | Intro to Psychology                            | 3     |
| PSYX 120                                | Introduction to Psychological Research Methods | 3     |
| <b>Electives</b>                        |                                                |       |
| Complete one of the following courses:  |                                                | 3     |
| PSYX 330                                | Child Development                              |       |
| PSYX 360                                | Social Psychology                              |       |
| PSYX 385                                | Psychology of Personality                      |       |
| Complete one of the following courses:  |                                                | 3     |
| PSYX 340                                | Psychological Disorders                        |       |
| Complete two of the following courses:  |                                                | 6     |
| PSYX 250N                               | Fundamentals of Biological Psychology          |       |
| PSYX 270                                | Fundamentals of Psychology of Learning         |       |

|                                             |                                                       |           |
|---------------------------------------------|-------------------------------------------------------|-----------|
| PSYX 280                                    | Fundamentals of Memory and Cognition                  |           |
| PSYX 352                                    | Comparative Psychology                                |           |
| PSYX 356                                    | Human Neuropsychology                                 |           |
| PSYX 345                                    | Child & Adolescent Psych Disorders                    |           |
| PSYX 376                                    | Evidence-Based Treatments                             |           |
| PSYX 378                                    | Intro to Clinical Psychology                          |           |
| Complete an additional Psychology elective. |                                                       | 3         |
| <b>Psychology Education Requirement</b>     |                                                       |           |
| Complete the following course:              |                                                       |           |
| EDU 497                                     | Teaching and Assessing (Methods: 5-12 Social Studies) | 3         |
| <b>Total Hours</b>                          |                                                       | <b>24</b> |

## Secondary Teaching Licensure

For endorsement to teach this subject, a student also must gain admission to the Teacher Education Program and meet all the requirements for secondary teaching licensure (p. 151). For more information, see the Teaching and Learning Department webpage (<https://www.umt.edu/education/departments/currinst/default.php>).

## Sport Psychology Minor

The Sport Psychology Minor, an interdisciplinary program, is for students in any major course of study who wish augment their education with a further understanding of the mental components and principles of sport and human performance as well as evidence-based techniques for improving functioning in this area. It includes core courses in Psychology and Kinesiology with electives in both of those disciplines in addition to options in Counseling Coaching Health, and Athletic Training.

## General Degree Requirements

To earn a baccalaureate degree, all students must complete successfully, in addition to any other requirements, the University of Montana General Education Requirements. Please refer to the General Education Requirements page (p. 39) for more information.

Additional requirements for graduation can be found on the Degree/Certificate Requirements for Graduation page (p. 36).

Unless otherwise noted in individual program requirements, a minimum grade point average of 2.00 in all work attempted at the University of Montana-Missoula is required for graduation. Please see the Academic Policies and Procedures page (p. 25) for information on how your GPA is calculated.

Courses taken to satisfy the requirements of a major, minor, or certificate program must be completed with a grade of C- or better unless a higher grade is noted in the program requirements.

## Minor - Sport Psychology

- Students must take all core and elective courses from the University of Montana's curriculum, but can receive credit for transfer courses upon approval of IPAT advisor.

## Course Requirements

| Code                                          | Title                                         | Hours     |
|-----------------------------------------------|-----------------------------------------------|-----------|
| <b>Complete all of the following courses:</b> |                                               |           |
| KIN 105                                       | Foundations of Exercise Science               | 3         |
| & KIN 106                                     | and Foundations of Exercise Science Lab       |           |
| KIN 440                                       | Sport Psychology                              | 3         |
| KIN 441                                       | Seminar in Sport Psychology                   | 3         |
| PSYX 100S                                     | Intro to Psychology                           | 3         |
| PSYX 383                                      | Health Psychology                             | 3         |
| <b>Complete one of the following courses:</b> |                                               | <b>3</b>  |
| PSYX 270                                      | Fundamentals of Psychology of Learning        |           |
| PSYX 360                                      | Social Psychology                             |           |
| PSYX 378                                      | Intro to Clinical Psychology                  |           |
| PSYX 385                                      | Psychology of Personality                     |           |
| PSYX 430                                      | Counseling Theories in Context                |           |
| <b>Complete one of the following courses:</b> |                                               | <b>3</b>  |
| KIN 201                                       | Basic Exercise Prescription                   |           |
| COA 405                                       | Advanced Concepts in Coaching                 |           |
| HTH 110                                       | Personal Health and Wellness                  |           |
| AHAT 210                                      | Prevention and Care Athletic Injuries         |           |
| & AHAT 213                                    | and Prevention and Care Athletic Injuries Lab |           |
| <b>Total Hours</b>                            |                                               | <b>21</b> |

## Human and Family Development Minor

### General Degree Requirements

To earn a baccalaureate degree, all students must complete successfully, in addition to any other requirements, the University of Montana General Education Requirements. Please refer to the General Education Requirements page (p. 39) for more information.

Additional requirements for graduation can be found on the Degree/Certificate Requirements for Graduation page (p. 36).

Unless otherwise noted in individual program requirements, a minimum grade point average of 2.00 in all work attempted at the University of Montana-Missoula is required for graduation. Please see the Academic Policies and Procedures page (p. 25) for information on how your GPA is calculated.

Courses taken to satisfy the requirements of a major, minor, or certificate program must be completed with a grade of C- or better unless a higher grade is noted in the program requirements.

## Minor - Human and Family Development

- This minor requires a minimum grade of C in all courses.
- This minor requires a minimum GPA of 2.5.
- To earn the minor in Human and Family Development, the student must:
  - Complete 24 credits, with 11 at the 300-level or above.
  - Complete the 12-credit core curriculum and, with the help of a faculty advisor, develop a written statement of goals and interests along with a planned curriculum that includes 12

additional credits of electives consistent with their stated goals and interests.

- At least 6 credits of electives must be outside of the student's major.

## Course Requirements

| Code                                                                                                                                            | Title                                                      | Hours |
|-------------------------------------------------------------------------------------------------------------------------------------------------|------------------------------------------------------------|-------|
| <b>Core Courses</b>                                                                                                                             |                                                            |       |
| Complete all of the following courses:                                                                                                          |                                                            |       |
| PSYX 330                                                                                                                                        | Child Development (Complete all of the following courses:) | 3     |
| HFD 494                                                                                                                                         | Seminar in Human Development <sup>1</sup>                  | 1     |
| HFD 498                                                                                                                                         | Internship <sup>2</sup>                                    | 2-4   |
| or S W 495                                                                                                                                      | Field Work Practicum                                       |       |
| Complete one of the following courses:                                                                                                          |                                                            | 3     |
| COMX 311                                                                                                                                        | Family Communication                                       |       |
| SOCI 332                                                                                                                                        | Sociology of the Family                                    |       |
| EDEC 410                                                                                                                                        | Families, Communities, Culture                             |       |
| Complete one of the following courses:                                                                                                          |                                                            | 3     |
| COMX 460                                                                                                                                        | Research Methods                                           |       |
| PSYX 120                                                                                                                                        | Introduction to Psychological Research Methods             |       |
| PSYX 320                                                                                                                                        | Advanced Psychological Research Methods                    |       |
| S W 400                                                                                                                                         | Social Work Research                                       |       |
| SOCI 318                                                                                                                                        | Sociological Research Methods                              |       |
| <b>Electives <sup>3</sup></b>                                                                                                                   |                                                            |       |
| Complete 12 credits from any of the courses listed in the subcategories below; at least 6 credits must be taken outside of the student's major. |                                                            | 12    |
| <b>Early Childhood</b>                                                                                                                          |                                                            |       |
| EDEC 408                                                                                                                                        | Early Childhood Principles and Practices                   |       |
| EDEC 410                                                                                                                                        | Families, Communities, Culture                             |       |
| EDU 222                                                                                                                                         | Educational Psychology and Child Development               |       |
| <b>CSD 210 Speech &amp; Language Development</b>                                                                                                |                                                            |       |
| EDSP 403                                                                                                                                        | Introduction to Early Childhood Special Education          |       |
| EDSP 462                                                                                                                                        | Special Education Law, Policy, and Practice                |       |
| EDU 346                                                                                                                                         | Addressing the Needs of Diverse Learners                   |       |
| EDU 491                                                                                                                                         | Special Topics/Experimental Courses                        |       |
| HFD 498                                                                                                                                         | Internship                                                 |       |
| PSYX 290                                                                                                                                        | Supervised Research                                        |       |
| PSYX 378                                                                                                                                        | Intro to Clinical Psychology                               |       |
| <b>School-Age</b>                                                                                                                               |                                                            |       |
| EDU 222                                                                                                                                         | Educational Psychology and Child Development               |       |
| EDU 346                                                                                                                                         | Addressing the Needs of Diverse Learners                   |       |
| PHAR 110N                                                                                                                                       | Use & Abuse of Drugs                                       |       |
| PSYX 376                                                                                                                                        | Principles of Cognitive Behavioral Modification            |       |
| PSYX 378                                                                                                                                        | Intro to Clinical Psychology                               |       |
| PSYX 345                                                                                                                                        | Child & Adolescent Psych Disorders                         |       |
| S W 300                                                                                                                                         | Human Behavior & Social Environment                        |       |

|                    |                                                 |    |
|--------------------|-------------------------------------------------|----|
| S W 420            | Child Abuse/Child Welfare                       |    |
| SOCI 332           | Sociology of the Family                         |    |
| Adolescence        |                                                 |    |
| EDSP 462           | Special Education Law, Policy, and Practice     |    |
| EDU 222            | Educational Psychology and Child Development    |    |
| EDU 346            | Addressing the Needs of Diverse Learners        |    |
| PHAR 110N          | Use & Abuse of Drugs                            |    |
| PSYX 345           | Child & Adolescent Psych Disorders              |    |
| PSYX 376           | Principles of Cognitive Behavioral Modification |    |
| PSYX 378           | Intro to Clinical Psychology                    |    |
| S W 300            | Human Behavior & Social Environment             |    |
| S W 450            | Children and Youth at Risk                      |    |
| Gerontology        |                                                 |    |
| AHHS 325           | Introduction to Gerontology                     |    |
| AHHS 327           | MGS Meeting                                     |    |
| AHHS 430           | Health Aspects of Aging                         |    |
| AHHS 491           | Special Topics                                  |    |
| PSYX 233           | Fundamentals of Psychology of Aging             |    |
| S W 455            | Social Gerontology                              |    |
| S W 475            | Death, Dying and Grief                          |    |
| Family Development |                                                 |    |
| COMX 311           | Family Communication                            |    |
| COMX 414           | Communication in Personal Relationships         |    |
| COMX 485           | Social Interaction and Human Well-Being         |    |
| PSYX 348           | Trauma and Resilience                           |    |
| S W 423            | Addiction Studies                               |    |
| SOCI 332           | Sociology of the Family                         |    |
| Total Hours        |                                                 | 24 |

<sup>1</sup> HFD 494 may be taken for 1 credit.

<sup>2</sup> HFD 498 must be taken for a minimum of 2 credits. Social Work majors may use S W 495 hours to fulfill the HFD 498 requirement.

<sup>3</sup> The list of electives is categorized to assist the student wishing to focus on one of these areas. Students may plan curricula which do not correspond to these categories, but should choose among courses from this list. Occasionally special topics courses are offered. Students may use these as electives with the consent of their advisors. Check with departments regarding variable-credit special topics listings.

## Sociology & Criminology

Sociology is the study of social life, social change, and the social causes and consequences of human behavior" (American Sociological Association 2002:1). Criminology is an area of study within sociology that examines the social causes and consequences of crime.

Sociology & Criminology faculty at the University of Montana conduct research on social issues facing our local community, the Intermountain West region, and beyond. Faculty research addresses theoretical issues such as the causes of interpersonal violence as well as practical matters, such as racial disparities in sentencing and the dynamics of inequality in the American west. Sociology & Criminology faculty use a wide array

of methodological strategies in their research and teaching, including quantitative, qualitative, and mixed-methods data collection techniques.

Students in the department have a choice of three degrees:

1. The general Sociology major provides a broad foundation in sociological theory and research and exposure to courses covering a wide range of topics in the discipline.
2. The Sociology major with a concentration in Inequality and Social Justice offers the same theoretical and research training as the general Sociology major, but allows students to focus their coursework on the causes and consequences of inequality based on class, gender, race/ethnicity, and other identities.
3. The Criminology major allows students to focus their studies on crime and the criminal justice system while still acquiring a solid foundation in the discipline of Sociology.

- Criminology B.A. (p. 275)
- Criminology Minor (p. 277)
- Sociology B.A. (p. 277)
- Sociology B.A. - Inequality and Social Justice (p. 278)
- Sociology B.A. - Sociology Education (p. 280)
- Sociology Education Minor (p. 280)
- Sociology Minor (p. 281)

## Criminology B.A.

Criminology is an area of study within sociology that examines the social causes and consequences of crime. Coursework focuses on the dynamics of victimization and offending, the operation of the criminal justice system, and the impact of income inequality and racial disparities on crime and punishment. Students will graduate from the Criminology program with a deep knowledge of the criminal justice system, a systemic understanding of inequality, and strong data analysis and critical thinking skills. The Bachelor of Arts in Criminology prepares students for professional careers in law enforcement, social services, law, applied research, and academia.

## General Degree Requirements

To earn a baccalaureate degree, all students must complete successfully, in addition to any other requirements, the University of Montana General Education Requirements. Please refer to the General Education Requirements page (p. 39) for more information.

Additional requirements for graduation can be found on the Degree/Certificate Requirements for Graduation page (p. 36).

Unless otherwise noted in individual program requirements, a minimum grade point average of 2.00 in all work attempted at the University of Montana-Missoula is required for graduation. Please see the Academic Policies and Procedures page (p. 25) for information on how your GPA is calculated.

Courses taken to satisfy the requirements of a major, minor, or certificate program must be completed with a grade of C- or better unless a higher grade is noted in the program requirements.

## Online Program Option

This program may be completed in an online format (<https://catalog.umd.edu/online-programs/definitions/>). Students interested in pursuing an online degree or certificate program are strongly encouraged to contact the offering department to discuss specific program and course modalities (<https://catalog.umd.edu/online-programs/definitions/>) and create a plan of study with an academic advisor. The course requirements listed below may not be consistently offered via online delivery.

## Bachelor of Arts - Criminology

- Students can apply only 6 credits of non-Sociology (SOCI) courses to the major.

### Course Requirements

| Code                                                                   | Title                                        | Hours |
|------------------------------------------------------------------------|----------------------------------------------|-------|
| <b>Core Courses</b>                                                    |                                              |       |
| Complete all of the following courses:                                 |                                              |       |
| SOCI 101S                                                              | Introduction to Sociology                    | 3     |
| SOCI 202                                                               | Social Statistics                            | 3     |
| SOCI 211S                                                              | Introduction to Criminology                  | 3     |
| SOCI 221                                                               | Criminal Justice System                      | 3     |
| SOCI 318                                                               | Sociological Research Methods                | 3     |
| SOCI 439                                                               | Advanced Criminological Theory               | 3     |
| <b>Criminology Perspectives</b>                                        |                                              |       |
| Complete one course from each of the following perspective categories: |                                              | 12    |
| <b>Macro and Historical Perspectives</b>                               |                                              |       |
| Complete one of the following courses:                                 |                                              |       |
| SOCI 376                                                               | Comparative Criminology                      |       |
| SOCI 422                                                               | Sociology of Punishment                      |       |
| SOCI 437                                                               | Communities and Crime                        |       |
| SOCI 440                                                               | Deviant and Criminal Behavior                |       |
| <b>Criminal Justice</b>                                                |                                              |       |
| Complete one of the following courses:                                 |                                              |       |
| SOCI 335                                                               | Juvenile Justice System                      |       |
| SOCI 362                                                               | Sociology of Law Enforcement                 |       |
| SOCI 423                                                               | Sociology of Corrections                     |       |
| SOCI 475                                                               | Work, Labor, and the Criminal Justice System |       |
| PSYX 382                                                               | Forensic Psychology                          |       |
| <b>Interpersonal Violence</b>                                          |                                              |       |
| Complete one of the following courses:                                 |                                              |       |
| SOCI 414                                                               | Family Violence                              |       |
| SOCI 425                                                               | Victims and Society                          |       |
| SOCI 450                                                               | Gender, Crime, and Justice                   |       |
| SOCI 469                                                               | Homicide                                     |       |
| <b>Structural Inequality</b>                                           |                                              |       |
| Complete one of the following courses:                                 |                                              |       |
| AAST 250                                                               | Human Rights and Mass Incarceration          |       |
| AAST 360                                                               | White Supremacy - History/Defeat             |       |
| HSTA 365                                                               | Native American History from 1830            |       |
| NASX 231X                                                              | Indigenous World View Perspectives           |       |
| NASX 475                                                               | Tribal Sovereignty                           |       |



|                                               |                                              |           |
|-----------------------------------------------|----------------------------------------------|-----------|
| SOCI 220S                                     | Race, Gender & Class                         |           |
| SOCI 325                                      | Social Stratification                        |           |
| <b>Criminology Electives<sup>1</sup></b>      |                                              |           |
| Complete 12 credits of the following courses: |                                              | 12        |
| PSYX 382                                      | Forensic Psychology                          |           |
| SOCI 220S                                     | Race, Gender & Class                         |           |
| SOCI 225                                      | Careers in Criminology                       |           |
| SOCI 301E                                     | Criminal Justice Ethics                      |           |
| SOCI 325                                      | Social Stratification                        |           |
| SOCI 335                                      | Juvenile Justice System                      |           |
| SOCI 362                                      | Sociology of Law Enforcement                 |           |
| SOCI 376                                      | Comparative Criminology                      |           |
| SOCI 414                                      | Family Violence                              |           |
| SOCI 422                                      | Sociology of Punishment                      |           |
| SOCI 423                                      | Sociology of Corrections                     |           |
| SOCI 425                                      | Victims and Society                          |           |
| SOCI 437                                      | Communities and Crime                        |           |
| SOCI 440                                      | Deviant and Criminal Behavior                |           |
| SOCI 450                                      | Gender, Crime, and Justice                   |           |
| SOCI 469                                      | Homicide                                     |           |
| SOCI 475                                      | Work, Labor, and the Criminal Justice System |           |
| SOCI 498                                      | Service Learning Internship                  |           |
| <b>Total Hours</b>                            |                                              | <b>42</b> |

<sup>1</sup> Courses not used to fulfill the Sociology Perspectives requirement may count toward the elective requirement. Special topics and other Sociology courses may also count toward the elective requirement with the consent of the program director.

## Double Majoring with Sociology

- Students who want to double major in Criminology and Sociology must complete the following additional requirements.
- Special topics and other Sociology courses may also count toward this requirement with the consent of the program director.

| Code                                                                     | Title                         | Hours     |
|--------------------------------------------------------------------------|-------------------------------|-----------|
| <b>Complete the following course:</b>                                    |                               |           |
| SOCI 455                                                                 | Classical Sociological Theory | 3         |
| <b>Complete 7 of the following courses:</b>                              |                               | <b>21</b> |
| SOCI 220S                                                                | Race, Gender & Class          |           |
| SOCI 275S                                                                | Gender and Society            |           |
| SOCI 306                                                                 | Sociology of Work             |           |
| SOCI 332                                                                 | Sociology of the Family       |           |
| SOCI 346                                                                 | Rural Sociology               |           |
| SOCI 443                                                                 | Sociology of Poverty          |           |
| SOCI 470                                                                 | Environmental Sociology       |           |
| <b>The following courses cannot be used to satisfy this requirement:</b> |                               |           |
| SOCI 211S                                                                | Introduction to Criminology   |           |
| SOCI 221                                                                 | Criminal Justice System       |           |
| SOCI 225                                                                 | Careers in Criminology        |           |

|           |                                              |
|-----------|----------------------------------------------|
| SOCI 301E | Criminal Justice Ethics                      |
| SOCI 335  | Juvenile Justice System                      |
| SOCI 362  | Sociology of Law Enforcement                 |
| SOCI 376  | Comparative Criminology                      |
| SOCI 414  | Family Violence                              |
| SOCI 422  | Sociology of Punishment                      |
| SOCI 423  | Sociology of Corrections                     |
| SOCI 425  | Victims and Society                          |
| SOCI 437  | Communities and Crime                        |
| SOCI 439  | Advanced Criminological Theory               |
| SOCI 440  | Deviant and Criminal Behavior                |
| SOCI 450  | Gender, Crime, and Justice                   |
| SOCI 469  | Homicide                                     |
| SOCI 475  | Work, Labor, and the Criminal Justice System |

## Four Year Plan

| Course                                                                                               | Title                                                                                                                                                                                                                                                                                  | Hours     |
|------------------------------------------------------------------------------------------------------|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-----------|
| <b>Freshman</b>                                                                                      |                                                                                                                                                                                                                                                                                        |           |
| <b>Autumn</b>                                                                                        |                                                                                                                                                                                                                                                                                        |           |
| SOCI 101S                                                                                            | Introduction to Sociology                                                                                                                                                                                                                                                              | 3         |
| General Education Requirement                                                                        |                                                                                                                                                                                                                                                                                        | 12        |
| <b>Hours</b>                                                                                         |                                                                                                                                                                                                                                                                                        | <b>15</b> |
| <b>Spring</b>                                                                                        |                                                                                                                                                                                                                                                                                        |           |
| M 115                                                                                                | Probability and Linear Mathematics                                                                                                                                                                                                                                                     | 4         |
| SOCI 221                                                                                             | Criminal Justice System                                                                                                                                                                                                                                                                | 3         |
| General Education Requirement                                                                        |                                                                                                                                                                                                                                                                                        | 9         |
| <b>Hours</b>                                                                                         |                                                                                                                                                                                                                                                                                        | <b>16</b> |
| <b>Sophomore</b>                                                                                     |                                                                                                                                                                                                                                                                                        |           |
| <b>Autumn</b>                                                                                        |                                                                                                                                                                                                                                                                                        |           |
| SOCI 211S                                                                                            | Introduction to Criminology                                                                                                                                                                                                                                                            | 3         |
| SOCI 202                                                                                             | Social Statistics                                                                                                                                                                                                                                                                      | 3         |
| Intermediate Writing Course                                                                          |                                                                                                                                                                                                                                                                                        | 3         |
| Foreign Language 101                                                                                 |                                                                                                                                                                                                                                                                                        | 4         |
| Elective                                                                                             |                                                                                                                                                                                                                                                                                        | 3         |
| <b>Hours</b>                                                                                         |                                                                                                                                                                                                                                                                                        | <b>16</b> |
| <b>Spring</b>                                                                                        |                                                                                                                                                                                                                                                                                        |           |
| AAST 250<br>or AAST 360<br>or HSTA 365<br>or NASX 231X<br>or NASX 475<br>or SOCI 220S<br>or SOCI 325 | Human Rights and Mass Incarceration (Structural Inequality Perspective Course)<br>or White Supremacy - History/Defeat<br>or Native American History from 1830<br>or Indigenous World View Perspectives<br>or Tribal Sovereignty<br>or Race, Gender & Class<br>or Social Stratification | 3         |
| Criminology Elective (200-300)                                                                       |                                                                                                                                                                                                                                                                                        | 3         |
| Foreign Language 102                                                                                 |                                                                                                                                                                                                                                                                                        | 4         |
| General Education Requirement                                                                        |                                                                                                                                                                                                                                                                                        | 3         |
| Elective                                                                                             |                                                                                                                                                                                                                                                                                        | 3         |
| <b>Hours</b>                                                                                         |                                                                                                                                                                                                                                                                                        | <b>16</b> |
| <b>Junior</b>                                                                                        |                                                                                                                                                                                                                                                                                        |           |
| <b>Autumn</b>                                                                                        |                                                                                                                                                                                                                                                                                        |           |
| SOCI 318                                                                                             | Sociological Research Methods                                                                                                                                                                                                                                                          | 3         |

|                                                                      |                                                                                                                                                                                                              |            |
|----------------------------------------------------------------------|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|------------|
| SOCI 376<br>or SOCI 422<br>or SOCI 437<br>or SOCI 440                | Comparative Criminology (Macro and Historical Perspective Course)<br>or Sociology of Punishment<br>or Communities and Crime<br>or Deviant and Criminal Behavior                                              | 3          |
| Criminology Elective (300+)                                          |                                                                                                                                                                                                              | 3          |
| Elective                                                             |                                                                                                                                                                                                              | 6          |
| <b>Hours</b>                                                         |                                                                                                                                                                                                              | <b>15</b>  |
| <b>Spring</b>                                                        |                                                                                                                                                                                                              |            |
| SOCI 414<br>or SOCI 425<br>or SOCI 450<br>or SOCI 469                | Family Violence (Interpersonal Violence Perspective Course)<br>or Victims and Society<br>or Gender, Crime, and Justice<br>or Homicide                                                                        | 3          |
| SOCI 335<br>or SOCI 362<br>or SOCI 423<br>or SOCI 475<br>or PSYX 382 | Juvenile Justice System (Criminal Justice Perspective Course)<br>or Sociology of Law Enforcement<br>or Sociology of Corrections<br>or Work, Labor, and the Criminal Justice System<br>or Forensic Psychology | 3          |
| Advanced Writing Course                                              |                                                                                                                                                                                                              | 3          |
| Elective                                                             |                                                                                                                                                                                                              | 6          |
| <b>Hours</b>                                                         |                                                                                                                                                                                                              | <b>15</b>  |
| <b>Senior</b>                                                        |                                                                                                                                                                                                              |            |
| <b>Autumn</b>                                                        |                                                                                                                                                                                                              |            |
| Criminology Elective (300+)                                          |                                                                                                                                                                                                              | 6          |
| Elective (300+)                                                      |                                                                                                                                                                                                              | 6          |
| Elective                                                             |                                                                                                                                                                                                              | 3          |
| <b>Hours</b>                                                         |                                                                                                                                                                                                              | <b>15</b>  |
| <b>Spring</b>                                                        |                                                                                                                                                                                                              |            |
| SOCI 439                                                             | Advanced Criminological Theory                                                                                                                                                                               | 3          |
| Elective (300+)                                                      |                                                                                                                                                                                                              | 6          |
| Elective                                                             |                                                                                                                                                                                                              | 6          |
| <b>Hours</b>                                                         |                                                                                                                                                                                                              | <b>15</b>  |
| <b>Total Hours</b>                                                   |                                                                                                                                                                                                              | <b>123</b> |

*Last updated Autumn 2024*

## Criminology Minor

### General Degree Requirements

To earn a baccalaureate degree, all students must complete successfully, in addition to any other requirements, the University of Montana General Education Requirements. Please refer to the General Education Requirements page (p. 39) for more information.

Additional requirements for graduation can be found on the Degree/Certificate Requirements for Graduation page (p. 36).

Unless otherwise noted in individual program requirements, a minimum grade point average of 2.00 in all work attempted at the University of Montana-Missoula is required for graduation. Please see the Academic Policies and Procedures page (p. 25) for information on how your GPA is calculated.

Courses taken to satisfy the requirements of a major, minor, or certificate program must be completed with a grade of C- or better unless a higher grade is noted in the program requirements.

### Online Program Option

This program may be completed in an online format (<https://catalog.umd.edu/online-programs/definitions/>). Students interested in pursuing an online degree or certificate program are strongly encouraged to contact the offering department to discuss specific program and

course modalities (<https://catalog.umd.edu/online-programs/definitions/>) and create a plan of study with an academic advisor. The course requirements listed below may not be consistently offered via online delivery.

## Minor - Criminology

- To earn a Minor in Criminology, the student must complete a minimum of 21 credits in Sociology (SOCI) with at least 9 of these credits at the upper-division level (300+).
- Students who want to major in Sociology and minor in Criminology may not count any SOCI courses towards both.

### Course Requirements

| Code                                          | Title                                        | Hours     |
|-----------------------------------------------|----------------------------------------------|-----------|
| <b>Core Courses</b>                           |                                              |           |
| Complete all of the following courses:        |                                              |           |
| SOCI 211S                                     | Introduction to Criminology                  | 3         |
| SOCI 221                                      | Criminal Justice System                      | 3         |
| SOCI 439                                      | Advanced Criminological Theory               | 3         |
| <b>Electives</b>                              |                                              |           |
| Complete 12 credits of the following courses: |                                              | 12        |
| PSYX 382                                      | Forensic Psychology                          |           |
| SOCI 220S                                     | Race, Gender & Class                         |           |
| SOCI 225                                      | Careers in Criminology                       |           |
| SOCI 301E                                     | Criminal Justice Ethics                      |           |
| SOCI 325                                      | Social Stratification                        |           |
| SOCI 335                                      | Juvenile Justice System                      |           |
| SOCI 362                                      | Sociology of Law Enforcement                 |           |
| SOCI 376                                      | Comparative Criminology                      |           |
| SOCI 414                                      | Family Violence                              |           |
| SOCI 422                                      | Sociology of Punishment                      |           |
| SOCI 423                                      | Sociology of Corrections                     |           |
| SOCI 425                                      | Victims and Society                          |           |
| SOCI 437                                      | Communities and Crime                        |           |
| SOCI 440                                      | Deviant and Criminal Behavior                |           |
| SOCI 450                                      | Gender, Crime, and Justice                   |           |
| SOCI 469                                      | Homicide                                     |           |
| SOCI 475                                      | Work, Labor, and the Criminal Justice System |           |
| <b>Total Hours</b>                            |                                              | <b>21</b> |

## Sociology B.A.

Students whose primary interest is in a general sociology major are urged to develop a plan of study with their advisor; they must take 24 credits (6 upper-division) in addition to the core courses and an upper-division writing course. Any sociology course, including courses from any of the two concentrations, may be included in your study plan. The general sociology major prepares students for positions which require a bachelor's degree in one of the social science disciplines, including employment in a variety of government and private-sector agencies, or for graduate study in sociology. It also provides valuable preparation for related fields such as law, social work, education, counseling, politics, and public administration.

# General Degree Requirements

To earn a baccalaureate degree, all students must complete successfully, in addition to any other requirements, the University of Montana General Education Requirements. Please refer to the General Education Requirements page (p. 39) for more information.

Additional requirements for graduation can be found on the Degree/ Certificate Requirements for Graduation page (p. 36).

Unless otherwise noted in individual program requirements, a minimum grade point average of 2.00 in all work attempted at the University of Montana-Missoula is required for graduation. Please see the Academic Policies and Procedures page (p. 25) for information on how your GPA is calculated.

Courses taken to satisfy the requirements of a major, minor, or certificate program must be completed with a grade of C- or better unless a higher grade is noted in the program requirements.

# Bachelor of Arts - Sociology

- Students completing a double major in Sociology and Criminology must complete additional requirements for the Criminology major. See the Criminology major page (p. 275) for more information.

## Course Requirements

| Code                                          | Title                         | Hours     |
|-----------------------------------------------|-------------------------------|-----------|
| <b>Core Courses</b>                           |                               |           |
| Complete all of the following courses:        |                               |           |
| SOCI 101S                                     | Introduction to Sociology     | 3         |
| SOCI 202                                      | Social Statistics             | 3         |
| SOCI 318                                      | Sociological Research Methods | 3         |
| SOCI 455                                      | Classical Sociological Theory | 3         |
| <b>General Sociology Electives</b>            |                               |           |
| Complete 24 credits of the following courses: |                               | 24        |
| Any Sociology (SOCI) course                   |                               |           |
| S W 423                                       | Addiction Studies             |           |
| <b>Total Hours</b>                            |                               | <b>36</b> |

# Four Year Plan

| Course                             | Title                              | Hours     |
|------------------------------------|------------------------------------|-----------|
| <b>Freshman</b>                    |                                    |           |
| <b>Autumn</b>                      |                                    |           |
| SOCI 101S                          | Introduction to Sociology          | 3         |
| WRIT 101                           | College Writing I                  | 4         |
| SOCI Elective (100-200 level)      |                                    | 3         |
| Foreign Language 101               |                                    | 4         |
| General Education Course           |                                    | 3         |
| <b>Hours</b>                       |                                    | <b>17</b> |
| <b>Spring</b>                      |                                    |           |
| M 115                              | Probability and Linear Mathematics | 4         |
| Sociology Elective (100-200 level) |                                    | 6         |
| Foreign Language 102               |                                    | 4         |
| General Education Course           |                                    | 3         |
| <b>Hours</b>                       |                                    | <b>17</b> |

|                               |                               |            |
|-------------------------------|-------------------------------|------------|
| <b>Sophomore</b>              |                               |            |
| <b>Autumn</b>                 |                               |            |
| SOCI 202                      | Social Statistics             | 3          |
| SOCI Elective (200-300 level) |                               | 3          |
| Intermediate Writing Course   |                               | 3          |
| General Education Course      |                               | 6          |
| <b>Hours</b>                  |                               | <b>15</b>  |
| <b>Spring</b>                 |                               |            |
| SOCI 318                      | Sociological Research Methods | 3          |
| Sociology Elective (200-300)  |                               | 3          |
| General Education Course      |                               | 9          |
| <b>Hours</b>                  |                               | <b>15</b>  |
| <b>Junior</b>                 |                               |            |
| <b>Autumn</b>                 |                               |            |
| SOCI Elective (300+)          |                               | 6          |
| Elective (300+)               |                               | 3          |
| General Education Course      |                               | 6          |
| <b>Hours</b>                  |                               | <b>15</b>  |
| <b>Spring</b>                 |                               |            |
| SOCI Advanced Writing Course  |                               | 3          |
| SOCI Elective (300+)          |                               | 3          |
| Elective (300+)               |                               | 6          |
| Elective                      |                               | 3          |
| <b>Hours</b>                  |                               | <b>15</b>  |
| <b>Senior</b>                 |                               |            |
| <b>Autumn</b>                 |                               |            |
| SOCI 455                      | Classical Sociological Theory | 3          |
| Elective (300+)               |                               | 6          |
| Elective                      |                               | 6          |
| <b>Hours</b>                  |                               | <b>15</b>  |
| <b>Spring</b>                 |                               |            |
| Elective (300+)               |                               | 6          |
| Elective                      |                               | 6          |
| Activity                      |                               | 1          |
| <b>Hours</b>                  |                               | <b>13</b>  |
| <b>Total Hours</b>            |                               | <b>122</b> |

Last updated Autumn 2024

# Sociology B.A. - Inequality and Social Justice

Inequality is at the core of most sociological inquires. The concentration in inequality and social justice examines the causes and consequences of inequalities based on class, gender, race/ethnicity, disability, age, and sexual orientation. Social inequalities at the local, national, and global levels are studied, as are the political, legal, and social processes that contribute to or reduce inequalities. Ethical elements of social justice are considered with regard to inequality. A concentration in inequality and social justice prepares students for employment in a variety of government and private-sector agencies, especially in social services, or for graduate school in Sociology. It also provides valuable preparation for related fields such as law, social work, education, counseling, politics, and public administration.

# General Degree Requirements

To earn a baccalaureate degree, all students must complete successfully, in addition to any other requirements, the University of Montana

General Education Requirements. Please refer to the General Education Requirements page (p. 39) for more information.

Additional requirements for graduation can be found on the Degree/Certificate Requirements for Graduation page (p. 36).

Unless otherwise noted in individual program requirements, a minimum grade point average of 2.00 in all work attempted at the University of Montana-Missoula is required for graduation. Please see the Academic Policies and Procedures page (p. 25) for information on how your GPA is calculated.

Courses taken to satisfy the requirements of a major, minor, or certificate program must be completed with a grade of C- or better unless a higher grade is noted in the program requirements.

## Bachelor of Arts - Sociology; Inequality and Social Justice Concentration

- Students completing a double major in Sociology and Criminology must complete additional requirements for the Criminology major. See the Criminology major page (p. 275) for more information.
- Students may apply only 6 credits of non-Sociology courses (SOCI) to the concentration requirements.

### Course Requirements

| Code                                                           | Title                                     | Hours |
|----------------------------------------------------------------|-------------------------------------------|-------|
| <b>Core Courses</b>                                            |                                           |       |
| Complete all of the following courses:                         |                                           |       |
| SOCI 101S                                                      | Introduction to Sociology                 | 3     |
| SOCI 202                                                       | Social Statistics                         | 3     |
| SOCI 318                                                       | Sociological Research Methods             | 3     |
| SOCI 455                                                       | Classical Sociological Theory             | 3     |
| <b>Sociology Electives</b>                                     |                                           |       |
| Complete 9 credits of Sociology (SOCI) courses.                |                                           | 9     |
| <b>Inequality and Social Justice Concentration Requirement</b> |                                           |       |
| Complete one of the following courses:                         |                                           | 3     |
| SOCI 220S                                                      | Race, Gender & Class                      |       |
| SOCI 325                                                       | Social Stratification                     |       |
| <b>Inequality and Social Justice Concentration Electives</b>   |                                           |       |
| Complete 12 credits of the following courses:                  |                                           | 12    |
| ANTY 310                                                       | Human Variation                           |       |
| ANTY 406X                                                      | Contemporary Issues of Indigenous Peoples |       |
| COMX 380                                                       | Gender and Communication                  |       |
| COMX 449                                                       | Rhetoric of Women's Activism              |       |
| ENST 420                                                       | US Environmental Movement                 |       |
| ENST 480                                                       | Food Justice and Sustainability           |       |
| ENST 489S                                                      | Environmental Justice Issues & Solutions  |       |
| PSCI 348                                                       | US Multicultural Politics                 |       |
| PSCI 443                                                       | Politics of Social Movements              |       |
| PSCI 482                                                       | Politics of the World Economy             |       |
| PHL 319E                                                       | Law and Discrimination                    |       |
| PHL 451                                                        | Justice                                   |       |
| PSYX 335                                                       | Psychology of Gender                      |       |
| SOCI 220S                                                      | Race, Gender & Class                      |       |

|                    |                                                           |
|--------------------|-----------------------------------------------------------|
| SOCI 306           | Sociology of Work                                         |
| SOCI 325           | Social Stratification                                     |
| SOCI 443           | Sociology of Poverty                                      |
| SOCI 498           | Service Learning Internship                               |
| S W 463            | Social Justice in Indian Country                          |
| WGSS 263S          | Social and Political Perspectives on Gender and Sexuality |
| WGSS 378           | LGBTQ Studies                                             |
| <b>Total Hours</b> | <b>36</b>                                                 |

## Four Year Plan

| Course                                               | Title                                             | Hours     |
|------------------------------------------------------|---------------------------------------------------|-----------|
| <b>Freshman</b>                                      |                                                   |           |
| <b>Autumn</b>                                        |                                                   |           |
| SOCI 101S                                            | Introduction to Sociology                         | 3         |
| WRIT 101                                             | College Writing I                                 | 4         |
| General Education Course                             |                                                   | 9         |
| <b>Hours</b>                                         |                                                   | <b>16</b> |
| <b>Spring</b>                                        |                                                   |           |
| M 115                                                | Probability and Linear Mathematics                | 4         |
| SOCI Elective (100-200 level)                        |                                                   | 3         |
| General Education Course                             |                                                   | 9         |
| <b>Hours</b>                                         |                                                   | <b>16</b> |
| <b>Sophomore</b>                                     |                                                   |           |
| <b>Autumn</b>                                        |                                                   |           |
| SOCI 202                                             | Social Statistics                                 | 3         |
| SOCI 220S                                            | Race, Gender & Class (or SOCI Elective (100-200)) | 3         |
| Foreign Language 101                                 |                                                   | 4         |
| Intermediate Writing Course                          |                                                   | 3         |
| General Education Course                             |                                                   | 3         |
| <b>Hours</b>                                         |                                                   | <b>16</b> |
| <b>Spring</b>                                        |                                                   |           |
| SOCI Elective (200-300)                              |                                                   | 3         |
| Foreign Language 102                                 |                                                   | 4         |
| Inequality & Social Justice Elective (200-300 level) |                                                   | 3         |
| General Education Course                             |                                                   | 6         |
| <b>Hours</b>                                         |                                                   | <b>16</b> |
| <b>Junior</b>                                        |                                                   |           |
| <b>Autumn</b>                                        |                                                   |           |
| SOCI 318                                             | Sociological Research Methods                     | 3         |
| Inequality & Social Justice Elective (300-400 level) |                                                   | 3         |
| Sociology Elective (300+)                            |                                                   | 3         |
| Elective                                             |                                                   | 6         |
| <b>Hours</b>                                         |                                                   | <b>15</b> |
| <b>Spring</b>                                        |                                                   |           |
| SOCI 455                                             | Classical Sociological Theory                     | 3         |
| Inequality & Social Justice Elective (300+)          |                                                   | 3         |
| Elective (300+)                                      |                                                   | 6         |
| Elective                                             |                                                   | 3         |
| <b>Hours</b>                                         |                                                   | <b>15</b> |
| <b>Senior</b>                                        |                                                   |           |
| <b>Autumn</b>                                        |                                                   |           |
| Inequality & Social Justice elective (300+)          |                                                   |           |
| Internship or Elective (300+)                        |                                                   | 3         |
| Elective (300+)                                      |                                                   | 3         |
| Elective                                             |                                                   | 6         |
| <b>Hours</b>                                         |                                                   | <b>12</b> |

|                             |            |
|-----------------------------|------------|
| <b>Spring</b>               |            |
| Internship or 300+ elective | 3          |
| Elective (300+)             | 6          |
| Elective                    | 3          |
| Activity                    | 1          |
| <b>Hours</b>                | <b>13</b>  |
| <b>Total Hours</b>          | <b>119</b> |

*Last updated Autumn 2024*

## Sociology B.A. - Sociology Education

- This major concentration contains course requirements designed to meet state standards. Those interested in teaching in K-12 schools must complete the education/teaching concentration of a major in a teaching content area plus the Teacher Education Program through the Department of Teaching and Learning. Additional teaching areas can be added through completion of the education/teaching concentration of a major or education/teaching minor in that content area.
  - Secondary Education Licensure Program (<https://www.umt.edu/education/departments/teaching-and-learning/tep/>)
  - Licensure Degree Requirements (p. 151)
- To complete this concentration, you need to contact the Teaching and Learning Department. Approvals for this track must come from the Teaching and Learning Department.
- This major does not qualify as a single field endorsement. Individuals must complete the education/teaching concentration in a second major or education/teaching minor in another content area.

## General Degree Requirements

To earn a baccalaureate degree, all students must complete successfully, in addition to any other requirements, the University of Montana General Education Requirements. Please refer to the General Education Requirements page (p. 39) for more information.

Additional requirements for graduation can be found on the Degree/Certificate Requirements for Graduation page (p. 36).

Unless otherwise noted in individual program requirements, a minimum grade point average of 2.00 in all work attempted at the University of Montana-Missoula is required for graduation. Please see the Academic Policies and Procedures page (p. 25) for information on how your GPA is calculated.

Courses taken to satisfy the requirements of a major, minor, or certificate program must be completed with a grade of C- or better unless a higher grade is noted in the program requirements.

## Bachelor of Arts - Sociology; Sociology Education Concentration

- Students completing a double major in Sociology and Criminology must complete additional requirements for the Criminology major. See the Criminology major page (p. 275) for more information.

### Course Requirements

| Code                                   | Title                     | Hours |
|----------------------------------------|---------------------------|-------|
| <b>Core Courses</b>                    |                           |       |
| Complete all of the following courses: |                           |       |
| SOCI 101S                              | Introduction to Sociology | 3     |

|          |                               |   |
|----------|-------------------------------|---|
| SOCI 202 | Social Statistics             | 3 |
| SOCI 318 | Sociological Research Methods | 3 |
| SOCI 455 | Classical Sociological Theory | 3 |

### General Sociology Electives

Complete 24 credits of the following courses: 24

Any Sociology (SOCI) course

S W 423 Addiction Studies

### Teaching Methods Course

Complete the following course:

|         |                                                       |   |
|---------|-------------------------------------------------------|---|
| EDU 497 | Teaching and Assessing (Methods: 5-12 Social Studies) | 3 |
|---------|-------------------------------------------------------|---|

**Total Hours** 39

## Secondary Teaching Licensure

For endorsement to teach this subject, a student also must gain admission to the Teacher Education Program and meet all the requirements for secondary teaching licensure (p. 151). For more information, see the Teaching and Learning Department webpage (<https://www.umt.edu/education/departments/currinst/default.php>).

## Sociology Education Minor

- This minor contains course requirements designed to meet state standards. Those interested in teaching in K-12 schools must complete the education/teaching concentration of a major in a teaching content area plus the Teacher Education Program through the Department of Teaching and Learning. Additional teaching areas can be added through completion of the education/teaching concentration of a major or education/teaching minor in that content area.
  - Secondary Education Licensure Program (<https://www.umt.edu/education/departments/teaching-and-learning/tep/>)
  - Licensure Degree Requirements (p. 151)
- To complete this minor, you need to contact the Teaching and Learning Department.
- This minor does not qualify as a single field endorsement. Individuals must complete the education/teaching concentration in a second major or education/teaching minor in another content area.

## General Degree Requirements

To earn a baccalaureate degree, all students must complete successfully, in addition to any other requirements, the University of Montana General Education Requirements. Please refer to the General Education Requirements page (p. 39) for more information.

Additional requirements for graduation can be found on the Degree/Certificate Requirements for Graduation page (p. 36).

Unless otherwise noted in individual program requirements, a minimum grade point average of 2.00 in all work attempted at the University of Montana-Missoula is required for graduation. Please see the Academic Policies and Procedures page (p. 25) for information on how your GPA is calculated.



Courses taken to satisfy the requirements of a major, minor, or certificate program must be completed with a grade of C- or better unless a higher grade is noted in the program requirements.

## Minor - Sociology Education

- To earn a minor in Sociology Education, the student must complete a minimum of 21 credits in Sociology with at least 9 of these credits at the upper-division level.
- Students who want to major in Criminology and minor in Sociology can only count the following courses towards both degrees: SOCI 101S, SOCI 202, and SOCI 318.

### Course Requirements

| Code                                                                                                        | Title                                                 | Hours     |
|-------------------------------------------------------------------------------------------------------------|-------------------------------------------------------|-----------|
| <b>Core Courses</b>                                                                                         |                                                       |           |
| Complete all of the following courses:                                                                      |                                                       |           |
| SOCI 101S                                                                                                   | Introduction to Sociology                             | 3         |
| SOCI 318                                                                                                    | Sociological Research Methods                         | 3         |
| or SOCI 202                                                                                                 | Social Statistics                                     |           |
| SOCI 455                                                                                                    | Classical Sociological Theory                         | 3         |
| <b>General Sociology Electives</b>                                                                          |                                                       |           |
| Complete 12 credits of Sociology (SOCI) courses of which at least 3 must be taken at the 300- or 400-level. |                                                       | 12        |
| <b>Teaching Methods</b>                                                                                     |                                                       |           |
| Complete the following course:                                                                              |                                                       |           |
| EDU 497                                                                                                     | Teaching and Assessing (Methods: 5-12 Social Studies) | 3         |
| <b>Total Hours</b>                                                                                          |                                                       | <b>24</b> |

## Secondary Teaching Licensure

For endorsement to teach this subject, a student also must gain admission to the Teacher Education Program and meet all the requirements for secondary teaching licensure (p. 151). For more information, see the Teaching and Learning Department webpage (<https://www.umt.edu/education/departments/currinst/default.php>).

## Sociology Minor

### General Degree Requirements

To earn a baccalaureate degree, all students must complete successfully, in addition to any other requirements, the University of Montana General Education Requirements. Please refer to the General Education Requirements page (p. 39) for more information.

Additional requirements for graduation can be found on the Degree/Certificate Requirements for Graduation page (p. 36).

Unless otherwise noted in individual program requirements, a minimum grade point average of 2.00 in all work attempted at the University of Montana-Missoula is required for graduation. Please see the Academic Policies and Procedures page (p. 25) for information on how your GPA is calculated.

Courses taken to satisfy the requirements of a major, minor, or certificate program must be completed with a grade of C- or better unless a higher grade is noted in the program requirements.

## Minor - Sociology

- To earn a minor in Sociology, the student must complete a minimum of 21 credits in Sociology with at least 9 of these credits at the upper-division level.
- Students who want to major in Criminology and minor in Sociology can only count the following courses towards both degrees: SOCI 101S, SOCI 202, and SOCI 318.

### Course Requirements

| Code                                                                                                        | Title                         | Hours     |
|-------------------------------------------------------------------------------------------------------------|-------------------------------|-----------|
| <b>Core Courses</b>                                                                                         |                               |           |
| Complete all of the following courses:                                                                      |                               |           |
| SOCI 101S                                                                                                   | Introduction to Sociology     | 3         |
| SOCI 318                                                                                                    | Sociological Research Methods | 3         |
| or SOCI 202                                                                                                 | Social Statistics             |           |
| SOCI 455                                                                                                    | Classical Sociological Theory | 3         |
| <b>General Sociology Electives</b>                                                                          |                               |           |
| Complete 12 credits of Sociology (SOCI) courses of which at least 3 must be taken at the 300- or 400-level. |                               | 12        |
| <b>Total Hours</b>                                                                                          |                               | <b>21</b> |

## South and South-East Asian Studies

The South and South-East Asian Studies program is an interdisciplinary program with faculty input from several departments, including English, Anthropology, Sociology and Political Science. It offers students the opportunity to take classes on South and Southeast Asian peoples, cultures, histories, and societies as well as their literary, artistic and religious traditions. The region includes India, Nepal, Bhutan, Tibet, Sri Lanka, Pakistan, Bangladesh, Myanmar (Burma), Thailand, Laos, Cambodia, Vietnam, Malaysia, Brunei, Singapore, Indonesia, East Timor, and the Philippines. The primary focus is on India and Indonesia.

- South and South-East Asian Studies Minor (p. 281)

## South and South-East Asian Studies Minor

### General Degree Requirements

To earn a baccalaureate degree, all students must complete successfully, in addition to any other requirements, the University of Montana General Education Requirements. Please refer to the General Education Requirements page (p. 39) for more information.

Additional requirements for graduation can be found on the Degree/Certificate Requirements for Graduation page (p. 36).

Unless otherwise noted in individual program requirements, a minimum grade point average of 2.00 in all work attempted at the University of Montana-Missoula is required for graduation. Please see the Academic Policies and Procedures page (p. 25) for information on how your GPA is calculated.

Courses taken to satisfy the requirements of a major, minor, or certificate program must be completed with a grade of C- or better unless a higher grade is noted in the program requirements.

# Minor - South and South-East Asian Studies

## Course Requirements

| Code                                           | Title                               | Hours     |
|------------------------------------------------|-------------------------------------|-----------|
| <b>Lower-Division Requirements</b>             |                                     |           |
| Complete all of the following courses:         |                                     |           |
| ANTY 102H                                      | Intro to South & S. East Asia       | 3         |
| GH 161L                                        | Asian Humanities                    | 3         |
| SSEA 202X                                      | Introduction to India               | 3         |
| <b>Upper-Division Electives</b>                |                                     |           |
| Complete 9 credits from the following courses: |                                     | 9         |
| ANTY 104                                       | Ancient Migrations                  |           |
| ANTY 254X                                      | Archaeological Wonders of the World |           |
| ANTY 427                                       | Anthropology of Gender              |           |
| ENST 427                                       | Social Issues: The Mekong Delta     |           |
| LIT 344                                        | Asian American Literature           |           |
| PSCI 482                                       | Politics of the World Economy       |           |
| <b>Total Hours</b>                             |                                     | <b>18</b> |

# Women's, Gender, and Sexuality Studies

Women's, Gender and Sexuality Studies, an interdisciplinary program founded in 1990, encourages the production, discussion, and dissemination of knowledge about women's experiences, oppressions, and achievements in Montana, the U.S., and the world. In the last decade this focus has broadened to include study of the social and cultural construction of gender, sex, and sexualities. By fostering awareness of cultural and international diversity, as well as of the circulations of power mediated by race, class, age, and sexual orientation, Women's, Gender and Sexuality Studies encourages students to think critically and to envision justice for all peoples.

The Women's, Gender and Sexuality Studies program is administered by the director, with assistance from the program coordinator, in consultation with the Women's, Gender and Sexuality Studies Executive Committee, an interdisciplinary group of faculty and professional associates with teaching, research, and scholarly interests in women, gender and sexuality.

Students may include Women's, Gender and Sexuality Studies in their studies by earning a B.A. or by completing a minor.

Students may select coursework from a wide variety of courses offered in the humanities, social sciences, natural sciences, law, education and other disciplines. Women's, Gender and Sexuality Studies offers scholarships and sponsors or co-sponsors a variety of events including lectures, discussions, and performances that make a vibrant contribution to both the campus and the Missoula community life.

To be admitted, students must register with the Women's, Gender and Sexuality Studies director, who will explain major or minor requirements and supervise their program.

- Women's, Gender and Sexuality Studies B.A. (p. 282)
- Women's, Gender and Sexuality Studies Minor (p. 284)
- LGBTIQ+ Studies Certificate (p. 285)

# Women's, Gender and Sexuality Studies B.A.

## General Degree Requirements

To earn a baccalaureate degree, all students must complete successfully, in addition to any other requirements, the University of Montana General Education Requirements. Please refer to the General Education Requirements page (p. 39) for more information.

Additional requirements for graduation can be found on the Degree/ Certificate Requirements for Graduation page (p. 36).

Unless otherwise noted in individual program requirements, a minimum grade point average of 2.00 in all work attempted at the University of Montana-Missoula is required for graduation. Please see the Academic Policies and Procedures page (p. 25) for information on how your GPA is calculated.

Courses taken to satisfy the requirements of a major, minor, or certificate program must be completed with a grade of C- or better unless a higher grade is noted in the program requirements.

# Bachelor of Arts - Women's, Gender, and Sexuality Studies

## Course Requirements

| Code                                           | Title                                                        | Hours |
|------------------------------------------------|--------------------------------------------------------------|-------|
| <b>Required Courses</b>                        |                                                              |       |
| WGSS 163L                                      | Historical and Literary Perspectives in Gender and Sexuality | 3     |
| WGSS 263S                                      | Social and Political Perspectives on Gender and Sexuality    | 3     |
| WGSS 363                                       | Feminist and Queer Theories and Methods                      | 3     |
| WGSS 398                                       | Coop Education/Internship <sup>1</sup>                       | 3     |
| WGSS 499                                       | Women's, Gender, and Sexuality Studies Capstone              | 3     |
| <b>Humanities Electives <sup>2</sup></b>       |                                                              |       |
| Complete 9 credits from the following courses: |                                                              | 9     |
| AAST 141H                                      | Black: From Africa to Hip-Hop                                |       |
| AAST 375                                       | Black Women: Race, Gender and Sexuality                      |       |
| COMX 380                                       | Gender and Communication                                     |       |
| COMX 449                                       | Rhetoric of Women's Activism                                 |       |
| GH 151L                                        | Introduction to Western Humanities: Antiquity                |       |
| HSTA 342H                                      | African American History to 1865                             |       |
| HSTA 343H                                      | African American History Since 1865                          |       |
| HSTA 347                                       | Voodoo, Muslim, Church: Black Religion                       |       |
| HSTA 361                                       | The American South                                           |       |
| HSTA 370H                                      | Women in America: Colonial Period to Civil War               |       |
| HSTA 371H                                      | Women in America: From the Civil War to the Present          |       |

|           |                                                    |
|-----------|----------------------------------------------------|
| HSTA 377  | Alcohol in American History                        |
| HSTA 385  | Families & Children in America                     |
| HSTA 415  | The Black Radical Tradition                        |
| HSTA 417  | Prayer & Civil Rights                              |
| HSTA 471  | Writing Women's Lives                              |
| LIT 304   | U.S. Writers of Color                              |
| LIT 337L  | Gender & Sexuality in English Fiction              |
| NASX 235X | Oral and Written Traditions of Native Americans    |
| NASX 304E | Native American Beliefs and Philosophy             |
| WGSS 250  | Media Representations of Women, Men, and Sexuality |

**Social Science Electives <sup>2</sup>**Complete 9 credits from the following courses: **9**

|           |                                                       |
|-----------|-------------------------------------------------------|
| ANTY 330X | Peoples and Cultures of World                         |
| ANTY 427  | Anthropology of Gender                                |
| COUN 242S | Intimate Relationships                                |
| ENST 489S | Environmental Justice Issues & Solutions              |
| NASX 231X | Indigenous World View Perspectives                    |
| NASX 303E | Ecological Perspectives in Native American Traditions |
| PSCI 443  | Politics of Social Movements                          |
| PSYX 348  | Trauma and Resilience                                 |
| PSYX 362  | Multicultural Psychology                              |
| SOCI 220S | Race, Gender & Class                                  |
| SOCI 275S | Gender and Society                                    |
| SOCI 325  | Social Stratification                                 |
| SOCI 332  | Sociology of the Family                               |
| SOCI 346  | Rural Sociology                                       |
| SOCI 443  | Sociology of Poverty                                  |

**Total Hours** **33**

<sup>1</sup> Students must arrange a WGSS 398 internship with the WGSS Director prior to beginning their senior year. A list of available internships is available in the WGSS Office.

<sup>2</sup> Of the 18 elective credits, 11 credits must be upper-division. WGSS internship and independent study courses may count for either the Humanities or Social Science Electives, depending on the topic.

## Four Year Plan

This plan does not include General Education requirements that are fulfilled through major requirements.

Students are highly encouraged to double major or minor in another subject area.

| Course                        | Title                                                        | Hours     |
|-------------------------------|--------------------------------------------------------------|-----------|
| <b>Freshman</b>               |                                                              |           |
| <b>Autumn</b>                 |                                                              |           |
| WGSS 163L                     | Historical and Literary Perspectives in Gender and Sexuality | 3         |
| WRIT 101                      | College Writing I                                            | 4         |
| Foreign Language 101          |                                                              | 4         |
| General Education Requirement |                                                              | 3         |
| Elective                      |                                                              | 3         |
| <b>Hours</b>                  |                                                              | <b>17</b> |

**Spring**

|              |                                                          |   |
|--------------|----------------------------------------------------------|---|
| ANTY 330X    | Peoples and Cultures of World (Social Science elective)  | 3 |
| or ANTY 427  |                                                          |   |
| or COUN 242S | or Anthropology of Gender                                |   |
| or ENST 489S | or Intimate Relationships                                |   |
| or NASX 231X | or Environmental Justice Issues & Solutions              |   |
| or NASX 303E | or Indigenous World View Perspectives                    |   |
| or PSCI 443  | or Ecological Perspectives in Native American Traditions |   |
| or PSYX 348  | or Politics of Social Movements                          |   |
| or PSYX 362  | or Trauma and Resilience                                 |   |
| or SOCI 220S | or Multicultural Psychology                              |   |
| or SOCI 325  | or Race, Gender & Class                                  |   |
| or SOCI 332  | or Social Stratification                                 |   |
| or SOCI 346  | or Sociology of the Family                               |   |
| or SOCI 443  | or Rural Sociology                                       |   |
|              | or Sociology of Poverty                                  |   |

|                               |   |
|-------------------------------|---|
| Foreign Language 102          | 4 |
| General Education Requirement | 6 |
| Elective                      | 3 |

**Hours** **16****Sophomore****Autumn**

|              |                                                           |   |
|--------------|-----------------------------------------------------------|---|
| WGSS 263S    | Social and Political Perspectives on Gender and Sexuality | 3 |
| AAST 141H    | Black: From Africa to Hip-Hop (Humanities Elective)       | 3 |
| or AAST 375  | or Black Women: Race, Gender and Sexuality                |   |
| or COMX 380  | or Gender and Communication                               |   |
| or COMX 449  | or Rhetoric of Women's Activism                           |   |
| or GH 151L   | or Introduction to Western Humanities: Antiquity          |   |
| or HSTA 342H | or African American History to 1865                       |   |
| or HSTA 343H | or African American History Since 1865                    |   |
| or HSTA 347  | or Voodoo, Muslim, Church: Black Religion                 |   |
| or HSTA 361  | or The American South                                     |   |
| or HSTA 370H | or Women in America: Colonial Period to Civil War         |   |
| or HSTA 371H | or Women in America: From the Civil War to the Present    |   |
| or HSTA 377  | or Alcohol in American History                            |   |
| or HSTA 385  | or Families & Children in America                         |   |
| or HSTA 415  | or The Black Radical Tradition                            |   |
| or HSTA 417  | or Prayer & Civil Rights                                  |   |
| or HSTA 471  | or Writing Women's Lives                                  |   |
| or LIT 304   | or U.S. Writers of Color                                  |   |
| or LIT 337L  | or Gender & Sexuality in English Fiction                  |   |
| or NASX 235X | or Oral and Written Traditions of Native Americans        |   |
| or NASX 304E | or Native American Beliefs and Philosophy                 |   |
| or WGSS 250  | or Media Representations of Women, Men, and Sexuality     |   |

|                               |   |
|-------------------------------|---|
| General Education Requirement | 6 |
| Elective                      | 3 |

**Hours** **15****Spring**

|              |                                                                         |   |
|--------------|-------------------------------------------------------------------------|---|
| ANTY 330X    | Peoples and Cultures of World (Upper Division Social Sciences Elective) | 3 |
| or ANTY 427  |                                                                         |   |
| or ENST 489S | or Anthropology of Gender                                               |   |
| or NASX 303E | or Environmental Justice Issues & Solutions                             |   |
| or PSCI 443  | or Ecological Perspectives in Native American Traditions                |   |
| or PSYX 348  | or Politics of Social Movements                                         |   |
| or PSYX 362  | or Trauma and Resilience                                                |   |
| or SOCI 325  | or Multicultural Psychology                                             |   |
| or SOCI 332  | or Social Stratification                                                |   |
| or SOCI 346  | or Sociology of the Family                                              |   |
| or SOCI 443  | or Rural Sociology                                                      |   |
|              | or Sociology of Poverty                                                 |   |

|                               |   |
|-------------------------------|---|
| General Education Requirement | 9 |
| Elective                      | 3 |

**Hours** **15****Junior****Autumn**

|          |            |   |
|----------|------------|---|
| WGSS 398 | Internship | 3 |
|----------|------------|---|

|                                                                                                                                                                                                                                                              |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            |            |
|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|------------|
| AAST 375<br>or COMX 380<br>or COMX 449<br>or HSTA 342H<br>or HSTA 343H<br>or HSTA 347<br>or HSTA 361<br>or HSTA 370H<br>or HSTA 371H<br>or HSTA 377<br>or HSTA 385<br>or HSTA 415<br>or HSTA 417<br>or HSTA 471<br>or LIT 304<br>or LIT 337L<br>or NASX 304E | Black Women: Race, Gender and Sexuality (Upper Division Humanities Elective)<br>or Gender and Communication<br>or Rhetoric of Women's Activism<br>or African American History to 1865<br>or African American History Since 1865<br>or Voodoo, Muslim, Church: Black Religion<br>or The American South<br>or Women in America: Colonial Period to Civil War<br>or Women in America: From the Civil War to the Present<br>or Alcohol in American History<br>or Families & Children in America<br>or The Black Radical Tradition<br>or Prayer & Civil Rights<br>or Writing Women's Lives<br>or U.S. Writers of Color<br>or Gender & Sexuality in English Fiction<br>or Native American Beliefs and Philosophy | 3          |
| Upper Division Elective                                                                                                                                                                                                                                      |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            | 6          |
| Elective                                                                                                                                                                                                                                                     |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            | 3          |
| <b>Hours</b>                                                                                                                                                                                                                                                 |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            | <b>15</b>  |
| <b>Spring</b>                                                                                                                                                                                                                                                |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            |            |
| WGSS 363                                                                                                                                                                                                                                                     | Feminist and Queer Theories and Methods                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    | 3          |
| Upper Division Elective                                                                                                                                                                                                                                      |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            | 9          |
| Elective                                                                                                                                                                                                                                                     |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            | 3          |
| <b>Hours</b>                                                                                                                                                                                                                                                 |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            | <b>15</b>  |
| <b>Senior</b>                                                                                                                                                                                                                                                |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            |            |
| <b>Autumn</b>                                                                                                                                                                                                                                                |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            |            |
| AAST 375<br>or COMX 380<br>or COMX 449<br>or HSTA 342H<br>or HSTA 343H<br>or HSTA 347<br>or HSTA 361<br>or HSTA 370H<br>or HSTA 371H<br>or HSTA 377<br>or HSTA 385<br>or HSTA 415<br>or HSTA 417<br>or HSTA 471<br>or LIT 304<br>or LIT 337L<br>or NASX 304E | Black Women: Race, Gender and Sexuality (Upper Division Humanities Elective)<br>or Gender and Communication<br>or Rhetoric of Women's Activism<br>or African American History to 1865<br>or African American History Since 1865<br>or Voodoo, Muslim, Church: Black Religion<br>or The American South<br>or Women in America: Colonial Period to Civil War<br>or Women in America: From the Civil War to the Present<br>or Alcohol in American History<br>or Families & Children in America<br>or The Black Radical Tradition<br>or Prayer & Civil Rights<br>or Writing Women's Lives<br>or U.S. Writers of Color<br>or Gender & Sexuality in English Fiction<br>or Native American Beliefs and Philosophy | 3          |
| Upper Division Elective                                                                                                                                                                                                                                      |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            | 6          |
| Elective                                                                                                                                                                                                                                                     |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            | 6          |
| <b>Hours</b>                                                                                                                                                                                                                                                 |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            | <b>15</b>  |
| <b>Spring</b>                                                                                                                                                                                                                                                |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            |            |
| ANTY 330X<br>or ANTY 427<br>or ENST 489S<br>or NASX 303E<br>or PSCI 443<br>or PSYX 348<br>or PSYX 362<br>or SOCI 325<br>or SOCI 332<br>or SOCI 346<br>or SOCI 443                                                                                            | Peoples and Cultures of World (Upper Division Social Sciences Elective)<br>or Anthropology of Gender<br>or Environmental Justice Issues & Solutions<br>or Ecological Perspectives in Native American Traditions<br>or Politics of Social Movements<br>or Trauma and Resilience<br>or Multicultural Psychology<br>or Social Stratification<br>or Sociology of the Family<br>or Rural Sociology<br>or Sociology of Poverty                                                                                                                                                                                                                                                                                   | 3          |
| WGSS 499                                                                                                                                                                                                                                                     | Women's, Gender, and Sexuality Studies Capstone                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            | 3          |
| Upper Division Elective                                                                                                                                                                                                                                      |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            | 9          |
| <b>Hours</b>                                                                                                                                                                                                                                                 |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            | <b>15</b>  |
| <b>Total Hours</b>                                                                                                                                                                                                                                           |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            | <b>123</b> |

## Women's, Gender and Sexuality Studies Minor

### General Degree Requirements

To earn a baccalaureate degree, all students must complete successfully, in addition to any other requirements, the University of Montana General Education Requirements. Please refer to the General Education Requirements page (p. 39) for more information.

Additional requirements for graduation can be found on the Degree/Certificate Requirements for Graduation page (p. 36).

Unless otherwise noted in individual program requirements, a minimum grade point average of 2.00 in all work attempted at the University of Montana-Missoula is required for graduation. Please see the Academic Policies and Procedures page (p. 25) for information on how your GPA is calculated.

Courses taken to satisfy the requirements of a major, minor, or certificate program must be completed with a grade of C- or better unless a higher grade is noted in the program requirements.

## Minor - Women's, Gender, and Sexuality Studies

### Course Requirements

| Code                                                                                                          | Title                                                                  | Hours |
|---------------------------------------------------------------------------------------------------------------|------------------------------------------------------------------------|-------|
| <b>Core Requirements</b>                                                                                      |                                                                        |       |
| Complete all of the following courses:                                                                        |                                                                        |       |
| WGSS 163L                                                                                                     | Historical and Literary Perspectives in Gender and Sexuality           | 3     |
|                                                                                                               | or WGSS 263S Social and Political Perspectives on Gender and Sexuality |       |
| WGSS 363                                                                                                      | Feminist and Queer Theories and Methods                                | 3     |
| WGSS 499                                                                                                      | Women's, Gender, and Sexuality Studies Capstone                        | 3     |
| <b>Electives</b>                                                                                              |                                                                        |       |
| Complete 12 credits from the following courses, at least one of which must be upper-division (300-400 level): |                                                                        | 12    |
| Any WGSS course                                                                                               |                                                                        |       |
| AAST 141H                                                                                                     | Black: From Africa to Hip-Hop                                          |       |
| ANTY 330X                                                                                                     | Peoples and Cultures of World                                          |       |
| ANTY 427                                                                                                      | Anthropology of Gender                                                 |       |
| COMX 380                                                                                                      | Gender and Communication                                               |       |
| COMX 449                                                                                                      | Rhetoric of Women's Activism                                           |       |
| COUN 242S                                                                                                     | Intimate Relationships                                                 |       |
| ENST 489S                                                                                                     | Environmental Justice Issues & Solutions                               |       |
| GRMN 317L                                                                                                     | Introduction to Multicultural Literature in Contemporary Germany       |       |
| HSTA 342H                                                                                                     | African American History to 1865                                       |       |
| HSTA 343H                                                                                                     | African American History Since 1865                                    |       |
| HSTA 347                                                                                                      | Voodoo, Muslim, Church: Black Religion                                 |       |
| HSTA 361                                                                                                      | The American South                                                     |       |

|                    |                                                       |
|--------------------|-------------------------------------------------------|
| HSTA 370H          | Women in America: Colonial Period to Civil War        |
| HSTA 371H          | Women in America: From the Civil War to the Present   |
| HSTA 377           | Alcohol in American History                           |
| HSTA 385           | Families & Children in America                        |
| HSTA 415           | The Black Radical Tradition                           |
| HSTA 417           | Prayer & Civil Rights                                 |
| HSTA 471           | Writing Women's Lives                                 |
| LIT 337L           | Gender & Sexuality in English Fiction                 |
| NASX 231X          | Indigenous World View Perspectives                    |
| NASX 235X          | Oral and Written Traditions of Native Americans       |
| NASX 303E          | Ecological Perspectives in Native American Traditions |
| NASX 304E          | Native American Beliefs and Philosophy                |
| PSCI 443           | Politics of Social Movements                          |
| PSYX 348           | Trauma and Resilience                                 |
| SOCI 220S          | Race, Gender & Class                                  |
| SOCI 275S          | Gender and Society                                    |
| SOCI 325           | Social Stratification                                 |
| SOCI 332           | Sociology of the Family                               |
| SOCI 346           | Rural Sociology                                       |
| SOCI 443           | Sociology of Poverty                                  |
| <b>Total Hours</b> | <b>21</b>                                             |

## LGBTIQ+ Studies Certificate

The undergraduate certificate in LGBTIQ+ Studies is a twelve-credit, interdisciplinary program that groups together courses with content focusing on gender and sexual diversity with a goal of preparing students for their future careers by providing a strong grounding in diversity and equity issues around gender and sexuality. The certificate is housed in the Women's, Gender, and Sexuality Studies Program.

## General Certificate Requirements

Additional requirements for graduation can be found on the Degree/Certificate Requirements for Graduation page (p. 36).

Unless otherwise noted in individual program requirements, a minimum grade point average of 2.00 in all work attempted at the University of Montana-Missoula is required for graduation. Please see the Academic Policies and Procedures page (p. 25) for information on how your GPA is calculated.

Courses taken to satisfy the requirements of a major, minor, or certificate program must be completed with a grade of C- or better unless a higher grade is noted in the program requirements.

## Post-Secondary Certificate - LGBTIQ+ Studies

### Course Requirements

| Code                                   | Title | Hours |
|----------------------------------------|-------|-------|
| <b>Required Courses</b>                |       |       |
| Complete all of the following courses: |       |       |

|                                              |                                                           |           |
|----------------------------------------------|-----------------------------------------------------------|-----------|
| WGSS 363                                     | Feminist and Queer Theories and Methods                   | 3         |
| WGSS 378                                     | LGBTQ Studies                                             | 3         |
| <b>Electives</b> <sup>1</sup>                |                                                           |           |
| Complete 6 credits of the following courses: |                                                           | 6         |
| AAS 375                                      | Black Women: Race, Gender and Sexuality                   |           |
| HSTA 370H                                    | Women in America: Colonial Period to Civil War            |           |
| HSTA 371H                                    | Women in America: From the Civil War to the Present       |           |
| HSTA 385                                     | Families & Children in America                            |           |
| WGSS 263S                                    | Social and Political Perspectives on Gender and Sexuality |           |
| WGSS 392                                     | Independent Study                                         |           |
| WGSS 398                                     | Coop Education/Internship                                 |           |
| WGSS 491                                     | Special Topics                                            |           |
| WGSS 492                                     | Independent Study                                         |           |
| <b>Total Hours</b>                           |                                                           | <b>12</b> |

<sup>1</sup> Other courses and new courses may count for the certificate electives with the approval of the LGBTIQ+ Studies Committee.

## World Languages and Cultures

Instruction is offered in the following languages and literatures:

- Arabic
- Chinese
- French
- German
- Classical Greek
- Italian
- Japanese
- Latin
- Russian
- Spanish

In addition, instruction is offered in linguistics and foreign literatures in English translation, film, and the study of foreign cultures.

Undergraduate courses have been planned to meet the needs of students who began studying a language in high school as well as those who undertake such study for the first time at the University.

The courses are intended to serve several purposes:

1. Contribute to the general education of students by giving them an opportunity to gain insight into patterns of living and thinking which are different from their own;
2. Enable students to gain proficiency in the language;
3. Prepare candidates for careers in research and college teaching by providing a solid basis for graduate studies in the various languages;
4. Prepare future teachers of foreign languages;
5. Provide language training requisite to careers in government, foreign commerce, and library work;
6. Enable students to read foreign publications and to meet graduate foreign language requirements in their field.



**High School Preparation:** Credit is automatically granted for Advanced Placement scores of 3, 4, or 5. At each UM Orientation, the department offers a computerized placement/assessment examination in French, German, and Spanish. Students also can arrange individually to take the CLEP exam, administered by Testing Services in French, German, or Spanish.

These exams are not required, but serve one or more of three purposes:

1. **Exemption from the General Education Competency Requirement in Foreign Language:** if the student achieves a score that indicates a competence equivalent to the completion of French, German, or Spanish 102 (second semester). (See the General Education Requirements (p. 39) section of this catalog.)
2. **Placement for further study in the language:** the score achieved on this test is an accurate indicator of the course level at which language study should be resumed at the University (e.g. 102, 201, 202).
3. **Credit by examination:** A student with extensive language study may score high enough on the placement exam to qualify for University credits if she or he places into 202 or 301. By taking the course into which she or he placed (202 or 301) and receiving a B (3.00) or better, the student may then receive four by-pass credits (Pass grade only) for the preceding course (201 or 202).

Students who elect not to take this exam may:

1. Satisfy the General Education Competency Requirement in Foreign Language by successfully completing a University foreign language 102 (second semester) course.
2. Estimate their placement level for further study by the approximate equating of one year of high school study to one semester of university study. Students should consult with the department in making this estimate.

**Foreign Study Programs.** The Department of World Languages and Cultures offers programs of accredited study in Austria, Chile, China, France, Germany, Italy, Japan, Spain, Mexico, and Russia. Each program is supervised by a departmental faculty member, and is open to any student who meets the respective foreign language prerequisites. (There is no language prerequisite for the Study Abroad in Italy, but Italian is recommended.) Details concerning individual programs are available from the Department of World Languages and Cultures. The department also sponsors work/study internships abroad for students in Japanese.

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- Chinese Minor (p. 287)
- Classical Civilization Minor (p. 287)
- Classics B.A. - Classical Civilization (p. 288)
- Classics B.A. - Classical Languages (p. 289)
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- European Studies Minor (p. 292)
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- Japanese B.A. (p. 299)
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- World Competencies Certificate (p. 310)

## Arabic Studies Minor

### General Degree Requirements

To earn a baccalaureate degree, all students must complete successfully, in addition to any other requirements, the University of Montana General Education Requirements. Please refer to the General Education Requirements page (p. 39) for more information.

Additional requirements for graduation can be found on the Degree/Certificate Requirements for Graduation page (p. 36).

Unless otherwise noted in individual program requirements, a minimum grade point average of 2.00 in all work attempted at the University of Montana-Missoula is required for graduation. Please see the Academic Policies and Procedures page (p. 25) for information on how your GPA is calculated.

Courses taken to satisfy the requirements of a major, minor, or certificate program must be completed with a grade of C- or better unless a higher grade is noted in the program requirements.

### Minor - Arabic Studies

- This minor requires a minimum grade of C in all courses.
- At least 6 credits must be in courses numbered 300+.
- Before taking an independent study outside the Arabic program, students should consult with the minor advisor. Upon consent, up to three credits taken at the University of Montana or transferred from another institution may be counted as an elective if at least 75% of the content is related to the Arab world. Suggested electives are listed below.

### Course Requirements

| Code                | Title                                  | Hours |
|---------------------|----------------------------------------|-------|
| <b>Core Courses</b> |                                        |       |
| ARAB 101            | Elementary Modern Standard Arabic I    | 4     |
| ARAB 102            | Elementary Modern Standard Arabic II   | 4     |
| ARAB 201            | Intermediate Modern Standard Arabic I  | 4     |
| ARAB 202            | Intermediate Modern Standard Arabic II | 4     |

|                                        |                                                                           |           |
|----------------------------------------|---------------------------------------------------------------------------|-----------|
| ARAB 305                               | The Arab World                                                            | 3         |
| <b>Electives</b>                       |                                                                           |           |
| Complete one of the following courses: |                                                                           | 3         |
| ARAB 392                               | Independent Study                                                         |           |
| HSTR 386                               | Nationalism and the Modern Middle East                                    |           |
| PSCI 320                               | Experimental Offering: Comparative Politics (Politics of the Middle East) |           |
| PSCI 334                               | International Security                                                    |           |
| <b>Total Hours</b>                     |                                                                           | <b>22</b> |

## Chinese Minor

### General Degree Requirements

To earn a baccalaureate degree, all students must complete successfully, in addition to any other requirements, the University of Montana General Education Requirements. Please refer to the General Education Requirements page (p. 39) for more information.

Additional requirements for graduation can be found on the Degree/Certificate Requirements for Graduation page (p. 36).

Unless otherwise noted in individual program requirements, a minimum grade point average of 2.00 in all work attempted at the University of Montana-Missoula is required for graduation. Please see the Academic Policies and Procedures page (p. 25) for information on how your GPA is calculated.

Courses taken to satisfy the requirements of a major, minor, or certificate program must be completed with a grade of C- or better unless a higher grade is noted in the program requirements.

### Minor - Chinese Course Requirements

| Code                                           | Title                          | Hours     |
|------------------------------------------------|--------------------------------|-----------|
| <b>Core Courses</b>                            |                                |           |
| Complete all of the following courses:         |                                |           |
| CHIN 101                                       | Elementary Chinese I           | 5         |
| CHIN 102                                       | Elementary Chinese II          | 5         |
| CHIN 201                                       | Intermediate Chinese I         | 5         |
| CHIN 202                                       | Intermediate Chinese II        | 5         |
| <b>Electives</b> <sup>1</sup>                  |                                |           |
| Complete 9 credits from the following courses: |                                | 9         |
| CHIN 313L                                      | Chinese Poetry in Translation  |           |
| CHIN 314                                       | Traditional Chinese Literature |           |
| CHIN 380                                       | Chinese Folktales              |           |
| CHIN 388                                       | Readings in Classical Chinese  |           |
| CHIN 391                                       | Special Topics                 |           |
| <b>Total Hours</b>                             |                                | <b>29</b> |

<sup>1</sup> With prior approval, 3 of these credits may be in China-focused courses offered by other departments.

## Classical Civilization Minor

### General Degree Requirements

To earn a baccalaureate degree, all students must complete successfully, in addition to any other requirements, the University of Montana General Education Requirements. Please refer to the General Education Requirements page (p. 39) for more information.

Additional requirements for graduation can be found on the Degree/Certificate Requirements for Graduation page (p. 36).

Unless otherwise noted in individual program requirements, a minimum grade point average of 2.00 in all work attempted at the University of Montana-Missoula is required for graduation. Please see the Academic Policies and Procedures page (p. 25) for information on how your GPA is calculated.

Courses taken to satisfy the requirements of a major, minor, or certificate program must be completed with a grade of C- or better unless a higher grade is noted in the program requirements.

### Minor - Classical Civilization

- This minor requires a cumulative institutional GPA of 2.5.

#### Course Requirements

| Code                                                                                                           | Title                                         | Hours |
|----------------------------------------------------------------------------------------------------------------|-----------------------------------------------|-------|
| <b>Core Requirements</b>                                                                                       |                                               |       |
| Complete all of the following courses:                                                                         |                                               |       |
| CLAS 160L                                                                                                      | Classical Mythology                           | 3     |
| or CLAS 180H                                                                                                   | Environment & Nature in Classical World       |       |
| CLAS 251L                                                                                                      | The Epic                                      | 3     |
| or CLAS 252L                                                                                                   | Greek Drama: Politics on Stage                |       |
| Complete one of the following courses:                                                                         |                                               | 3     |
| HSTR 302H                                                                                                      | Ancient Greece                                |       |
| HSTR 303                                                                                                       | Alexander the Great and the Hellenistic World |       |
| HSTR 304H                                                                                                      | Ancient Rome                                  |       |
| HSTR 321                                                                                                       | The Roman Empire                              |       |
| <b>Electives</b>                                                                                               |                                               |       |
| Complete 9 credits of the following courses. At least 3 credits must be at the 300- or 400-level. <sup>1</sup> |                                               | 9     |
| CLAS 360H                                                                                                      | Ancient Greek Civilization and Culture        |       |
| CLAS 393                                                                                                       | Study Abroad                                  |       |
| HSTR 211L                                                                                                      | Early Christianity                            |       |
| HSTR 302H                                                                                                      | Ancient Greece                                |       |
| HSTR 303                                                                                                       | Alexander the Great and the Hellenistic World |       |
| HSTR 304H                                                                                                      | Ancient Rome                                  |       |
| HSTR 309                                                                                                       | The First Historians                          |       |
| HSTR 314                                                                                                       | Origins of Western Religion                   |       |
| HSTR 321                                                                                                       | The Roman Empire                              |       |
| HSTR 351                                                                                                       | Democracy: Ancient to Modern                  |       |
| HSTR 365                                                                                                       | History of the Ancient Near East              |       |
| LATN 101                                                                                                       | Elementary Latin I                            |       |
| LATN 102                                                                                                       | Elementary Latin II                           |       |

|                    |                                           |           |
|--------------------|-------------------------------------------|-----------|
| LATN 202           | Intermediate Latin II                     |           |
| LATN 292           | Independent Study                         |           |
| LATN 311           | Major Latin Authors                       |           |
| LATN 391           | Special Topics                            |           |
| LATN 392           | Independent Study                         |           |
| PHL 261Y           | History of Ancient Philosophy             |           |
| PHL 309E           | The Art of Living                         |           |
| PHL 465            | Plato                                     |           |
| PHL 466            | Aristotle                                 |           |
| PSCI 457           | Classical & Medieval Political Philosophy |           |
| <b>Total Hours</b> |                                           | <b>18</b> |

<sup>1</sup> Classes taken in fulfillment of the Core requirements cannot be counted towards electives.

## Classics B.A. - Classical Civilization

### General Degree Requirements

To earn a baccalaureate degree, all students must complete successfully, in addition to any other requirements, the University of Montana General Education Requirements. Please refer to the General Education Requirements page (p. 39) for more information.

Additional requirements for graduation can be found on the Degree/Certificate Requirements for Graduation page (p. 36).

Unless otherwise noted in individual program requirements, a minimum grade point average of 2.00 in all work attempted at the University of Montana-Missoula is required for graduation. Please see the Academic Policies and Procedures page (p. 25) for information on how your GPA is calculated.

Courses taken to satisfy the requirements of a major, minor, or certificate program must be completed with a grade of C- or better unless a higher grade is noted in the program requirements.

## Bachelor of Arts - Classics; Classical Civilization Concentration

- This major requires a cumulative institutional GPA of 2.5.

### Course Requirements

| Code                                              | Title                          | Hours |
|---------------------------------------------------|--------------------------------|-------|
| Classics Core Courses                             |                                |       |
| Complete all of the following courses:            |                                |       |
| CLAS 160L                                         | Classical Mythology            | 3     |
| CLAS 251L                                         | The Epic                       | 3     |
| or CLAS 252L                                      | Greek Drama: Politics on Stage |       |
| CLAS 399                                          | Capstone                       | 3     |
| HSTR 302H                                         | Ancient Greece                 | 3     |
| or HSTR 304H                                      | Ancient Rome                   |       |
| Language Requirement                              |                                |       |
| Complete one of the following language sequences: |                                | 12    |

|                                                    |                                                                                                        |           |
|----------------------------------------------------|--------------------------------------------------------------------------------------------------------|-----------|
| LATN 101<br>& LATN 102<br>& LATN 201<br>& LATN 202 | Elementary Latin I<br>and Elementary Latin II<br>and Intermediate Latin I<br>and Intermediate Latin II |           |
| GRK 101<br>& GRK 102<br>& GRK 201<br>& GRK 202     | Elementary Greek I<br>and Elementary Greek II<br>and Intermediate Greek I<br>and Intermediate Greek II |           |
| <b>Electives</b> <sup>1</sup>                      |                                                                                                        |           |
| Complete 15 credits of the following courses:      |                                                                                                        | 15        |
| CLAS 360H                                          | Ancient Greek Civilization and Culture                                                                 |           |
| GRK 101                                            | Elementary Greek I                                                                                     |           |
| GRK 102                                            | Elementary Greek II                                                                                    |           |
| GRK 201                                            | Intermediate Greek I                                                                                   |           |
| GRK 202                                            | Intermediate Greek II                                                                                  |           |
| HSTR 211L                                          | Early Christianity                                                                                     |           |
| HSTR 302H                                          | Ancient Greece                                                                                         |           |
| HSTR 303                                           | Alexander the Great and the Hellenistic World                                                          |           |
| HSTR 304H                                          | Ancient Rome                                                                                           |           |
| HSTR 309                                           | The First Historians                                                                                   |           |
| HSTR 314                                           | Origins of Western Religion                                                                            |           |
| HSTR 321                                           | The Roman Empire                                                                                       |           |
| HSTR 351                                           | Democracy: Ancient to Modern                                                                           |           |
| HSTR 365                                           | History of the Ancient Near East                                                                       |           |
| LATN 101                                           | Elementary Latin I                                                                                     |           |
| LATN 102                                           | Elementary Latin II                                                                                    |           |
| LATN 201                                           | Intermediate Latin I                                                                                   |           |
| LATN 202                                           | Intermediate Latin II                                                                                  |           |
| LATN 311                                           | Major Latin Authors                                                                                    |           |
| PHL 261Y                                           | History of Ancient Philosophy                                                                          |           |
| PHL 465                                            | Plato                                                                                                  |           |
| PHL 466                                            | Aristotle                                                                                              |           |
| <b>Total Hours</b>                                 |                                                                                                        | <b>39</b> |

<sup>1</sup> Classes taken in fulfillment of the Classics Core requirements cannot be counted towards electives.

## Four Year Plan

| Course                         | Title               | Hours |
|--------------------------------|---------------------|-------|
| Freshman                       |                     |       |
| Autumn                         |                     |       |
| LATN 101                       | Elementary Latin I  | 3     |
| WRIT 101                       | College Writing I   | 4     |
| Math Requirement               |                     | 3     |
| General Education Requirement  |                     | 3     |
| HUSC 194                       | Seminar/Workshop    | 1     |
| Activity                       |                     | 1     |
| Hours                          |                     | 15    |
| Spring                         |                     |       |
| LATN 102                       | Elementary Latin II | 3     |
| General Education Requirements |                     | 11    |
| Activity                       |                     | 2     |
| Hours                          |                     | 16    |

**Sophomore****Autumn**

|                                |                                               |           |
|--------------------------------|-----------------------------------------------|-----------|
| LATN 201                       | Intermediate Latin I                          | 3         |
| CLAS 251L<br>or CLAS 252L      | The Epic<br>or Greek Drama: Politics on Stage | 3         |
| CLAS 160L                      | Classical Mythology                           | 3         |
| General Education Requirements |                                               | 6         |
| <b>Hours</b>                   |                                               | <b>15</b> |

**Spring**

|                                |                                   |           |
|--------------------------------|-----------------------------------|-----------|
| LATN 202                       | Intermediate Latin II             | 3         |
| HSTR 302H<br>or HSTR 304H      | Ancient Greece<br>or Ancient Rome | 3         |
| General Education Requirements |                                   | 6         |
| Elective                       |                                   | 3         |
| <b>Hours</b>                   |                                   | <b>15</b> |

**Junior****Autumn**

|                          |  |           |
|--------------------------|--|-----------|
| Classics Electives       |  | 6         |
| Upper Division Electives |  | 9         |
| <b>Hours</b>             |  | <b>15</b> |

**Spring**

|                               |  |           |
|-------------------------------|--|-----------|
| Classics Elective             |  | 3         |
| Upper Division Electives      |  | 9         |
| General Education Requirement |  | 3         |
| <b>Hours</b>                  |  | <b>15</b> |

**Senior****Autumn**

|                          |          |           |
|--------------------------|----------|-----------|
| CLAS 399                 | Capstone | 3         |
| Classics Elective        |          | 3         |
| Upper Division Electives |          | 9         |
| <b>Hours</b>             |          | <b>15</b> |

**Spring**

|                          |  |            |
|--------------------------|--|------------|
| Classics Elective        |  | 3          |
| Upper Division Electives |  | 12         |
| <b>Hours</b>             |  | <b>15</b>  |
| <b>Total Hours</b>       |  | <b>121</b> |

*Last updated Autumn 2024*

## Classics B.A. - Classical Languages

### General Degree Requirements

To earn a baccalaureate degree, all students must complete successfully, in addition to any other requirements, the University of Montana General Education Requirements. Please refer to the General Education Requirements page (p. 39) for more information.

Additional requirements for graduation can be found on the Degree/Certificate Requirements for Graduation page (p. 36).

Unless otherwise noted in individual program requirements, a minimum grade point average of 2.00 in all work attempted at the University of Montana-Missoula is required for graduation. Please see the Academic Policies and Procedures page (p. 25) for information on how your GPA is calculated.

Courses taken to satisfy the requirements of a major, minor, or certificate program must be completed with a grade of C- or better unless a higher grade is noted in the program requirements.

## Bachelor of Arts - Classics; Classical Languages Concentration

- This major requires a cumulative institutional GPA of 2.5.

### Course Requirements

| Code                                                                                                                | Title                                                                                                  | Hours     |
|---------------------------------------------------------------------------------------------------------------------|--------------------------------------------------------------------------------------------------------|-----------|
| <b>Classics Core Courses</b>                                                                                        |                                                                                                        |           |
| Complete all of the following courses:                                                                              |                                                                                                        |           |
| CLAS 160L                                                                                                           | Classical Mythology                                                                                    | 3         |
| CLAS 251L<br>or CLAS 252L                                                                                           | The Epic<br>Greek Drama: Politics on Stage                                                             | 3         |
| CLAS 399                                                                                                            | Capstone                                                                                               | 3         |
| HSTR 302H<br>or HSTR 304H                                                                                           | Ancient Greece<br>Ancient Rome                                                                         | 3         |
| <b>Language Requirement</b>                                                                                         |                                                                                                        |           |
| Complete one of the following language sequences:                                                                   |                                                                                                        | 12        |
| LATN 101<br>& LATN 102<br>& LATN 201<br>& LATN 202                                                                  | Elementary Latin I<br>and Elementary Latin II<br>and Intermediate Latin I<br>and Intermediate Latin II |           |
| GRK 101<br>& GRK 102<br>& GRK 201<br>& GRK 202                                                                      | Elementary Greek I<br>and Elementary Greek II<br>and Intermediate Greek I<br>and Intermediate Greek II |           |
| <b>Electives</b>                                                                                                    |                                                                                                        |           |
| Complete an additional 15 credits of Greek and Latin Language. A minimum of 9 credits in each language is required. |                                                                                                        | 15        |
| GRK 101                                                                                                             | Elementary Greek I                                                                                     |           |
| GRK 102                                                                                                             | Elementary Greek II                                                                                    |           |
| GRK 201                                                                                                             | Intermediate Greek I                                                                                   |           |
| GRK 202                                                                                                             | Intermediate Greek II                                                                                  |           |
| HSTR 211L                                                                                                           | Early Christianity                                                                                     |           |
| HSTR 302H                                                                                                           | Ancient Greece                                                                                         |           |
| HSTR 303                                                                                                            | Alexander the Great and the Hellenistic World                                                          |           |
| HSTR 304H                                                                                                           | Ancient Rome                                                                                           |           |
| HSTR 309                                                                                                            | The First Historians                                                                                   |           |
| HSTR 314                                                                                                            | Origins of Western Religion                                                                            |           |
| HSTR 321                                                                                                            | The Roman Empire                                                                                       |           |
| HSTR 351                                                                                                            | Democracy: Ancient to Modern                                                                           |           |
| HSTR 365                                                                                                            | History of the Ancient Near East                                                                       |           |
| LATN 101                                                                                                            | Elementary Latin I                                                                                     |           |
| LATN 102                                                                                                            | Elementary Latin II                                                                                    |           |
| LATN 201                                                                                                            | Intermediate Latin I                                                                                   |           |
| LATN 202                                                                                                            | Intermediate Latin II                                                                                  |           |
| LATN 311                                                                                                            | Major Latin Authors                                                                                    |           |
| PHL 261Y                                                                                                            | History of Ancient Philosophy                                                                          |           |
| <b>Total Hours</b>                                                                                                  |                                                                                                        | <b>39</b> |

Four Year Plan

| Course                         | Title                                         | Hours |
|--------------------------------|-----------------------------------------------|-------|
| <b>Freshman</b>                |                                               |       |
| <b>Autumn</b>                  |                                               |       |
| LATN 101                       | Elementary Latin I                            | 3     |
| WRIT 101                       | College Writing I                             | 4     |
| Math Requirement               |                                               | 3     |
| General Education Requirement  |                                               | 3     |
| HUSC 194                       | Seminar/Workshop                              | 1     |
| Activity                       |                                               | 1     |
| Hours                          |                                               | 15    |
| <b>Spring</b>                  |                                               |       |
| LATN 102                       | Elementary Latin II                           | 3     |
| General Education Requirements |                                               | 12    |
| Activity                       |                                               | 1     |
| Hours                          |                                               | 16    |
| <b>Sophomore</b>               |                                               |       |
| <b>Autumn</b>                  |                                               |       |
| LATN 201                       | Intermediate Latin I                          | 3     |
| CLAS 251L<br>or CLAS 252L      | The Epic<br>or Greek Drama: Politics on Stage | 3     |
| CLAS 160L                      | Classical Mythology                           | 3     |
| General Education Requirements |                                               | 6     |
| Hours                          |                                               | 15    |
| <b>Spring</b>                  |                                               |       |
| LATN 202                       | Intermediate Latin II                         | 3     |
| HSTR 302H<br>or HSTR 304H      | Ancient Greece<br>or Ancient Rome             | 3     |
| General Education Requirements |                                               | 6     |
| Elective                       |                                               | 3     |
| Hours                          |                                               | 15    |
| <b>Junior</b>                  |                                               |       |
| <b>Autumn</b>                  |                                               |       |
| Classic Language Electives     |                                               | 6     |
| Upper Division Electives       |                                               | 9     |
| Hours                          |                                               | 15    |
| <b>Spring</b>                  |                                               |       |
| Classic Language Elective      |                                               | 3     |
| Upper Division Electives       |                                               | 9     |
| General Education Requirement  |                                               | 3     |
| Hours                          |                                               | 15    |
| <b>Senior</b>                  |                                               |       |
| <b>Autumn</b>                  |                                               |       |
| CLAS 399                       | Capstone                                      | 3     |
| Classic Language Elective      |                                               | 3     |
| Upper Division Electives       |                                               | 9     |
| Hours                          |                                               | 15    |
| <b>Spring</b>                  |                                               |       |
| Classic Language Elective      |                                               | 3     |
| Upper Division Electives       |                                               | 12    |
| Hours                          |                                               | 15    |
| Total Hours                    |                                               | 121   |

Last updated Autumn 2024

Classics B.A. - Latin Concentration

General Degree Requirements

To earn a baccalaureate degree, all students must complete successfully, in addition to any other requirements, the University of Montana

General Education Requirements. Please refer to the General Education Requirements page (p. 39) for more information.

Additional requirements for graduation can be found on the Degree/ Certificate Requirements for Graduation page (p. 36).

Unless otherwise noted in individual program requirements, a minimum grade point average of 2.00 in all work attempted at the University of Montana-Missoula is required for graduation. Please see the Academic Policies and Procedures page (p. 25) for information on how your GPA is calculated.

Courses taken to satisfy the requirements of a major, minor, or certificate program must be completed with a grade of C- or better unless a higher grade is noted in the program requirements.

Bachelor of Arts - Classics; Latin Concentration

- This major requires a cumulative institutional GPA of 2.5.

Course Requirements

| Code                                           | Title                                         | Hours |
|------------------------------------------------|-----------------------------------------------|-------|
| <b>Classics Core Courses</b>                   |                                               |       |
| Complete all of the following courses:         |                                               |       |
| CLAS 160L                                      | Classical Mythology                           | 3     |
| CLAS 251L<br>or CLAS 252L                      | The Epic<br>Greek Drama: Politics on Stage    | 3     |
| CLAS 399                                       | Capstone                                      | 3     |
| HSTR 304H                                      | Ancient Rome                                  | 3     |
| <b>Language Requirement</b>                    |                                               |       |
| Complete all of the following courses:         |                                               |       |
| LATN 101                                       | Elementary Latin I                            | 3     |
| LATN 102                                       | Elementary Latin II                           | 3     |
| LATN 201                                       | Intermediate Latin I                          | 3     |
| LATN 202                                       | Intermediate Latin II                         | 3     |
| <b>Advanced Latin Language</b>                 |                                               |       |
| Complete 9 credits of the following courses:   |                                               | 9     |
| LATN 311                                       | Major Latin Authors                           |       |
| LATN 391                                       | Special Topics                                |       |
| LATN 392                                       | Independent Study                             |       |
| LATN 492                                       | Independent Study                             |       |
| <b>Electives</b>                               |                                               |       |
| Complete 6 credits from the following courses: |                                               | 6     |
| CLAS 360H                                      | Ancient Greek Civilization and Culture        |       |
| HSTR 211L                                      | Early Christianity                            |       |
| HSTR 302H                                      | Ancient Greece                                |       |
| HSTR 303                                       | Alexander the Great and the Hellenistic World |       |
| HSTR 309                                       | The First Historians                          |       |
| HSTR 314                                       | Origins of Western Religion                   |       |
| HSTR 321                                       | The Roman Empire                              |       |
| HSTR 351                                       | Democracy: Ancient to Modern                  |       |
| HSTR 365                                       | History of the Ancient Near East              |       |
| PHL 261Y                                       | History of Ancient Philosophy                 |       |
| PHL 465                                        | Plato                                         |       |



|                    |                              |
|--------------------|------------------------------|
| PHL 466            | Aristotle                    |
| WLC 410            | Methods of Language Teaching |
| <hr/>              |                              |
| <b>Total Hours</b> | <b>39</b>                    |

## Four Year Plan

| Course                         | Title                                         | Hours          |
|--------------------------------|-----------------------------------------------|----------------|
| <b>Freshman</b>                |                                               |                |
| <b>Autumn</b>                  |                                               |                |
| LATN 101                       | Elementary Latin I                            | 3              |
| WRIT 101                       | College Writing I                             | 4              |
| Math Requirement               |                                               | 3              |
| General Education Requirement  |                                               | 3              |
| HUSC 194                       | Seminar/Workshop                              | 1              |
| Activity                       |                                               | 1              |
| <b>Hours</b>                   |                                               | <b>15</b>      |
| <b>Spring</b>                  |                                               |                |
| LATN 102                       | Elementary Latin II                           | 3              |
| General Education Requirements |                                               | 12             |
| Activity                       |                                               | 1              |
| <b>Hours</b>                   |                                               | <b>16</b>      |
| <b>Sophomore</b>               |                                               |                |
| <b>Autumn</b>                  |                                               |                |
| LATN 201                       | Intermediate Latin I                          | 3              |
| CLAS 251L<br>or CLAS 252L      | The Epic<br>or Greek Drama: Politics on Stage | 3              |
| CLAS 160L                      | Classical Mythology                           | 3              |
| General Education Requirement  |                                               | 6              |
| <b>Hours</b>                   |                                               | <b>15</b>      |
| <b>Spring</b>                  |                                               |                |
| LATN 202                       | Intermediate Latin II                         | 3              |
| HSTR 304H                      | Ancient Rome                                  | 3              |
| LATN 311                       | Major Latin Authors                           | 3              |
| General Education Requirement  |                                               | 6              |
| <b>Hours</b>                   |                                               | <b>15</b>      |
| <b>Junior</b>                  |                                               |                |
| <b>Autumn</b>                  |                                               |                |
| LATN 191                       | Special Topics                                | 1-6            |
| Latin Major Elective           |                                               | 3              |
| Upper Division Elective        |                                               | 3              |
| <b>Hours</b>                   |                                               | <b>7-12</b>    |
| <b>Spring</b>                  |                                               |                |
| LATN 392                       | Independent Study                             | 1-6            |
| Latin Major Elective           |                                               | 3              |
| Upper Division Elective        |                                               | 9              |
| <b>Hours</b>                   |                                               | <b>13-18</b>   |
| <b>Senior</b>                  |                                               |                |
| <b>Autumn</b>                  |                                               |                |
| CLAS 399                       | Capstone                                      | 3              |
| LATN 492                       | Independent Study                             | 1-12           |
| Upper Division Elective        |                                               | 9              |
| <b>Hours</b>                   |                                               | <b>13-24</b>   |
| <b>Spring</b>                  |                                               |                |
| Upper Division Elective        |                                               | 12             |
| General Education Requirement  |                                               | 3              |
| <b>Hours</b>                   |                                               | <b>15</b>      |
| <b>Total Hours</b>             |                                               | <b>109-130</b> |

*Last updated Autumn 2024*

## Classics B.A. - Latin Language Education

- This major concentration contains course requirements designed to meet state standards. Those interested in teaching in K-12 schools must complete the education/teaching concentration of a major in a teaching content area plus the Teacher Education Program through the Department of Teaching and Learning. Additional teaching areas can be added through completion of the education/teaching concentration of a major or education/teaching minor in that content area.
  - Secondary Education Licensure Program (<https://www.umt.edu/education/departments/teaching-and-learning/tep/default.php>)
  - Licensure Degree Requirements (p. 151)
- To complete this concentration, you need to contact the Teaching and Learning Department. Approvals for this track must come from the Teaching and Learning Department.
- This major does not qualify as a single field endorsement. Individuals must complete the education/teaching concentration in a second major or education/teaching minor in another content area.

## General Degree Requirements

To earn a baccalaureate degree, all students must complete successfully, in addition to any other requirements, the University of Montana General Education Requirements. Please refer to the General Education Requirements page (p. 39) for more information.

Additional requirements for graduation can be found on the Degree/Certificate Requirements for Graduation page (p. 36).

Unless otherwise noted in individual program requirements, a minimum grade point average of 2.00 in all work attempted at the University of Montana-Missoula is required for graduation. Please see the Academic Policies and Procedures page (p. 25) for information on how your GPA is calculated.

Courses taken to satisfy the requirements of a major, minor, or certificate program must be completed with a grade of C- or better unless a higher grade is noted in the program requirements.

## Bachelor of Arts - Classics; Latin Language Education Concentration

- This major requires a cumulative institutional GPA of 2.5.

### Course Requirements

| Code                                   | Title                                      | Hours |
|----------------------------------------|--------------------------------------------|-------|
| <b>Classics Core Courses</b>           |                                            |       |
| Complete all of the following courses: |                                            |       |
| CLAS 160L                              | Classical Mythology                        | 3     |
| CLAS 251L<br>or CLAS 252L              | The Epic<br>Greek Drama: Politics on Stage | 3     |
| CLAS 399                               | Capstone                                   | 3     |
| HSTR 304H                              | Ancient Rome                               | 3     |
| <b>Language Requirement</b>            |                                            |       |
| Complete all of the following courses: |                                            |       |
| LATN 101                               | Elementary Latin I                         | 3     |
| LATN 102                               | Elementary Latin II                        | 3     |

|                                                |                                               |           |
|------------------------------------------------|-----------------------------------------------|-----------|
| LATN 201                                       | Intermediate Latin I                          | 3         |
| LATN 202                                       | Intermediate Latin II                         | 3         |
| <b>Advanced Latin Language</b>                 |                                               |           |
| Complete 9 credits of the following courses:   |                                               | 9         |
| LATN 311                                       | Major Latin Authors                           |           |
| LATN 391                                       | Special Topics                                |           |
| LATN 392                                       | Independent Study                             |           |
| LATN 492                                       | Independent Study                             |           |
| <b>Electives</b>                               |                                               |           |
| Complete 6 credits from the following courses: |                                               | 6         |
| CLAS 360H                                      | Ancient Greek Civilization and Culture        |           |
| HSTR 211L                                      | Early Christianity                            |           |
| HSTR 302H                                      | Ancient Greece                                |           |
| HSTR 303                                       | Alexander the Great and the Hellenistic World |           |
| HSTR 309                                       | The First Historians                          |           |
| HSTR 314                                       | Origins of Western Religion                   |           |
| HSTR 321                                       | The Roman Empire                              |           |
| HSTR 351                                       | Democracy: Ancient to Modern                  |           |
| HSTR 365                                       | History of the Ancient Near East              |           |
| PHL 261Y                                       | History of Ancient Philosophy                 |           |
| PHL 465                                        | Plato                                         |           |
| PHL 466                                        | Aristotle                                     |           |
| <b>Teaching Methods</b>                        |                                               |           |
| Complete the following course:                 |                                               |           |
| WLC 410                                        | Methods of Language Teaching                  | 3         |
| <b>Total Hours</b>                             |                                               | <b>42</b> |

## Secondary Teaching Licensure

For endorsement to teach this subject, a student also must gain admission to the Teacher Education Program and meet all the requirements for secondary teaching licensure (p. 151). For more information, see the Teaching and Learning Department webpage (<https://www.umt.edu/education/departments/currinst/default.php>).

## European Studies Minor

### General Degree Requirements

To earn a baccalaureate degree, all students must complete successfully, in addition to any other requirements, the University of Montana General Education Requirements. Please refer to the General Education Requirements page (p. 39) for more information.

Additional requirements for graduation can be found on the Degree/Certificate Requirements for Graduation page (p. 36).

Unless otherwise noted in individual program requirements, a minimum grade point average of 2.00 in all work attempted at the University of Montana-Missoula is required for graduation. Please see the Academic Policies and Procedures page (p. 25) for information on how your GPA is calculated.

Courses taken to satisfy the requirements of a major, minor, or certificate program must be completed with a grade of C- or better unless a higher grade is noted in the program requirements.

## Minor - European Studies

### Course Requirements

| Code                                                                                                                                                    | Title                                                            | Hours |
|---------------------------------------------------------------------------------------------------------------------------------------------------------|------------------------------------------------------------------|-------|
| <b>Core Course</b>                                                                                                                                      |                                                                  |       |
| Complete the following course:                                                                                                                          |                                                                  |       |
| WLC 110                                                                                                                                                 | Introduction to European Studies                                 | 3     |
| <b>Language Requirement</b>                                                                                                                             |                                                                  |       |
| Complete the 101-202 language sequence of one of the following languages:                                                                               |                                                                  | 12-16 |
| Ancient Greek (GRK)                                                                                                                                     |                                                                  |       |
| French (FRCH)                                                                                                                                           |                                                                  |       |
| German (GRMN)                                                                                                                                           |                                                                  |       |
| Latin (LATN)                                                                                                                                            |                                                                  |       |
| Russian (RUSS)                                                                                                                                          |                                                                  |       |
| Spanish (SPNS)                                                                                                                                          |                                                                  |       |
| <b>Upper-Division Electives <sup>1</sup></b>                                                                                                            |                                                                  |       |
| Complete six of the following courses (at least three courses must come from two different disciplines offered outside of the student's primary major): |                                                                  | 18    |
| <b>English</b>                                                                                                                                          |                                                                  |       |
| FILM 320                                                                                                                                                | Shakespeare and Film                                             |       |
| LIT 327L                                                                                                                                                | Shakespeare                                                      |       |
| LIT 350L                                                                                                                                                | Chaucer                                                          |       |
| LIT 353L                                                                                                                                                | Milton                                                           |       |
| LIT 355                                                                                                                                                 | British Romanticism                                              |       |
| <b>World Languages &amp; Literatures</b>                                                                                                                |                                                                  |       |
| CLAS 360H                                                                                                                                               | Ancient Greek Civilization and Culture                           |       |
| FRCH 310                                                                                                                                                | French Literature and Culture: Middle Ages and Renaissance       |       |
| FRCH 311                                                                                                                                                | French Literature and Culture: 17th Century                      |       |
| FRCH 312                                                                                                                                                | French Literature and Culture: 19th Century                      |       |
| FRCH 313                                                                                                                                                | French Literature and Culture: 20th Century                      |       |
| FRCH 338                                                                                                                                                | The French Cinema                                                |       |
| FRCH 350                                                                                                                                                | French Civilization & Culture                                    |       |
| FRCH 420                                                                                                                                                | Studies in French Prose                                          |       |
| FRCH 430                                                                                                                                                | Studies in French Drama                                          |       |
| GRMN 317L                                                                                                                                               | Introduction to Multicultural Literature in Contemporary Germany |       |
| GRMN 322L                                                                                                                                               | Survey of German Cinema                                          |       |
| GRMN 340L                                                                                                                                               | Nature and the Environment in German Literature and Film         |       |
| GRMN 351H                                                                                                                                               | German Culture: Beginnings to Romanticism                        |       |
| GRMN 352H                                                                                                                                               | Germ Culture: Romanticism to the Present                         |       |
| GRMN 431                                                                                                                                                | German Literature 1760-1832                                      |       |
| GRMN 441                                                                                                                                                | 19th Century German Literature                                   |       |
| GRMN 451                                                                                                                                                | 20th and 21st Century German Literature                          |       |
| RUSS 306L                                                                                                                                               | Evil and the Supernatural in Russian Literature                  |       |
| RUSS 307L                                                                                                                                               | Beauty, Power and Pride in Russian Literature                    |       |
| RUSS 411                                                                                                                                                | 19th-Century Russian Authors                                     |       |

|                         |                                                            |
|-------------------------|------------------------------------------------------------|
| RUSS 412                | 20th-Century Russian Authors                               |
| RUSS 424                | Russian Short Story                                        |
| RUSS 440                | Russian Poetry                                             |
| RUSS 494                | Seminar in Russian Studies                                 |
| SPNS 326                | Contemporary Spanish Lit                                   |
| SPNS 465                | Spanish Literature: Renaissance and Golden Age             |
| SPNS 466                | Spanish Literature: Modern & Contemporary                  |
| <b>European History</b> |                                                            |
| HSTR 323                | European Social and Intellectual History: The 19th Century |
| HSTR 325                | European Social and Intellectual History: The 20th Century |
| HSTR 326                | Contemporary Europe                                        |
| HSTR 348                | Britain 1485-1688                                          |
| HSTR 349                | Britain from Revolution to Reform 1688                     |
| HSTR 350                | Modern Britain                                             |
| HSTR 354                | Italy: 1300-1800                                           |
| HSTR 355                | Italy: 1800-Present                                        |
| HSTR 357                | Russia to 1881                                             |
| HSTR 358                | Russia Since 1881                                          |
| HSTR 363                | Eastern Europe                                             |
| <b>Music</b>            |                                                            |
| MUSI 301H               | Music History I                                            |
| MUSI 302H               | Music History II                                           |
| <b>Art History</b>      |                                                            |
| ARTH 440                | 20th Century Art                                           |
| <b>Total Hours</b>      |                                                            |
| <b>33-37</b>            |                                                            |

<sup>1</sup> Two lower-division courses in a second European language may be substituted for two of the six required upper-division courses, subject to advisor approval.

## French B.A.

### General Degree Requirements

To earn a baccalaureate degree, all students must complete successfully, in addition to any other requirements, the University of Montana General Education Requirements. Please refer to the General Education Requirements page (p. 39) for more information.

Additional requirements for graduation can be found on the Degree/Certificate Requirements for Graduation page (p. 36).

Unless otherwise noted in individual program requirements, a minimum grade point average of 2.00 in all work attempted at the University of Montana-Missoula is required for graduation. Please see the Academic Policies and Procedures page (p. 25) for information on how your GPA is calculated.

Courses taken to satisfy the requirements of a major, minor, or certificate program must be completed with a grade of C- or better unless a higher grade is noted in the program requirements.

## Bachelor of Arts - French

- Students are required to maintain a minimum overall GPA of 2.5 in all upper-division French courses presented in fulfillment of requirements for the French major.
- Students must complete a minimum of 30 upper-division credits in French (FRCH).
- A minimum of twelve upper-division credits for the major must be taken from UM faculty on the UM campus.

### Course Requirements

| Code                                           | Title                                                      | Hours     |
|------------------------------------------------|------------------------------------------------------------|-----------|
| <b>Core Courses</b>                            |                                                            |           |
| Complete all of the following courses:         |                                                            |           |
| FRCH 101                                       | Elementary French I                                        | 4         |
| FRCH 102                                       | Elementary French II                                       | 4         |
| FRCH 201                                       | Intermediate French I                                      | 4         |
| FRCH 202                                       | Intermediate French II                                     | 4         |
| FRCH 301                                       | Advanced Grammar/Oral and Written Expression               | 3         |
| FRCH 350                                       | French Civilization & Culture                              | 3         |
| FRCH 421                                       | Advanced Stylistics & Oral Arguments                       | 3         |
| <b>300-level Electives</b>                     |                                                            |           |
| Complete four of the following courses:        |                                                            | 12        |
| FRCH 310                                       | French Literature and Culture: Middle Ages and Renaissance |           |
| FRCH 311                                       | French Literature and Culture: 17th Century                |           |
| FRCH 312                                       | French Literature and Culture: 19th Century                |           |
| FRCH 313                                       | French Literature and Culture: 20th Century                |           |
| FRCH 314                                       | French Literature and Culture: 18th Century                |           |
| FRCH 315                                       | Literature and Culture of the Francophone World            |           |
| FRCH 338                                       | The French Cinema                                          |           |
| FRCH 339                                       | Survey of African Cinema                                   |           |
| FRCH 391                                       | Special Topics                                             |           |
| <b>400-level Electives</b>                     |                                                            |           |
| Complete 6 credits from the following courses: |                                                            | 6         |
| FRCH 420                                       | Studies in French Prose                                    |           |
| FRCH 430                                       | Studies in French Drama                                    |           |
| FRCH 491                                       | Special Topics                                             |           |
| FRCH 494                                       | Seminar/Workshop                                           |           |
| <b>Total Hours</b>                             |                                                            | <b>43</b> |

## Four Year Plan

6 upper-division credits must be at 400 level. Minimum of 12 upper-division credits must be taken at UM.

| Course           | Title                               | Hours |
|------------------|-------------------------------------|-------|
| <b>Freshman</b>  |                                     |       |
| <b>Autumn</b>    |                                     |       |
| FRCH 101         | Elementary French I                 | 4     |
| WRIT 101         | College Writing I                   | 4     |
| HUSC 194         | Seminar/Workshop (Suggested course) | 1     |
| Math requirement |                                     | 3     |

|                                                       |                                                                                                                                                                                                                  |            |
|-------------------------------------------------------|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|------------|
| General Education Requirement                         |                                                                                                                                                                                                                  | 3          |
| <b>Hours</b>                                          |                                                                                                                                                                                                                  | <b>15</b>  |
| <b>Spring</b>                                         |                                                                                                                                                                                                                  |            |
| FRCH 102                                              | Elementary French II                                                                                                                                                                                             | 4          |
| General Education Requirement                         |                                                                                                                                                                                                                  | 9          |
| Activity (Suggested course)                           |                                                                                                                                                                                                                  | 1          |
| <b>Hours</b>                                          |                                                                                                                                                                                                                  | <b>14</b>  |
| <b>Sophomore</b>                                      |                                                                                                                                                                                                                  |            |
| <b>Autumn</b>                                         |                                                                                                                                                                                                                  |            |
| FRCH 201                                              | Intermediate French I                                                                                                                                                                                            | 4          |
| General Education Requirement                         |                                                                                                                                                                                                                  | 9          |
| Elective                                              |                                                                                                                                                                                                                  | 3          |
| <b>Hours</b>                                          |                                                                                                                                                                                                                  | <b>16</b>  |
| <b>Spring</b>                                         |                                                                                                                                                                                                                  |            |
| FRCH 202                                              | Intermediate French II                                                                                                                                                                                           | 4          |
| General Education Requirement                         |                                                                                                                                                                                                                  | 9          |
| Elective                                              |                                                                                                                                                                                                                  | 3          |
| <b>Hours</b>                                          |                                                                                                                                                                                                                  | <b>16</b>  |
| <b>Junior</b>                                         |                                                                                                                                                                                                                  |            |
| <b>Autumn</b>                                         |                                                                                                                                                                                                                  |            |
| FRCH 301                                              | Advanced Grammar/Oral and Written Expression                                                                                                                                                                     | 3          |
| FRCH 310<br>or FRCH 311<br>or FRCH 312<br>or FRCH 313 | French Literature and Culture: Middle Ages and Renaissance<br>or French Literature and Culture: 17th Century<br>or French Literature and Culture: 19th Century<br>or French Literature and Culture: 20th Century | 3          |
| Elective                                              |                                                                                                                                                                                                                  | 9          |
| <b>Hours</b>                                          |                                                                                                                                                                                                                  | <b>15</b>  |
| <b>Spring</b>                                         |                                                                                                                                                                                                                  |            |
| FRCH 350                                              | French Civilization & Culture                                                                                                                                                                                    | 3          |
| FRCH 338<br>or FRCH 339                               | The French Cinema<br>or Survey of African Cinema                                                                                                                                                                 | 3          |
| Elective                                              |                                                                                                                                                                                                                  | 9          |
| <b>Hours</b>                                          |                                                                                                                                                                                                                  | <b>15</b>  |
| <b>Senior</b>                                         |                                                                                                                                                                                                                  |            |
| <b>Autumn</b>                                         |                                                                                                                                                                                                                  |            |
| FRCH 311<br>or FRCH 310<br>or FRCH 312<br>or FRCH 313 | French Literature and Culture: 17th Century<br>or French Literature and Culture: Middle Ages and Renaissance<br>or French Literature and Culture: 19th Century<br>or French Literature and Culture: 20th Century | 3          |
| FRCH 420<br>or FRCH 430<br>or FRCH 491<br>or FRCH 494 | Studies in French Prose<br>or Studies in French Drama<br>or Special Topics<br>or Seminar/Workshop                                                                                                                | 3          |
| Elective                                              |                                                                                                                                                                                                                  | 9          |
| <b>Hours</b>                                          |                                                                                                                                                                                                                  | <b>15</b>  |
| <b>Spring</b>                                         |                                                                                                                                                                                                                  |            |
| FRCH 421                                              | Advanced Stylistics & Oral Arguments                                                                                                                                                                             | 3          |
| FRCH 339<br>or FRCH 338                               | Survey of African Cinema<br>or The French Cinema                                                                                                                                                                 | 3          |
| Elective                                              |                                                                                                                                                                                                                  | 9          |
| <b>Hours</b>                                          |                                                                                                                                                                                                                  | <b>15</b>  |
| <b>Total Hours</b>                                    |                                                                                                                                                                                                                  | <b>121</b> |

Last updated Autumn 2024

## French B.A. - French Language Education

- This concentration contains course requirements designed to meet state standards. Those interested in teaching in K-12 schools must complete the education/teaching concentration of a major in a

teaching content area plus the Teacher Education Program through the Department of Teaching and Learning. Additional teaching areas can be added through completion of the education/teaching concentration of a major or education/teaching minor in that content area.

- Secondary Education Licensure Program (<https://www.umt.edu/education/departments/teaching-and-learning/tep/default.php>)
- Licensure Degree Requirements (p. 151)
- To complete this concentration, you need to contact the Teaching and Learning Department. Approvals for this concentration must come from the Teaching and Learning Department.
- French qualifies for a single field endorsement. However, there is a limited demand in the majority of Montana high schools for teachers with a single endorsement in French. Students should complete the requirements for a second teaching endorsement in another field in more demand in high schools.
- Study in a French speaking country, provided either through the university's Study Abroad Program or an experience considered to be equivalent, also is required.

## General Degree Requirements

To earn a baccalaureate degree, all students must complete successfully, in addition to any other requirements, the University of Montana General Education Requirements. Please refer to the General Education Requirements page (p. 39) for more information.

Additional requirements for graduation can be found on the Degree/Certificate Requirements for Graduation page (p. 36).

Unless otherwise noted in individual program requirements, a minimum grade point average of 2.00 in all work attempted at the University of Montana-Missoula is required for graduation. Please see the Academic Policies and Procedures page (p. 25) for information on how your GPA is calculated.

Courses taken to satisfy the requirements of a major, minor, or certificate program must be completed with a grade of C- or better unless a higher grade is noted in the program requirements.

## Bachelor of Arts - French; French Language Education Concentration

- Students are required to maintain a minimum overall GPA of 2.5 in all upper-division French courses presented in fulfillment of requirements for the French major.
- Students must complete a minimum of 30 upper-division credits in French (FRCH).
- A minimum of twelve upper-division credits for the major must be taken from UM faculty on the UM campus.

## Course Requirements

| Code                                   | Title                  | Hours |
|----------------------------------------|------------------------|-------|
| <b>Core Courses</b>                    |                        |       |
| Complete all of the following courses: |                        |       |
| FRCH 101                               | Elementary French I    | 4     |
| FRCH 102                               | Elementary French II   | 4     |
| FRCH 201                               | Intermediate French I  | 4     |
| FRCH 202                               | Intermediate French II | 4     |

|                                                |                                                            |           |
|------------------------------------------------|------------------------------------------------------------|-----------|
| FRCH 301                                       | Advanced Grammar/Oral and Written Expression               | 3         |
| FRCH 350                                       | French Civilization & Culture                              | 3         |
| FRCH 421                                       | Advanced Stylistics & Oral Arguments                       | 3         |
| <b>300-level Electives</b>                     |                                                            |           |
| Complete four of the following courses:        |                                                            | 12        |
| FRCH 310                                       | French Literature and Culture: Middle Ages and Renaissance |           |
| FRCH 311                                       | French Literature and Culture: 17th Century                |           |
| FRCH 312                                       | French Literature and Culture: 19th Century                |           |
| FRCH 313                                       | French Literature and Culture: 20th Century                |           |
| FRCH 338                                       | The French Cinema                                          |           |
| FRCH 339                                       | Survey of African Cinema                                   |           |
| <b>400-level Electives</b>                     |                                                            |           |
| Complete 6 credits from the following courses: |                                                            | 6         |
| FRCH 420                                       | Studies in French Prose                                    |           |
| FRCH 430                                       | Studies in French Drama                                    |           |
| FRCH 491                                       | Special Topics                                             |           |
| FRCH 494                                       | Seminar/Workshop                                           |           |
| <b>French Language Education Requirements</b>  |                                                            |           |
| Complete all of the following courses:         |                                                            |           |
| LING 270S                                      | Intro to Linguistics                                       | 3         |
| WLC 410                                        | Methods of Language Teaching                               | 3         |
| <b>Total Hours</b>                             |                                                            | <b>49</b> |

## Secondary Teaching Licensure

For endorsement to teach this subject, a student also must gain admission to the Teacher Education Program and meet all the requirements for secondary teaching licensure (p. 151). For more information, see the Teaching and Learning Department webpage (<https://www.umt.edu/education/departments/currinst/default.php>).

## French Minor

### General Degree Requirements

To earn a baccalaureate degree, all students must complete successfully, in addition to any other requirements, the University of Montana General Education Requirements. Please refer to the General Education Requirements page (p. 39) for more information.

Additional requirements for graduation can be found on the Degree/Certificate Requirements for Graduation page (p. 36).

Unless otherwise noted in individual program requirements, a minimum grade point average of 2.00 in all work attempted at the University of Montana-Missoula is required for graduation. Please see the Academic Policies and Procedures page (p. 25) for information on how your GPA is calculated.

Courses taken to satisfy the requirements of a major, minor, or certificate program must be completed with a grade of C- or better unless a higher grade is noted in the program requirements.

## Minor - French

- FRCH 101-FRCH 202, or equivalent, are prerequisites to the minor in French.

- A minimum of six upper-division credits for the minor must be taken from UM faculty on the UM campus.

## Course Requirements

| Code                                           | Title                                                      | Hours     |
|------------------------------------------------|------------------------------------------------------------|-----------|
| <b>Core Courses</b>                            |                                                            |           |
| Complete all of the following courses:         |                                                            |           |
| FRCH 301                                       | Advanced Grammar/Oral and Written Expression               | 3         |
| FRCH 350                                       | French Civilization & Culture                              | 3         |
| <b>300-Level Electives</b>                     |                                                            |           |
| Complete two of the following courses:         |                                                            | 6         |
| FRCH 310                                       | French Literature and Culture: Middle Ages and Renaissance |           |
| FRCH 311                                       | French Literature and Culture: 17th Century                |           |
| FRCH 312                                       | French Literature and Culture: 19th Century                |           |
| FRCH 313                                       | French Literature and Culture: 20th Century                |           |
| FRCH 338                                       | The French Cinema                                          |           |
| <b>400-Level Electives</b>                     |                                                            |           |
| Complete 3 credits from the following courses: |                                                            | 3         |
| FRCH 420                                       | Studies in French Prose                                    |           |
| FRCH 421                                       | Advanced Stylistics & Oral Arguments                       |           |
| FRCH 430                                       | Studies in French Drama                                    |           |
| FRCH 491                                       | Special Topics                                             |           |
| FRCH 492                                       | Independent Study                                          |           |
| FRCH 494                                       | Seminar/Workshop                                           |           |
| <b>Total Hours</b>                             |                                                            | <b>15</b> |

## French Language Education Minor

- This minor contains course requirements designed to meet state standards. Those interested in teaching in K-12 schools must complete the education/teaching concentration of a major in a teaching content area plus the Teacher Education Program through the Department of Teaching and Learning. Additional teaching areas can be added through completion of the education/teaching concentration of a major or education/teaching minor in that content area.
  - Secondary Education Licensure Program (<http://www.coehs.umt.edu/departments/currinst/undergradprograms/seced/default.php>)
  - Licensure Degree Requirements (p. 151)
- To complete this minor, you need to contact the Teaching and Learning Department. Approvals for this minor must come from the Teaching and Learning Department.
- Individuals completing this minor must also complete the education/teaching concentration of a major in another teaching content area.

## General Degree Requirements

To earn a baccalaureate degree, all students must complete successfully, in addition to any other requirements, the University of Montana General Education Requirements. Please refer to the General Education Requirements page (p. 39) for more information.

Additional requirements for graduation can be found on the Degree/Certificate Requirements for Graduation page (p. 36).



Unless otherwise noted in individual program requirements, a minimum grade point average of 2.00 in all work attempted at the University of Montana-Missoula is required for graduation. Please see the Academic Policies and Procedures page (p. 25) for information on how your GPA is calculated.

Courses taken to satisfy the requirements of a major, minor, or certificate program must be completed with a grade of C- or better unless a higher grade is noted in the program requirements.

## Minor - French Language Education

- FRCH 101-FRCH 202, or equivalent, are prerequisites to the minor in French Language Education.
- A minimum of six upper-division credits for the minor must be taken from UM faculty on the UM campus.

### Course Requirements

| Code                                           | Title                                                      | Hours     |
|------------------------------------------------|------------------------------------------------------------|-----------|
| <b>Complete all of the following courses:</b>  |                                                            |           |
| FRCH 301                                       | Advanced Grammar/Oral and Written Expression               | 3         |
| FRCH 350                                       | French Civilization & Culture                              | 3         |
| <b>300-Level Electives</b>                     |                                                            |           |
| Complete two of the following courses:         |                                                            | 6         |
| FRCH 310                                       | French Literature and Culture: Middle Ages and Renaissance |           |
| FRCH 311                                       | French Literature and Culture: 17th Century                |           |
| FRCH 312                                       | French Literature and Culture: 19th Century                |           |
| FRCH 313                                       | French Literature and Culture: 20th Century                |           |
| FRCH 338                                       | The French Cinema                                          |           |
| <b>400-Level Electives</b>                     |                                                            |           |
| Complete 3 credits from the following courses: |                                                            | 3         |
| FRCH 420                                       | Studies in French Prose                                    |           |
| FRCH 421                                       | Advanced Stylistics & Oral Arguments                       |           |
| FRCH 430                                       | Studies in French Drama                                    |           |
| FRCH 491                                       | Special Topics                                             |           |
| FRCH 492                                       | Independent Study                                          |           |
| FRCH 494                                       | Seminar/Workshop                                           |           |
| <b>French Language Education Requirements</b>  |                                                            |           |
| Complete all of the following courses:         |                                                            |           |
| LING 270S                                      | Intro to Linguistics                                       | 3         |
| WLC 410                                        | Methods of Language Teaching                               | 3         |
| <b>Total Hours</b>                             |                                                            | <b>21</b> |

## German B.A.

### General Degree Requirements

To earn a baccalaureate degree, all students must complete successfully, in addition to any other requirements, the University of Montana General Education Requirements. Please refer to the General Education Requirements page (p. 39) for more information.

Additional requirements for graduation can be found on the Degree/Certificate Requirements for Graduation page (p. 36).

Unless otherwise noted in individual program requirements, a minimum grade point average of 2.00 in all work attempted at the University of Montana-Missoula is required for graduation. Please see the Academic Policies and Procedures page (p. 25) for information on how your GPA is calculated.

Courses taken to satisfy the requirements of a major, minor, or certificate program must be completed with a grade of C- or better unless a higher grade is noted in the program requirements.

## Bachelor of Arts - German

- Students are required to maintain a minimum overall GPA of 2.5 in all upper-division GRMN courses presented in fulfillment of requirements for the German major.

### Course Requirements

| Code                                                               | Title                                                            | Hours     |
|--------------------------------------------------------------------|------------------------------------------------------------------|-----------|
| <b>Language Core</b>                                               |                                                                  |           |
| Complete all of the following courses:                             |                                                                  |           |
| GRMN 101                                                           | Elementary German I                                              | 4         |
| GRMN 102                                                           | Elementary German II                                             | 4         |
| GRMN 201                                                           | Intermediate German I                                            | 4         |
| GRMN 202                                                           | Intermediate German II                                           | 4         |
| <b>Upper-Division Core Courses</b>                                 |                                                                  |           |
| Complete all of the following courses:                             |                                                                  |           |
| GRMN 301                                                           | Studies in German Language, Media, and Culture I                 | 3         |
| GRMN 302                                                           | Studies in German Language, Media, and Culture II                | 3         |
| GRMN 311                                                           | Introduction to German Literature                                | 3         |
| GRMN 313                                                           | German Narratives in Literature and Film                         | 3         |
| Complete one of the following courses:                             |                                                                  | 3         |
| GRMN 441                                                           | 19th Century German Literature                                   |           |
| GRMN 451                                                           | 20th and 21st Century German Literature                          |           |
| GRMN 491                                                           | Special Topics                                                   |           |
| <b>German Culture, Film, and Literature Electives <sup>1</sup></b> |                                                                  |           |
| Complete three of the following courses:                           |                                                                  | 9         |
| GRMN 317L                                                          | Introduction to Multicultural Literature in Contemporary Germany |           |
| GRMN 322L                                                          | Survey of German Cinema                                          |           |
| GRMN 340L                                                          | Nature and the Environment in German Literature and Film         |           |
| GRMN 350                                                           | German Culture & Civilization                                    |           |
| GRMN 351H                                                          | German Culture: Beginnings to Romanticism                        |           |
| GRMN 352H                                                          | Germ Culture: Romanticism to the Present                         |           |
| <b>Total Hours</b>                                                 |                                                                  | <b>40</b> |

<sup>1</sup> The advanced writing expectation must be met by successfully completing either GRMN 351H or GRMN 352H.

## Four Year Plan

| Course                           | Title                                            | Hours      |
|----------------------------------|--------------------------------------------------|------------|
| <b>Freshman</b>                  |                                                  |            |
| <b>Autumn</b>                    |                                                  |            |
| GRMN 101                         | Elementary German I                              | 4          |
| WRIT 101                         | College Writing I                                | 4          |
| Math Requirement                 |                                                  | 3          |
| General Education Requirement    |                                                  | 3          |
| HUSC 194                         | Seminar/Workshop                                 | 1          |
| Activity                         |                                                  | 1          |
| <b>Hours</b>                     |                                                  | <b>16</b>  |
| <b>Spring</b>                    |                                                  |            |
| GRMN 102                         | Elementary German II                             | 4          |
| General Education Requirement    |                                                  | 9          |
| Activity                         |                                                  | 1          |
| <b>Hours</b>                     |                                                  | <b>14</b>  |
| <b>Sophomore</b>                 |                                                  |            |
| <b>Autumn</b>                    |                                                  |            |
| GRMN 201                         | Intermediate German I                            | 4          |
| Intermediate Writing Requirement |                                                  | 3          |
| Upper Division Elective          |                                                  | 9          |
| <b>Hours</b>                     |                                                  | <b>16</b>  |
| <b>Spring</b>                    |                                                  |            |
| GRMN 202                         | Intermediate German II                           | 4          |
| Advanced Writing Requirement     |                                                  | 3          |
| Elective                         |                                                  | 8          |
| <b>Hours</b>                     |                                                  | <b>15</b>  |
| <b>Junior</b>                    |                                                  |            |
| <b>Autumn</b>                    |                                                  |            |
| GRMN 301                         | Studies in German Language, Media, and Culture I | 3          |
| Upper Division Elective          |                                                  | 3          |
| Elective                         |                                                  | 9          |
| <b>Hours</b>                     |                                                  | <b>15</b>  |
| <b>Spring</b>                    |                                                  |            |
| German Major Core Course         |                                                  | 3          |
| German Survey Course Elective    |                                                  | 3          |
| German Elective                  |                                                  | 3          |
| Elective                         |                                                  | 6          |
| <b>Hours</b>                     |                                                  | <b>15</b>  |
| <b>Senior</b>                    |                                                  |            |
| <b>Autumn</b>                    |                                                  |            |
| German Major Core Course         |                                                  | 3          |
| German Survey Course Elective    |                                                  | 3          |
| German Literature/Culture Course |                                                  | 3          |
| German Elective                  |                                                  | 3          |
| Elective                         |                                                  | 3          |
| <b>Hours</b>                     |                                                  | <b>15</b>  |
| <b>Spring</b>                    |                                                  |            |
| German Survey Course elective    |                                                  | 3          |
| German Major Core Course         |                                                  | 3          |
| German Literature/Core Course    |                                                  | 3          |
| Elective                         |                                                  | 6          |
| <b>Hours</b>                     |                                                  | <b>15</b>  |
| <b>Total Hours</b>               |                                                  | <b>121</b> |

*Last updated Autumn 2024*

## German B.A. - German Language Education

- This concentration contains course requirements designed to meet state standards. Those interested in teaching in K-12 schools must complete the education/teaching concentration of a major in a teaching content area plus the Teacher Education Program through the Department of Teaching and Learning. Additional teaching areas can be added through completion of the education/teaching concentration of a major or education/teaching minor in that content area.
  - Secondary Education Licensure Program (<https://www.umt.edu/education/departments/teaching-and-learning/tep/default.php>)
  - Licensure Degree Requirements (p. 151)
- To complete this concentration, you need to contact the Teaching and Learning Department. Approvals for this concentration must come from the Teaching and Learning Department.
- French qualifies for a single field endorsement. However, there is a limited demand in the majority of Montana high schools for teachers with a single endorsement in French. Students should complete the requirements for a second teaching endorsement in another field in more demand in high schools.
- Study in a French speaking country, provided either through the university's Study Abroad Program or an experience considered to be equivalent, also is required.

## General Degree Requirements

To earn a baccalaureate degree, all students must complete successfully, in addition to any other requirements, the University of Montana General Education Requirements. Please refer to the General Education Requirements page (p. 39) for more information.

Additional requirements for graduation can be found on the Degree/Certificate Requirements for Graduation page (p. 36).

Unless otherwise noted in individual program requirements, a minimum grade point average of 2.00 in all work attempted at the University of Montana-Missoula is required for graduation. Please see the Academic Policies and Procedures page (p. 25) for information on how your GPA is calculated.

Courses taken to satisfy the requirements of a major, minor, or certificate program must be completed with a grade of C- or better unless a higher grade is noted in the program requirements.

## Bachelor of Arts - German; German Language Education Concentration

- Students are required to maintain a minimum overall GPA of 2.5 in all upper-division GRMN courses presented in fulfillment of requirements for the German major.

## Course Requirements

| Code                                   | Title                 | Hours |
|----------------------------------------|-----------------------|-------|
| <b>Language Core</b>                   |                       |       |
| Complete all of the following courses: |                       |       |
| GRMN 101                               | Elementary German I   | 4     |
| GRMN 102                               | Elementary German II  | 4     |
| GRMN 201                               | Intermediate German I | 4     |

|                                                                    |                                                                  |           |
|--------------------------------------------------------------------|------------------------------------------------------------------|-----------|
| GRMN 202                                                           | Intermediate German II                                           | 4         |
| <b>Upper-Division Core Courses</b>                                 |                                                                  |           |
| Complete all of the following courses:                             |                                                                  |           |
| GRMN 301                                                           | Studies in German Language, Media, and Culture I                 | 3         |
| GRMN 302                                                           | Studies in German Language, Media, and Culture II                | 3         |
| GRMN 311                                                           | Introduction to German Literature                                | 3         |
| GRMN 313                                                           | German Narratives in Literature and Film                         | 3         |
| Complete one of the following courses:                             |                                                                  | 3         |
| GRMN 441                                                           | 19th Century German Literature                                   |           |
| GRMN 451                                                           | 20th and 21st Century German Literature                          |           |
| GRMN 491                                                           | Special Topics                                                   |           |
| <b>German Culture, Film, and Literature Electives <sup>1</sup></b> |                                                                  |           |
| Complete three of the following courses:                           |                                                                  | 9         |
| GRMN 317L                                                          | Introduction to Multicultural Literature in Contemporary Germany |           |
| GRMN 322L                                                          | Survey of German Cinema                                          |           |
| GRMN 340L                                                          | Nature and the Environment in German Literature and Film         |           |
| GRMN 350                                                           | German Culture & Civilization                                    |           |
| GRMN 351H                                                          | German Culture: Beginnings to Romanticism                        |           |
| GRMN 352H                                                          | Germ Culture: Romanticism to the Present                         |           |
| <b>German Language Education Requirements</b>                      |                                                                  |           |
| Complete all of the following courses:                             |                                                                  |           |
| LING 270S                                                          | Intro to Linguistics                                             | 3         |
| WLC 410                                                            | Methods of Language Teaching                                     | 3         |
| <b>Total Hours</b>                                                 |                                                                  | <b>46</b> |

<sup>1</sup> The advanced writing expectation must be met by successfully completing either GRMN 351H or GRMN 352H.

## Secondary Teaching Licensure

For endorsement to teach this subject, a student also must gain admission to the Teacher Education Program and meet all the requirements for secondary teaching licensure (p. 151). For more information, see the Teaching and Learning Department webpage (<https://www.umt.edu/education/departments/currinst/default.php>).

## German Minor

### General Degree Requirements

To earn a baccalaureate degree, all students must complete successfully, in addition to any other requirements, the University of Montana General Education Requirements. Please refer to the General Education Requirements page (p. 39) for more information.

Additional requirements for graduation can be found on the Degree/Certificate Requirements for Graduation page (p. 36).

Unless otherwise noted in individual program requirements, a minimum grade point average of 2.00 in all work attempted at the University of Montana-Missoula is required for graduation. Please see the Academic

Policies and Procedures page (p. 25) for information on how your GPA is calculated.

Courses taken to satisfy the requirements of a major, minor, or certificate program must be completed with a grade of C- or better unless a higher grade is noted in the program requirements.

## Minor - German

- This minor requires a 2.5 GPA.

### Course Requirements

| Code                                                  | Title                                                            | Hours     |
|-------------------------------------------------------|------------------------------------------------------------------|-----------|
| <b>Language Core</b>                                  |                                                                  |           |
| Complete all of the following courses:                |                                                                  |           |
| GRMN 101                                              | Elementary German I                                              | 4         |
| GRMN 102                                              | Elementary German II                                             | 4         |
| GRMN 201                                              | Intermediate German I                                            | 4         |
| GRMN 202                                              | Intermediate German II                                           | 4         |
| <b>Upper-Division Core Courses <sup>1</sup></b>       |                                                                  |           |
| Complete all of the following courses:                |                                                                  |           |
| GRMN 301                                              | Studies in German Language, Media, and Culture I                 | 3         |
| GRMN 302                                              | Studies in German Language, Media, and Culture II                | 3         |
| or GRMN 305                                           | Practicum in German Language                                     |           |
| GRMN 311                                              | Introduction to German Literature                                | 3         |
| GRMN 313                                              | German Narratives in Literature and Film                         | 3         |
| <b>German Culture, Film, and Literature Electives</b> |                                                                  |           |
| Complete one of the following courses:                |                                                                  |           |
| GRMN 317L                                             | Introduction to Multicultural Literature in Contemporary Germany |           |
| GRMN 322L                                             | Survey of German Cinema                                          |           |
| GRMN 340L                                             | Nature and the Environment in German Literature and Film         |           |
| GRMN 350                                              | German Culture & Civilization                                    |           |
| GRMN 351H                                             | German Culture: Beginnings to Romanticism                        |           |
| GRMN 352H                                             | Germ Culture: Romanticism to the Present                         |           |
| <b>Total Hours</b>                                    |                                                                  | <b>28</b> |

<sup>1</sup> Native or near-native speakers of German must substitute two 400-level literature courses for GRMN 301 and GRMN 302.

## German Language Education Minor

- This minor contains course requirements designed to meet state standards. Those interested in teaching in K-12 schools must complete the education/teaching concentration of a major in a teaching content area plus the Teacher Education Program through the Department of Teaching and Learning. Additional teaching areas can be added through completion of the education/teaching concentration of a major or education/teaching minor in that content area.

- Secondary Education Licensure Program (<http://www.coehs.umt.edu/departments/currinst/undergradprograms/seced/default.php>)
- Licensure Degree Requirements (p. 151)
- To complete this minor, you need to contact the Teaching and Learning Department. Approvals for this minor must come from the Teaching and Learning Department.
- Individuals completing this minor must also complete the education/teaching concentration of a major in another teaching content area.

## General Degree Requirements

To earn a baccalaureate degree, all students must complete successfully, in addition to any other requirements, the University of Montana General Education Requirements. Please refer to the General Education Requirements page (p. 39) for more information.

Additional requirements for graduation can be found on the Degree/Certificate Requirements for Graduation page (p. 36).

Unless otherwise noted in individual program requirements, a minimum grade point average of 2.00 in all work attempted at the University of Montana-Missoula is required for graduation. Please see the Academic Policies and Procedures page (p. 25) for information on how your GPA is calculated.

Courses taken to satisfy the requirements of a major, minor, or certificate program must be completed with a grade of C- or better unless a higher grade is noted in the program requirements.

## Minor - German Language Education

- This minor requires a 2.5 GPA.

### Course Requirements

| Code                                                  | Title                                                            | Hours |
|-------------------------------------------------------|------------------------------------------------------------------|-------|
| <b>Language Core</b>                                  |                                                                  |       |
| Complete all of the following courses:                |                                                                  |       |
| GRMN 101                                              | Elementary German I                                              | 4     |
| GRMN 102                                              | Elementary German II                                             | 4     |
| GRMN 201                                              | Intermediate German I                                            | 4     |
| GRMN 202                                              | Intermediate German II                                           | 4     |
| <b>Upper-Division Core Courses</b> <sup>1</sup>       |                                                                  |       |
| Complete all of the following courses:                |                                                                  |       |
| GRMN 301                                              | Studies in German Language, Media, and Culture I                 | 3     |
| GRMN 302                                              | Studies in German Language, Media, and Culture II                | 3     |
| or GRMN 305                                           | Practicum in German Language                                     |       |
| GRMN 311                                              | Introduction to German Literature                                | 3     |
| GRMN 313                                              | German Narratives in Literature and Film                         | 3     |
| <b>German Culture, Film, and Literature Electives</b> |                                                                  |       |
| Complete one of the following courses:                |                                                                  |       |
| GRMN 317L                                             | Introduction to Multicultural Literature in Contemporary Germany |       |
| GRMN 322L                                             | Survey of German Cinema                                          |       |
| GRMN 340L                                             | Nature and the Environment in German Literature and Film         |       |
| GRMN 350                                              | German Culture & Civilization                                    |       |

GRMN 351H German Culture: Beginnings to Romanticism

GRMN 352H Germ Culture: Romanticism to the Present

### German Language Education Requirements

Complete all of the following courses:

|                    |                              |           |
|--------------------|------------------------------|-----------|
| LING 270S          | Intro to Linguistics         | 3         |
| WLC 410            | Methods of Language Teaching | 3         |
| <b>Total Hours</b> |                              | <b>34</b> |

<sup>1</sup> Native or near-native speakers of German must substitute two 400-level literature courses for GRMN 301 and GRMN 302.

## Secondary Teaching Licensure

For endorsement to teach this subject, a student also must gain admission to the Teacher Education Program and meet all the requirements for secondary teaching licensure (p. 151). For more information, see the Teaching and Learning Department webpage (<https://www.umt.edu/education/departments/currinst/default.php>).

## Japanese B.A.

### General Degree Requirements

To earn a baccalaureate degree, all students must complete successfully, in addition to any other requirements, the University of Montana General Education Requirements. Please refer to the General Education Requirements page (p. 39) for more information.

Additional requirements for graduation can be found on the Degree/Certificate Requirements for Graduation page (p. 36).

Unless otherwise noted in individual program requirements, a minimum grade point average of 2.00 in all work attempted at the University of Montana-Missoula is required for graduation. Please see the Academic Policies and Procedures page (p. 25) for information on how your GPA is calculated.

Courses taken to satisfy the requirements of a major, minor, or certificate program must be completed with a grade of C- or better unless a higher grade is noted in the program requirements.

## Bachelor of Arts - Japanese

- Students are required to maintain a minimum GPA of 2.5 in all their upper-division JPNS courses presented in fulfillment of requirements for the Japanese major.
- All other courses taken to satisfy the requirements of the major or minor must be completed with a grade of C- or better.
- The minimum GPA required is 2.00 in all lower-division work attempted in the major.

### Course Requirements

| Code                                   | Title                           | Hours |
|----------------------------------------|---------------------------------|-------|
| <b>Lower-Division Core Courses</b>     |                                 |       |
| Complete all of the following courses: |                                 |       |
| JPNS 101                               | Elementary Japanese I           | 5     |
| JPNS 102                               | Elementary Japanese II          | 5     |
| JPNS 150H                              | Japanese Culture & Civilization | 3     |
| JPNS 201                               | Intermediate Japanese I         | 5     |

|                                                                                                                                                                 |                                                                                                                                                                                                          |           |
|-----------------------------------------------------------------------------------------------------------------------------------------------------------------|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-----------|
| JPNS 202                                                                                                                                                        | Intermediate Japanese II                                                                                                                                                                                 | 5         |
| <b>East Asian Studies</b>                                                                                                                                       |                                                                                                                                                                                                          |           |
| Complete at least 1 East Asian Studies or history course on Japan or East Asia at any level that are not taught in the World Languages and Cultures Department. |                                                                                                                                                                                                          | 3         |
| CHIN 313L                                                                                                                                                       | Chinese Poetry in Translation                                                                                                                                                                            |           |
| CHIN 380                                                                                                                                                        | Chinese Folktales                                                                                                                                                                                        |           |
| PSCI 311                                                                                                                                                        | Revolution & Reform in Modern China                                                                                                                                                                      |           |
| PSCI 420                                                                                                                                                        | Experimental Offering: Comparative Politics                                                                                                                                                              |           |
| <b>Upper-Division Core Courses</b>                                                                                                                              |                                                                                                                                                                                                          |           |
| Complete all of the following courses:                                                                                                                          |                                                                                                                                                                                                          |           |
| JPNS 301                                                                                                                                                        | Advanced Japanese                                                                                                                                                                                        | 3         |
| JPNS 302                                                                                                                                                        | Advanced Japanese                                                                                                                                                                                        | 3         |
| JPNS 411                                                                                                                                                        | Modern Japanese Writers and Thinkers (repeatable once)                                                                                                                                                   | 3         |
| JPNS 412                                                                                                                                                        | Introduction to Classical Japanese (JPNS 415)                                                                                                                                                            | 3         |
| <b>Electives</b>                                                                                                                                                |                                                                                                                                                                                                          |           |
| Complete 12 credits from the following courses:                                                                                                                 |                                                                                                                                                                                                          | 12        |
| JPNS 312L                                                                                                                                                       | Jpns Lit Medieval to Mod                                                                                                                                                                                 |           |
| JPNS 371                                                                                                                                                        | Japanese Film and Anime                                                                                                                                                                                  |           |
| JPNS 390                                                                                                                                                        | Research (may be taken for up to 3 credits only)                                                                                                                                                         |           |
| JPNS 391                                                                                                                                                        | Special Topics (may only be counted as an elective when the course is a Japanese literature, Japanese pedagogy/linguistics, or Japanese cultural course not part of basic Japanese language instruction) |           |
| JPNS 392                                                                                                                                                        | Independent Study (may be taken for up to 3 credits only)                                                                                                                                                |           |
| JPNS 431                                                                                                                                                        | Post-War Japanese Literature                                                                                                                                                                             |           |
| JPNS 491                                                                                                                                                        | Special Topics (may only be counted as an elective when the course is a Japanese literature, Japanese pedagogy/linguistics, or Japanese cultural course not part of basic Japanese language instruction) |           |
| JPNS 492                                                                                                                                                        | Independent Study                                                                                                                                                                                        |           |
| <b>Total Hours</b>                                                                                                                                              |                                                                                                                                                                                                          | <b>50</b> |

## Four Year Plan

| Course                        | Title                           | Hours        |
|-------------------------------|---------------------------------|--------------|
| <b>Freshman</b>               |                                 |              |
| <b>Autumn</b>                 |                                 |              |
| JPNS 101                      | Elementary Japanese I           | 5            |
| JPNS 150H                     | Japanese Culture & Civilization | 3            |
| WRIT 101                      | College Writing I               | 4            |
| HUSC 194                      | Seminar/Workshop                | 1            |
| Math Requirement              |                                 | 3-4          |
| <b>Hours</b>                  |                                 | <b>16-17</b> |
| <b>Spring</b>                 |                                 |              |
| JPNS 102                      | Elementary Japanese II          | 5            |
| General Education Requirement |                                 | 9            |
| Activity                      |                                 | 1            |
| <b>Hours</b>                  |                                 | <b>15</b>    |
| <b>Sophomore</b>              |                                 |              |
| <b>Autumn</b>                 |                                 |              |
| JPNS 201                      | Intermediate Japanese I         | 5            |

|                                  |                                                                              |         |
|----------------------------------|------------------------------------------------------------------------------|---------|
| Intermediate Writing Requirement |                                                                              | 3       |
| Upper Division Elective          |                                                                              | 3       |
| General Education Requirement    |                                                                              | 3       |
| Activity                         |                                                                              | 1       |
| Hours                            |                                                                              | 15      |
| Spring                           |                                                                              |         |
| JPNS 202                         | Intermediate Japanese II                                                     | 5       |
| Advanced Writing Requirement     |                                                                              | 3       |
| General Education Requirement    |                                                                              | 6       |
| Hours                            |                                                                              | 14      |
| Junior                           |                                                                              |         |
| Autumn                           |                                                                              |         |
| JPNS 301                         | Advanced Japanese                                                            | 3       |
| Upper Division Elective          |                                                                              | 6       |
| General Education Requirement    |                                                                              | 6       |
| Hours                            |                                                                              | 15      |
| Spring                           |                                                                              |         |
| JPNS 302                         | Advanced Japanese                                                            | 3       |
| Upper Division Elective          |                                                                              | 6       |
| General Education Requirement    |                                                                              | 6       |
| Hours                            |                                                                              | 15      |
| Senior                           |                                                                              |         |
| Autumn                           |                                                                              |         |
| JPNS 411                         | Modern Japanese Writers and Thinkers                                         | 3       |
| Japanese Degree Elective         |                                                                              | 3       |
| Upper Division Elective          |                                                                              | 6       |
| General Education Requirement    |                                                                              | 3       |
| Hours                            |                                                                              | 15      |
| Spring                           |                                                                              |         |
| JPNS 412<br>or JPNS 415          | Introduction to Classical Japanese<br>or Advanced Japanese for Professionals | 3       |
| Japanese Degree Elective         |                                                                              | 3       |
| Upper Division Requirement       |                                                                              | 6       |
| General Education Requirement    |                                                                              | 3       |
| Hours                            |                                                                              | 15      |
| Total Hours                      |                                                                              | 120-121 |

*Last updated Autumn 2025*

## Japanese Minor

### General Degree Requirements

To earn a baccalaureate degree, all students must complete successfully, in addition to any other requirements, the University of Montana General Education Requirements. Please refer to the General Education Requirements page (p. 39) for more information.

Additional requirements for graduation can be found on the Degree/Certificate Requirements for Graduation page (p. 36).

Unless otherwise noted in individual program requirements, a minimum grade point average of 2.00 in all work attempted at the University of Montana-Missoula is required for graduation. Please see the Academic Policies and Procedures page (p. 25) for information on how your GPA is calculated.

Courses taken to satisfy the requirements of a major, minor, or certificate program must be completed with a grade of C- or better unless a higher grade is noted in the program requirements.



## Minor - Japanese Course Requirements

| Code                                                | Title                                                     | Hours     |
|-----------------------------------------------------|-----------------------------------------------------------|-----------|
| <b>Lower-Division Core Courses</b>                  |                                                           |           |
| Complete all of the following courses:              |                                                           |           |
| JPNS 101                                            | Elementary Japanese I                                     | 5         |
| JPNS 102                                            | Elementary Japanese II                                    | 5         |
| JPNS 150H                                           | Japanese Culture & Civilization                           | 3         |
| JPNS 201                                            | Intermediate Japanese I                                   | 5         |
| JPNS 202                                            | Intermediate Japanese II                                  | 5         |
| <b>Upper-Division Elective Courses</b> <sup>1</sup> |                                                           |           |
| Complete 9 credits from the following courses:      |                                                           | 9         |
| JPNS 312L                                           | Jpns Lit Medieval to Mod                                  |           |
| JPNS 371                                            | Japanese Film and Anime                                   |           |
| JPNS 390                                            | Research (may be taken for up to 3 credits only)          |           |
| JPNS 391                                            | Special Topics                                            |           |
| JPNS 392                                            | Independent Study (may be taken for up to 3 credits only) |           |
| JPNS 411                                            | Modern Japanese Writers and Thinkers                      |           |
| JPNS 412                                            | Introduction to Classical Japanese                        |           |
| JPNS 431                                            | Post-War Japanese Literature                              |           |
| JPNS 491                                            | Special Topics                                            |           |
| <b>Total Hours</b>                                  |                                                           | <b>32</b> |

<sup>1</sup> If offered, JPNS 191, JPNS 291, or upper-division language courses such as JPNS 301 and/or JPNS 302 may be taken in place of up to 2 of the electives. Also permitted in substitution would be one course from outside the department if it has a substantial East Asia-related element.

## Latin American Studies Minor General Degree Requirements

To earn a baccalaureate degree, all students must complete successfully, in addition to any other requirements, the University of Montana General Education Requirements. Please refer to the General Education Requirements page (p. 39) for more information.

Additional requirements for graduation can be found on the Degree/Certificate Requirements for Graduation page (p. 36).

Unless otherwise noted in individual program requirements, a minimum grade point average of 2.00 in all work attempted at the University of Montana-Missoula is required for graduation. Please see the Academic Policies and Procedures page (p. 25) for information on how your GPA is calculated.

Courses taken to satisfy the requirements of a major, minor, or certificate program must be completed with a grade of C- or better unless a higher grade is noted in the program requirements.

## Minor - Latin American Studies Course Requirements

| Code                                            | Title                                   | Hours     |
|-------------------------------------------------|-----------------------------------------|-----------|
| <b>Lower-Division Core Courses</b>              |                                         |           |
| Complete all of the following courses:          |                                         |           |
| ANTY 103H                                       | Intro Latin American Studies            | 3         |
| SPNS 101                                        | Elementary Spanish I                    | 4         |
| SPNS 102                                        | Elementary Spanish II                   | 4         |
| SPNS 201                                        | Intermediate Spanish I                  | 4         |
| <b>Upper-Division Electives</b>                 |                                         |           |
| Complete 15 credits from the following courses: |                                         | 15        |
| ANTY 354H                                       | Mesoamerican Prehistory                 |           |
| ARTH 494                                        | Seminar                                 |           |
| HSTR 230H                                       | Colonial Latin America                  |           |
| HSTR 231H                                       | Modern Latin America                    |           |
| HSTR 334                                        | Latin America: Reform & Revolution      |           |
| HSTR 335                                        | Latin America: Workers & Labor          |           |
| HSTR 435                                        | Latin American Human Rights & Memory    |           |
| HSTR 437                                        | US-Latin America Relations              |           |
| PSCI 325                                        | Politics of Latin America               |           |
| PSCI 327                                        | Politics of Mexico                      |           |
| PSCI 463                                        | Development Administration              |           |
| SPNS 331                                        | Cultures and Societies of Latin America |           |
| SPNS 432                                        | Latin American Literature               |           |
| SPNS 494                                        | Seminar                                 |           |
| <b>Total Hours</b>                              |                                         | <b>30</b> |

## Latin Minor

### General Degree Requirements

To earn a baccalaureate degree, all students must complete successfully, in addition to any other requirements, the University of Montana General Education Requirements. Please refer to the General Education Requirements page (p. 39) for more information.

Additional requirements for graduation can be found on the Degree/Certificate Requirements for Graduation page (p. 36).

Unless otherwise noted in individual program requirements, a minimum grade point average of 2.00 in all work attempted at the University of Montana-Missoula is required for graduation. Please see the Academic Policies and Procedures page (p. 25) for information on how your GPA is calculated.

Courses taken to satisfy the requirements of a major, minor, or certificate program must be completed with a grade of C- or better unless a higher grade is noted in the program requirements.

## Minor - Latin Course Requirements

| Code                                   | Title              | Hours |
|----------------------------------------|--------------------|-------|
| <b>Core Requirements</b>               |                    |       |
| Complete all of the following courses: |                    |       |
| LATN 101                               | Elementary Latin I | 3     |

|                                                                                                      |                       |           |
|------------------------------------------------------------------------------------------------------|-----------------------|-----------|
| LATN 102                                                                                             | Elementary Latin II   | 3         |
| LATN 201                                                                                             | Intermediate Latin I  | 3         |
| LATN 202                                                                                             | Intermediate Latin II | 3         |
| HSTR 304H                                                                                            | Ancient Rome          | 3         |
| <b>Electives</b>                                                                                     |                       |           |
| Complete 12 credits from the following courses. At least 6 credits must be at the 300- or 400-level. |                       | 12        |
| LATN 292                                                                                             | Independent Study     |           |
| LATN 311                                                                                             | Major Latin Authors   |           |
| LATN 391                                                                                             | Special Topics        |           |
| LATN 392                                                                                             | Independent Study     |           |
| LATN 492                                                                                             | Independent Study     |           |
| <b>Total Hours</b>                                                                                   |                       | <b>27</b> |

## Latin Language Education Minor

- This minor contains course requirements designed to meet state standards. Those interested in teaching in K-12 schools must complete the education/teaching concentration of a major in a teaching content area plus the Teacher Education Program through the Department of Teaching and Learning. Additional teaching areas can be added through completion of the education/teaching concentration of a major or education/teaching minor in that content area.
  - Secondary Education Licensure Program (<https://www.umt.edu/education/departments/teaching-and-learning/tep/default.php>)
  - Licensure Degree Requirements (p. 151)
- To complete this minor, you need to contact the Teaching and Learning Department. Approvals for this minor must come from the Teaching and Learning Department.
- Individuals completing this minor must also complete the education/teaching concentration of a major in another teaching content area.

## General Degree Requirements

To earn a baccalaureate degree, all students must complete successfully, in addition to any other requirements, the University of Montana General Education Requirements. Please refer to the General Education Requirements page (p. 39) for more information.

Additional requirements for graduation can be found on the Degree/Certificate Requirements for Graduation page (p. 36).

Unless otherwise noted in individual program requirements, a minimum grade point average of 2.00 in all work attempted at the University of Montana-Missoula is required for graduation. Please see the Academic Policies and Procedures page (p. 25) for information on how your GPA is calculated.

Courses taken to satisfy the requirements of a major, minor, or certificate program must be completed with a grade of C- or better unless a higher grade is noted in the program requirements.

## Minor - Latin Language Education

### Course Requirements

| Code                                   | Title              | Hours |
|----------------------------------------|--------------------|-------|
| <b>Core Requirements</b>               |                    |       |
| Complete all of the following courses: |                    |       |
| LATN 101                               | Elementary Latin I | 3     |

|                                                                                                     |                              |           |
|-----------------------------------------------------------------------------------------------------|------------------------------|-----------|
| LATN 102                                                                                            | Elementary Latin II          | 3         |
| LATN 201                                                                                            | Intermediate Latin I         | 3         |
| LATN 202                                                                                            | Intermediate Latin II        | 3         |
| HSTR 304H                                                                                           | Ancient Rome                 | 3         |
| WLC 410                                                                                             | Methods of Language Teaching | 3         |
| <b>Electives</b>                                                                                    |                              |           |
| Complete 9 credits from the following courses. At least 3 credits must be at the 300- or 400-level. |                              | 9         |
| LATN 292                                                                                            | Independent Study            |           |
| LATN 311                                                                                            | Major Latin Authors          |           |
| LATN 391                                                                                            | Special Topics               |           |
| LATN 392                                                                                            | Independent Study            |           |
| LATN 492                                                                                            | Independent Study            |           |
| <b>Total Hours</b>                                                                                  |                              | <b>27</b> |

## Secondary Teaching Licensure

For endorsement to teach this subject, a student also must gain admission to the Teacher Education Program and meet all the requirements for secondary teaching licensure (p. 151). For more information, see the Teaching and Learning Department webpage (<https://www.umt.edu/education/departments/currinst/default.php>).

## Russian B.A.

### General Degree Requirements

To earn a baccalaureate degree, all students must complete successfully, in addition to any other requirements, the University of Montana General Education Requirements. Please refer to the General Education Requirements page (p. 39) for more information.

Additional requirements for graduation can be found on the Degree/Certificate Requirements for Graduation page (p. 36).

Unless otherwise noted in individual program requirements, a minimum grade point average of 2.00 in all work attempted at the University of Montana-Missoula is required for graduation. Please see the Academic Policies and Procedures page (p. 25) for information on how your GPA is calculated.

Courses taken to satisfy the requirements of a major, minor, or certificate program must be completed with a grade of C- or better unless a higher grade is noted in the program requirements.

## Bachelor of Arts - Russian

- Students are required to maintain a minimum overall GPA of 2.5 in all upper-division courses presented in fulfillment of requirements for the Russian major.

### Course Requirements

| Code                                   | Title                    | Hours |
|----------------------------------------|--------------------------|-------|
| <b>Lower-Division Core Courses</b>     |                          |       |
| Complete all of the following courses: |                          |       |
| RUSS 101                               | Elementary Russian I     | 4     |
| RUSS 102                               | Elementary Russian II    | 4     |
| RUSS 201                               | Intermediate Russian I   | 4     |
| RUSS 202                               | Intermediate Russian II  | 4     |
| RUSS 105Y                              | Intro to Russian Culture | 3     |

### Translation

Complete the following course:

|          |                                                                    |   |
|----------|--------------------------------------------------------------------|---|
| RUSS 494 | Seminar in Russian Studies (fulfills advanced writing requirement) | 3 |
|----------|--------------------------------------------------------------------|---|

Complete two of the following courses: 6

|           |                                                 |  |
|-----------|-------------------------------------------------|--|
| RUSS 306L | Evil and the Supernatural in Russian Literature |  |
| RUSS 307L | Beauty, Power and Pride in Russian Literature   |  |
| RUSS 308  | Russian Cinema and Culture                      |  |

### Language

Complete four of the following courses: 12

|          |                                         |  |
|----------|-----------------------------------------|--|
| RUSS 301 | Russian: Oral & Written Expression I    |  |
| RUSS 302 | Russian: Oral and Written Expression II |  |
| RUSS 411 | 19th-Century Russian Authors            |  |
| RUSS 412 | 20th-Century Russian Authors            |  |
| RUSS 424 | Russian Short Story                     |  |
| RUSS 440 | Russian Poetry                          |  |

### World Languages and Cultures Course

Complete one of the following courses: 3

|          |                                              |  |
|----------|----------------------------------------------|--|
| HSTR 357 | Russia to 1881                               |  |
| HSTR 358 | Russia Since 1881                            |  |
| WLC 381  | Madness in Literature and Cinema             |  |
| WLC 382  | Environmental Humanities: World Perspectives |  |

**Total Hours** 43

*Last Updated Autumn 2024*

## Four Year Plan

| Course                           | Title                               | Hours     |
|----------------------------------|-------------------------------------|-----------|
| <b>First Year</b>                |                                     |           |
| <b>Autumn</b>                    |                                     |           |
| RUSS 101                         | Elementary Russian I                | 4         |
| RUSS 105Y                        | Intro to Russian Culture            | 3         |
| HUSC 194                         | Seminar/Workshop (Freshman Seminar) | 1         |
| WRIT 101                         | College Writing I                   | 4         |
| Math Course                      |                                     | 3         |
| Activities Course                |                                     | 1         |
| <b>Hours</b>                     |                                     | <b>16</b> |
| <b>Spring</b>                    |                                     |           |
| RUSS 102                         | Elementary Russian II               | 4         |
| General Education Requirements   |                                     | 9         |
| Activities Course                |                                     | 1         |
| <b>Hours</b>                     |                                     | <b>14</b> |
| <b>Second Year</b>               |                                     |           |
| <b>Autumn</b>                    |                                     |           |
| RUSS 201                         | Intermediate Russian I              | 4         |
| Intermediate Writing Requirement |                                     | 3         |
| General Electives                |                                     | 9         |
| <b>Hours</b>                     |                                     | <b>16</b> |
| <b>Spring</b>                    |                                     |           |
| RUSS 202                         | Intermediate Russian II             | 4         |
| Advanced Writing Requirement     |                                     | 3         |
| Upper-Division Electives         |                                     | 8         |
| <b>Hours</b>                     |                                     | <b>15</b> |

### Third Year

#### Autumn

|                          |                                      |           |
|--------------------------|--------------------------------------|-----------|
| RUSS 301                 | Russian: Oral & Written Expression I | 3         |
| Russian UD Elective      | Translation                          | 3         |
| Russian UD Elective      | History                              | 3         |
| Upper-Division Electives |                                      | 6         |
| <b>Hours</b>             |                                      | <b>15</b> |

#### Spring

|                              |             |           |
|------------------------------|-------------|-----------|
| Russian Major UD Core Course | Expression  | 3         |
| Russian UD Elective          | Translation | 3         |
| Russian UD Elective          | Language    | 3         |
| General Electives            |             | 6         |
| <b>Hours</b>                 |             | <b>15</b> |

### Fourth Year

#### Autumn

|                           |             |           |
|---------------------------|-------------|-----------|
| Russian Major UD Elective | Expression  | 3         |
| Russian Major UD Elective | Translation | 3         |
| Russian Major UD Elective | Language    | 3         |
| General Electives         |             | 6         |
| <b>Hours</b>              |             | <b>15</b> |

#### Spring

|                           |          |            |
|---------------------------|----------|------------|
| Russian Major UD Elective | Language | 3          |
| General Electives         |          | 12         |
| <b>Hours</b>              |          | <b>15</b>  |
| <b>Total Hours</b>        |          | <b>121</b> |

*Last Updated Autumn 2024*

## Russian B.A. - Russian Language Education

- This concentration contains course requirements designed to meet state standards. Those interested in teaching in K-12 schools must complete the education/teaching concentration of a major in a teaching content area plus the Teacher Education Program through the Department of Teaching and Learning. Additional teaching areas can be added through completion of the education/teaching concentration of a major or education/teaching minor in that content area.
  - Secondary Education Licensure Program (<https://www.umt.edu/education/departments/teaching-and-learning/tep/default.php>)
  - Licensure Degree Requirements (p. 151)
- To complete this concentration, you need to contact the Teaching and Learning Department. Approvals for this concentration must come from the Teaching and Learning Department.
- French qualifies for a single field endorsement. However, there is a limited demand in the majority of Montana high schools for teachers with a single endorsement in French. Students should complete the requirements for a second teaching endorsement in another field in more demand in high schools.
- Study in a French speaking country, provided either through the university's Study Abroad Program or an experience considered to be equivalent, also is required.

## General Degree Requirements

To earn a baccalaureate degree, all students must complete successfully, in addition to any other requirements, the University of Montana General Education Requirements. Please refer to the General Education Requirements page (p. 39) for more information.

Additional requirements for graduation can be found on the Degree/Certificate Requirements for Graduation page (p. 36).

Unless otherwise noted in individual program requirements, a minimum grade point average of 2.00 in all work attempted at the University of Montana-Missoula is required for graduation. Please see the Academic Policies and Procedures page (p. 25) for information on how your GPA is calculated.

Courses taken to satisfy the requirements of a major, minor, or certificate program must be completed with a grade of C- or better unless a higher grade is noted in the program requirements.

Bachelor of Arts - Russian; Russian Language Education Concentration

- Students are required to maintain a minimum overall GPA of 2.5 in all upper-division courses presented in fulfillment of requirements for the Russian major.

Course Requirements

| Code                                    | Title                                                              | Hours |
|-----------------------------------------|--------------------------------------------------------------------|-------|
| Lower-Division Core Courses             |                                                                    |       |
| Complete all of the following courses:  |                                                                    |       |
| RUSS 101                                | Elementary Russian I                                               | 4     |
| RUSS 102                                | Elementary Russian II                                              | 4     |
| RUSS 201                                | Intermediate Russian I                                             | 4     |
| RUSS 202                                | Intermediate Russian II                                            | 4     |
| RUSS 105Y                               | Intro to Russian Culture                                           | 3     |
| Translation                             |                                                                    |       |
| Complete the following course:          |                                                                    |       |
| RUSS 494                                | Seminar in Russian Studies (fulfills advanced writing requirement) | 3     |
| Complete two of the following courses:  |                                                                    | 6     |
| RUSS 306L                               | Evil and the Supernatural in Russian Literature                    |       |
| RUSS 307L                               | Beauty, Power and Pride in Russian Literature                      |       |
| RUSS 308                                | Russian Cinema and Culture                                         |       |
| Language                                |                                                                    |       |
| Complete four of the following courses: |                                                                    | 12    |
| RUSS 301                                | Russian: Oral & Written Expression I                               |       |
| RUSS 302                                | Russian: Oral and Written Expression II                            |       |
| RUSS 411                                | 19th-Century Russian Authors                                       |       |
| RUSS 412                                | 20th-Century Russian Authors                                       |       |
| RUSS 424                                | Russian Short Story                                                |       |
| RUSS 440                                | Russian Poetry                                                     |       |
| World Languages and Cultures Course     |                                                                    |       |
| Complete one of the following courses:  |                                                                    | 3     |
| HSTR 357                                | Russia to 1881                                                     |       |
| HSTR 358                                | Russia Since 1881                                                  |       |
| WLC 381                                 | Madness in Literature and Cinema                                   |       |
| WLC 382                                 | Environmental Humanities: World Perspectives                       |       |
| Teaching Methods                        |                                                                    |       |
| Complete the following course:          |                                                                    |       |

|             |                              |    |
|-------------|------------------------------|----|
| WLC 410     | Methods of Language Teaching | 3  |
| Total Hours |                              | 46 |

Secondary Teaching Licensure

For endorsement to teach this subject, a student also must gain admission to the Teacher Education Program and meet all the requirements for secondary teaching licensure (p. 151). For more information, see the Teaching and Learning Department webpage (<https://www.umt.edu/education/departments/currinst/default.php>).

Russian Minor General Degree Requirements

To earn a baccalaureate degree, all students must complete successfully, in addition to any other requirements, the University of Montana General Education Requirements. Please refer to the General Education Requirements page (p. 39) for more information.

Additional requirements for graduation can be found on the Degree/Certificate Requirements for Graduation page (p. 36).

Unless otherwise noted in individual program requirements, a minimum grade point average of 2.00 in all work attempted at the University of Montana-Missoula is required for graduation. Please see the Academic Policies and Procedures page (p. 25) for information on how your GPA is calculated.

Courses taken to satisfy the requirements of a major, minor, or certificate program must be completed with a grade of C- or better unless a higher grade is noted in the program requirements.

Minor - Russian

- This minor requires a minimum GPA of 2.5.

Course Requirements

| Code                                                                                               | Title                   | Hours |
|----------------------------------------------------------------------------------------------------|-------------------------|-------|
| Complete all of the following courses:                                                             |                         |       |
| RUSS 101                                                                                           | Elementary Russian I    | 4     |
| RUSS 102                                                                                           | Elementary Russian II   | 4     |
| RUSS 201                                                                                           | Intermediate Russian I  | 4     |
| RUSS 202                                                                                           | Intermediate Russian II | 4     |
| Upper-Division Credits                                                                             |                         |       |
| Complete 12 upper-division credits in Russian-related courses taught by WLC faculty or equivalent. |                         | 12    |
| Total Hours                                                                                        |                         | 28    |

Russian Language Education Minor

- This minor contains course requirements designed to meet state standards. Those interested in teaching in K-12 schools must complete the education/teaching concentration of a major in a teaching content area plus the Teacher Education Program through the Department of Teaching and Learning. Additional teaching areas can be added through completion of the education/teaching concentration of a major or education/teaching minor in that content area.

- Secondary Education Licensure Program (<https://www.umt.edu/education/departments/teaching-and-learning/tep/default.php>)
- Licensure Degree Requirements (p. 151)
- To complete this minor, you need to contact the Teaching and Learning Department. Approvals for this minor must come from the Teaching and Learning Department.
- Individuals completing this minor must also complete the education/teaching concentration of a major in another teaching content area.

## General Degree Requirements

To earn a baccalaureate degree, all students must complete successfully, in addition to any other requirements, the University of Montana General Education Requirements. Please refer to the General Education Requirements page (p. 39) for more information.

Additional requirements for graduation can be found on the Degree/Certificate Requirements for Graduation page (p. 36).

Unless otherwise noted in individual program requirements, a minimum grade point average of 2.00 in all work attempted at the University of Montana-Missoula is required for graduation. Please see the Academic Policies and Procedures page (p. 25) for information on how your GPA is calculated.

Courses taken to satisfy the requirements of a major, minor, or certificate program must be completed with a grade of C- or better unless a higher grade is noted in the program requirements.

## Minor - Russian Language Education

- This minor requires a minimum GPA of 2.5.

### Course Requirements

| Code                                                                                               | Title                        | Hours     |
|----------------------------------------------------------------------------------------------------|------------------------------|-----------|
| <b>Complete all of the following courses:</b>                                                      |                              |           |
| RUSS 101                                                                                           | Elementary Russian I         | 4         |
| RUSS 102                                                                                           | Elementary Russian II        | 4         |
| RUSS 201                                                                                           | Intermediate Russian I       | 4         |
| RUSS 202                                                                                           | Intermediate Russian II      | 4         |
| <b>Upper-Division Credits</b>                                                                      |                              |           |
| Complete 12 upper-division credits in Russian-related courses taught by WLC faculty or equivalent. |                              | 12        |
| <b>Teaching Methods</b>                                                                            |                              |           |
| Complete the following course:                                                                     |                              |           |
| WLC 410                                                                                            | Methods of Language Teaching | 3         |
| <b>Total Hours</b>                                                                                 |                              | <b>31</b> |

## Secondary Teaching Licensure

For endorsement to teach this subject, a student also must gain admission to the Teacher Education Program and meet all the requirements for secondary teaching licensure (p. 151). For more information, see the Teaching and Learning Department webpage (<https://www.umt.edu/education/departments/currinst/default.php>).

## Russian Studies Minor

### General Degree Requirements

To earn a baccalaureate degree, all students must complete successfully, in addition to any other requirements, the University of Montana General Education Requirements. Please refer to the General Education Requirements page (p. 39) for more information.

Additional requirements for graduation can be found on the Degree/Certificate Requirements for Graduation page (p. 36).

Unless otherwise noted in individual program requirements, a minimum grade point average of 2.00 in all work attempted at the University of Montana-Missoula is required for graduation. Please see the Academic Policies and Procedures page (p. 25) for information on how your GPA is calculated.

Courses taken to satisfy the requirements of a major, minor, or certificate program must be completed with a grade of C- or better unless a higher grade is noted in the program requirements.

## Minor - Russian Studies

- This minor requires a minimum GPA of 2.5.

### Course Requirements

| Code                                          | Title                                           | Hours |
|-----------------------------------------------|-------------------------------------------------|-------|
| <b>Lower Division Core Courses</b>            |                                                 |       |
| Complete all of the following courses:        |                                                 |       |
| RUSS 101                                      | Elementary Russian I                            | 4     |
| RUSS 102                                      | Elementary Russian II                           | 4     |
| RUSS 201                                      | Intermediate Russian I                          | 4     |
| RUSS 202                                      | Intermediate Russian II                         | 4     |
| RUSS 105Y                                     | Intro to Russian Culture                        | 3     |
| <b>History</b>                                |                                                 |       |
| Complete one of the following courses:        |                                                 | 3     |
| HSTR 357                                      | Russia to 1881                                  |       |
| HSTR 358                                      | Russia Since 1881                               |       |
| <b>Russian Electives</b>                      |                                                 |       |
| Complete 3 credits of the following courses:  |                                                 | 3     |
| RUSS 301                                      | Russian: Oral & Written Expression I            |       |
| RUSS 302                                      | Russian: Oral and Written Expression II         |       |
| RUSS 306L                                     | Evil and the Supernatural in Russian Literature |       |
| RUSS 307L                                     | Beauty, Power and Pride in Russian Literature   |       |
| RUSS 308                                      | Russian Cinema and Culture                      |       |
| RUSS 411                                      | 19th-Century Russian Authors                    |       |
| RUSS 412                                      | 20th-Century Russian Authors                    |       |
| RUSS 424                                      | Russian Short Story                             |       |
| RUSS 440                                      | Russian Poetry                                  |       |
| RUSS 494                                      | Seminar in Russian Studies                      |       |
| <b>Russian Elective in Another Discipline</b> |                                                 |       |



Complete 3 upper-division credits in another department/discipline besides Russian or History. Speak with your minor advisor or the Russian Studies program director about which courses might fulfill this requirement.

**Total Hours** **28**

# Spanish B.A.

## General Degree Requirements

To earn a baccalaureate degree, all students must complete successfully, in addition to any other requirements, the University of Montana General Education Requirements. Please refer to the General Education Requirements page (p. 39) for more information.

Additional requirements for graduation can be found on the Degree/Certificate Requirements for Graduation page (p. 36).

Unless otherwise noted in individual program requirements, a minimum grade point average of 2.00 in all work attempted at the University of Montana-Missoula is required for graduation. Please see the Academic Policies and Procedures page (p. 25) for information on how your GPA is calculated.

Courses taken to satisfy the requirements of a major, minor, or certificate program must be completed with a grade of C- or better unless a higher grade is noted in the program requirements.

## Bachelor of Arts - Spanish

- Students are required to maintain a minimum overall GPA of 2.5 in all upper-division courses presented in fulfillment of requirements for the Spanish major.

### Course Requirements

| Code                                                                                                                                                                                                                                                                                            | Title                                                                                                    | Hours     |
|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|----------------------------------------------------------------------------------------------------------|-----------|
| <b>Lower-Division Core Courses</b>                                                                                                                                                                                                                                                              |                                                                                                          |           |
| Complete all of the following courses:                                                                                                                                                                                                                                                          |                                                                                                          |           |
| SPNS 101                                                                                                                                                                                                                                                                                        | Elementary Spanish I                                                                                     | 4         |
| SPNS 102                                                                                                                                                                                                                                                                                        | Elementary Spanish II                                                                                    | 4         |
| SPNS 201                                                                                                                                                                                                                                                                                        | Intermediate Spanish I                                                                                   | 4         |
| SPNS 202                                                                                                                                                                                                                                                                                        | Intermediate Spanish II                                                                                  | 4         |
| <b>Upper-Division Core Courses</b>                                                                                                                                                                                                                                                              |                                                                                                          |           |
| SPNS 301                                                                                                                                                                                                                                                                                        | Spanish: Oral and Written Expression (may be taken concurrently with any other 300-level Spanish course) | 3         |
| Complete all of the following courses:                                                                                                                                                                                                                                                          |                                                                                                          |           |
| SPNS 315                                                                                                                                                                                                                                                                                        | Topics in Hispanic Culture                                                                               | 3         |
| SPNS 499                                                                                                                                                                                                                                                                                        | Senior Thesis/Capstone                                                                                   | 3         |
| WLC 391                                                                                                                                                                                                                                                                                         | Special Topics                                                                                           | 3         |
| <b>Additional Upper-Division Spanish Electives</b>                                                                                                                                                                                                                                              |                                                                                                          |           |
| Complete 18 credits of upper-division courses in Spanish. 6 credits need to be 400 level content courses: SPNS 400, SPNS 432, SPNS 465, SPNS 466, SPNS 491, SPNS 492 or SPNS 494. The remaining 12 credits could be completed by taking any combination of the upper-division elective courses. |                                                                                                          | 18        |
| <b>Total Hours</b>                                                                                                                                                                                                                                                                              |                                                                                                          | <b>46</b> |

## Four Year Plan

| Course                         | Title                                                            | Hours |
|--------------------------------|------------------------------------------------------------------|-------|
| Freshman                       |                                                                  |       |
| Autumn                         |                                                                  |       |
| SPNS 101                       | Elementary Spanish I                                             | 4     |
| WRIT 101                       | College Writing I                                                | 4     |
| M 105                          | Contemporary Mathematics (Suggested course)                      | 3-4   |
| General Education Requirement  |                                                                  | 3     |
| HUSC 194                       | Seminar/Workshop (Suggested course)                              | 1     |
| Hours                          |                                                                  | 15-16 |
| Spring                         |                                                                  |       |
| SPNS 102                       | Elementary Spanish II                                            | 4     |
| General Education Requirements |                                                                  | 9     |
| Activity (Suggested course)    |                                                                  | 1     |
| Hours                          |                                                                  | 14    |
| Sophomore                      |                                                                  |       |
| Autumn                         |                                                                  |       |
| SPNS 201                       | Intermediate Spanish I                                           | 4     |
| General Education Requirements |                                                                  | 9     |
| Elective                       |                                                                  | 3     |
| Hours                          |                                                                  | 16    |
| Spring                         |                                                                  |       |
| SPNS 202                       | Intermediate Spanish II                                          | 4     |
| General Education Requirements |                                                                  | 9     |
| Elective                       |                                                                  | 3     |
| Hours                          |                                                                  | 16    |
| Junior                         |                                                                  |       |
| Autumn                         |                                                                  |       |
| SPNS 301                       | Spanish: Oral and Written Expression                             | 3     |
| SPNS 315                       | Topics in Hispanic Culture                                       | 3     |
| SPNS 326                       | Contemporary Spanish Literature (Suggested course)               | 3     |
| Elective                       |                                                                  | 6     |
| Hours                          |                                                                  | 15    |
| Spring                         |                                                                  |       |
| SPNS 331                       | Cultures and Societies of Latin America (Suggested course)       | 3     |
| WLC 391                        | Special Topics                                                   | 3     |
| SPNS 305                       | Spanish Phonetics                                                | 3     |
| or SPNS 308                    | or Intensive Spanish Abroad                                      |       |
| or SPNS 321                    | or Advanced Conversations                                        |       |
| or SPNS 345                    | or Bilingualism in the Spanish-Speaking World                    |       |
| or SPNS 353                    | or SIGE: The City and The Image                                  |       |
| or SPNS 354                    | or SIGE: History Through Spanish Gastronomy                      |       |
| or SPNS 355                    | or                                                               |       |
| or SPNS 356                    | or SIGE: Literature & Seville                                    |       |
| or SPNS 372                    | or SIGE: Introduction to Spain                                   |       |
| or SPNS 381                    | or SIGE: Summer Intensive Spanish Grammar & Conversation         |       |
| or SPNS 391                    | or Special Topics                                                |       |
| or SPNS 392                    | or Independent Study                                             |       |
| or SPNS 398                    | or Internship                                                    |       |
| Electives                      |                                                                  | 6     |
| Hours                          |                                                                  | 15    |
| Senior                         |                                                                  |       |
| Autumn                         |                                                                  |       |
| SPNS 432                       | Latin American Literature (Suggested 400-level Spanish elective) | 3     |

|                    |                                                          |                |
|--------------------|----------------------------------------------------------|----------------|
| SPNS 305           | Spanish Phonetics (take 2)                               | 6              |
| or SPNS 308        | or Intensive Spanish Abroad                              |                |
| or SPNS 321        | or Advanced Conversations                                |                |
| or SPNS 345        | or Bilingualism in the Spanish-Speaking World            |                |
| or SPNS 353        | or SIGE: The City and The Image                          |                |
| or SPNS 354        | or SIGE: History Through Spanish Gastronomy              |                |
| or SPNS 355        | or                                                       |                |
| or SPNS 356        | or SIGE: Literature & Seville                            |                |
| or SPNS 372        | or SIGE: Introduction to Spain                           |                |
| or SPNS 381        | or SIGE: Summer Intensive Spanish Grammar & Conversation |                |
| or SPNS 391        | or Special Topics                                        |                |
| or SPNS 392        | or Independent Study                                     |                |
| or SPNS 398        | or Internship                                            |                |
| Electives          |                                                          | 6              |
| <b>Hours</b>       |                                                          | <b>15</b>      |
| <b>Spring</b>      |                                                          |                |
| SPNS 499           | Senior Thesis/Capstone                                   | 3              |
| SPNS 400           | Introduction to Spanish Linguistics                      | 3              |
| or SPNS 408        | or Spanish: Advanced Composition & Conversation          |                |
| or SPNS 465        | or Spanish Literature: Renaissance and Golden Age        |                |
| or SPNS 466        | or Spanish Literature: Modern & Contemporary             |                |
| or SPNS 491        | or Special Topics                                        |                |
| or SPNS 492        | or Independent Study                                     |                |
| or SPNS 494        | or Seminar                                               |                |
| or SPNS 498        | or Internship                                            |                |
| SPNS 305           | Spanish Phonetics                                        | 3              |
| or SPNS 308        | or Intensive Spanish Abroad                              |                |
| or SPNS 321        | or Advanced Conversations                                |                |
| or SPNS 345        | or Bilingualism in the Spanish-Speaking World            |                |
| or SPNS 353        | or SIGE: The City and The Image                          |                |
| or SPNS 354        | or SIGE: History Through Spanish Gastronomy              |                |
| or SPNS 355        | or                                                       |                |
| or SPNS 356        | or SIGE: Literature & Seville                            |                |
| or SPNS 372        | or SIGE: Introduction to Spain                           |                |
| or SPNS 381        | or SIGE: Summer Intensive Spanish Grammar & Conversation |                |
| or SPNS 391        | or Special Topics                                        |                |
| or SPNS 392        | or Independent Study                                     |                |
| or SPNS 398        | or Internship                                            |                |
| Electives          |                                                          | 6              |
| <b>Hours</b>       |                                                          | <b>15</b>      |
| <b>Total Hours</b> |                                                          | <b>121-122</b> |

*Last updated Autumn 2024*

## Spanish B.A. - Spanish Language Education

- This concentration contains course requirements designed to meet state standards. Those interested in teaching in K-12 schools must complete the education/teaching concentration of a major in a teaching content area plus the Teacher Education Program through the Department of Teaching and Learning. Additional teaching areas can be added through completion of the education/teaching concentration of a major or education/teaching minor in that content area.
  - Secondary Education Licensure Program (<https://www.umt.edu/education/departments/teaching-and-learning/tep/default.php>)
  - Licensure Degree Requirements (p. 151)
- To complete this concentration, you need to contact the Teaching and Learning Department. Approvals for this concentration must come from the Teaching and Learning Department.
- French qualifies for a single field endorsement. However, there is a limited demand in the majority of Montana high schools for teachers with a single endorsement in French. Students should complete the

requirements for a second teaching endorsement in another field in more demand in high schools.

- Study in a French speaking country, provided either through the university's Study Abroad Program or an experience considered to be equivalent, also is required.

## General Degree Requirements

To earn a baccalaureate degree, all students must complete successfully, in addition to any other requirements, the University of Montana General Education Requirements. Please refer to the General Education Requirements page (p. 39) for more information.

Additional requirements for graduation can be found on the Degree/Certificate Requirements for Graduation page (p. 36).

Unless otherwise noted in individual program requirements, a minimum grade point average of 2.00 in all work attempted at the University of Montana-Missoula is required for graduation. Please see the Academic Policies and Procedures page (p. 25) for information on how your GPA is calculated.

Courses taken to satisfy the requirements of a major, minor, or certificate program must be completed with a grade of C- or better unless a higher grade is noted in the program requirements.

## Bachelor of Arts - Spanish; Spanish Language Education Concentration

- Students are required to maintain a minimum overall GPA of 2.5 in all upper-division courses presented in fulfillment of requirements for the Spanish major.

### Course Requirements

| Code                                                                                                                                                                                                                                                                                            | Title                                                                                                    | Hours |
|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|----------------------------------------------------------------------------------------------------------|-------|
| <b>Lower-Division Core Courses</b>                                                                                                                                                                                                                                                              |                                                                                                          |       |
| Complete all of the following courses:                                                                                                                                                                                                                                                          |                                                                                                          |       |
| SPNS 101                                                                                                                                                                                                                                                                                        | Elementary Spanish I                                                                                     | 4     |
| SPNS 102                                                                                                                                                                                                                                                                                        | Elementary Spanish II                                                                                    | 4     |
| SPNS 201                                                                                                                                                                                                                                                                                        | Intermediate Spanish I                                                                                   | 4     |
| SPNS 202                                                                                                                                                                                                                                                                                        | Intermediate Spanish II                                                                                  | 4     |
| <b>Upper-Division Core Courses</b>                                                                                                                                                                                                                                                              |                                                                                                          |       |
| SPNS 301                                                                                                                                                                                                                                                                                        | Spanish: Oral and Written Expression (may be taken concurrently with any other 300-level Spanish course) | 3     |
| Complete all of the following courses:                                                                                                                                                                                                                                                          |                                                                                                          |       |
| SPNS 315                                                                                                                                                                                                                                                                                        | Topics in Hispanic Culture                                                                               | 3     |
| <b>Additional Upper-Division Spanish Electives</b>                                                                                                                                                                                                                                              |                                                                                                          |       |
| Complete 12 credits of upper-division courses in Spanish. 6 credits need to be 400 level content courses: SPNS 400, SPNS 432, SPNS 465, SPNS 466, SPNS 491, SPNS 492 or SPNS 494. The remaining 12 credits could be completed by taking any combination of the upper-division elective courses. |                                                                                                          | 12    |
| <b>Spanish Language Education Concentration Requirements</b>                                                                                                                                                                                                                                    |                                                                                                          |       |
| Complete all of the following courses:                                                                                                                                                                                                                                                          |                                                                                                          |       |
| LING 270S                                                                                                                                                                                                                                                                                       | Intro to Linguistics                                                                                     | 3     |
| SPNS 305                                                                                                                                                                                                                                                                                        | Spanish Phonetics                                                                                        | 3     |
| SPNS 326                                                                                                                                                                                                                                                                                        | Contemporary Spanish Lit                                                                                 | 3     |
| SPNS 331                                                                                                                                                                                                                                                                                        | Cultures and Societies of Latin America                                                                  | 3     |

|                    |                                              |           |
|--------------------|----------------------------------------------|-----------|
| SPNS 400           | Introduction to Spanish Linguistics          | 3         |
| SPNS 408           | Spanish: Advanced Composition & Conversation | 3         |
| WLC 410            | Methods of Language Teaching                 | 3         |
| <b>Total Hours</b> |                                              | <b>55</b> |

## Secondary Teaching Licensure

For endorsement to teach this subject, a student also must gain admission to the Teacher Education Program and meet all the requirements for secondary teaching licensure (p. 151). For more information, see the Teaching and Learning Department webpage (<https://www.umt.edu/education/departments/currinst/default.php>).

## Spanish Minor

### General Degree Requirements

To earn a baccalaureate degree, all students must complete successfully, in addition to any other requirements, the University of Montana General Education Requirements. Please refer to the General Education Requirements page (p. 39) for more information.

Additional requirements for graduation can be found on the Degree/Certificate Requirements for Graduation page (p. 36).

Unless otherwise noted in individual program requirements, a minimum grade point average of 2.00 in all work attempted at the University of Montana-Missoula is required for graduation. Please see the Academic Policies and Procedures page (p. 25) for information on how your GPA is calculated.

Courses taken to satisfy the requirements of a major, minor, or certificate program must be completed with a grade of C- or better unless a higher grade is noted in the program requirements.

## Minor - Spanish

- Students are required to maintain a minimum overall GPA of 2.5 in all courses presented in fulfillment of requirements for this minor.

### Course Requirements

| Code                                   | Title                                          | Hours |
|----------------------------------------|------------------------------------------------|-------|
| <b>Core Courses</b>                    |                                                |       |
| Complete all of the following courses: |                                                |       |
| SPNS 101                               | Elementary Spanish I                           | 4     |
| SPNS 102                               | Elementary Spanish II                          | 4     |
| SPNS 201                               | Intermediate Spanish I                         | 4     |
| SPNS 202                               | Intermediate Spanish II                        | 4     |
| SPNS 301                               | Spanish: Oral and Written Expression           | 3     |
| SPNS 326                               | Contemporary Spanish Lit                       | 3     |
| or SPNS 331                            | Cultures and Societies of Latin America        |       |
| <b>Upper-Division Electives</b>        |                                                |       |
| Complete one of the following courses: |                                                |       |
| SPNS 400                               | Introduction to Spanish Linguistics            | 3     |
| SPNS 432                               | Latin American Literature                      |       |
| SPNS 465                               | Spanish Literature: Renaissance and Golden Age |       |
| SPNS 466                               | Spanish Literature: Modern & Contemporary      |       |

|          |         |  |
|----------|---------|--|
| SPNS 494 | Seminar |  |
|----------|---------|--|

### Additional Electives

Complete 9 credits of additional upper-division SPNS electives.

|                    |           |
|--------------------|-----------|
| <b>Total Hours</b> | <b>34</b> |
|--------------------|-----------|

## Spanish Language Education Minor

- This minor contains course requirements designed to meet state standards. Those interested in teaching in K-12 schools must complete the education/teaching concentration of a major in a teaching content area plus the Teacher Education Program through the Department of Teaching and Learning. Additional teaching areas can be added through completion of the education/teaching concentration of a major or education/teaching minor in that content area.
  - Secondary Education Licensure Program (<https://www.umt.edu/education/departments/teaching-and-learning/tep/default.php>)
  - Licensure Degree Requirements (p. 151)
- To complete this minor, you need to contact the Teaching and Learning Department. Approvals for this minor must come from the Teaching and Learning Department.
- Individuals completing this minor must also complete the education/teaching concentration of a major in another teaching content area.

### General Degree Requirements

To earn a baccalaureate degree, all students must complete successfully, in addition to any other requirements, the University of Montana General Education Requirements. Please refer to the General Education Requirements page (p. 39) for more information.

Additional requirements for graduation can be found on the Degree/Certificate Requirements for Graduation page (p. 36).

Unless otherwise noted in individual program requirements, a minimum grade point average of 2.00 in all work attempted at the University of Montana-Missoula is required for graduation. Please see the Academic Policies and Procedures page (p. 25) for information on how your GPA is calculated.

Courses taken to satisfy the requirements of a major, minor, or certificate program must be completed with a grade of C- or better unless a higher grade is noted in the program requirements.

## Minor - Spanish Language Education

- Students are required to maintain a minimum overall GPA of 2.5 in all courses presented in fulfillment of requirements for this minor.

### Course Requirements

| Code                                   | Title                   | Hours |
|----------------------------------------|-------------------------|-------|
| <b>Lower-Division Core</b>             |                         |       |
| Complete all of the following courses: |                         |       |
| LING 270S                              | Intro to Linguistics    | 3     |
| SPNS 101                               | Elementary Spanish I    | 4     |
| SPNS 102                               | Elementary Spanish II   | 4     |
| SPNS 201                               | Intermediate Spanish I  | 4     |
| SPNS 202                               | Intermediate Spanish II | 4     |
| <b>Upper-Division Core</b>             |                         |       |

Complete all of the following courses:

|                    |                                         |           |
|--------------------|-----------------------------------------|-----------|
| SPNS 301           | Spanish: Oral and Written Expression    | 3         |
| SPNS 305           | Spanish Phonetics                       | 3         |
| SPNS 326           | Contemporary Spanish Lit                | 3         |
| or SPNS 331        | Cultures and Societies of Latin America |           |
| SPNS 400           | Introduction to Spanish Linguistics     | 3         |
| WLC 410            | Methods of Language Teaching            | 3         |
| <b>Total Hours</b> |                                         | <b>34</b> |

## Secondary Teaching Licensure

For endorsement to teach this subject, a student also must gain admission to the Teacher Education Program and meet all the requirements for secondary teaching licensure (p. 151). For more information, see the Teaching and Learning Department webpage (<https://www.umt.edu/education/departments/currinst/default.php>).

## World Languages and Cultures B.A.

### General Degree Requirements

To earn a baccalaureate degree, all students must complete successfully, in addition to any other requirements, the University of Montana General Education Requirements. Please refer to the General Education Requirements page (p. 39) for more information.

Additional requirements for graduation can be found on the Degree/Certificate Requirements for Graduation page (p. 36).

Unless otherwise noted in individual program requirements, a minimum grade point average of 2.00 in all work attempted at the University of Montana-Missoula is required for graduation. Please see the Academic Policies and Procedures page (p. 25) for information on how your GPA is calculated.

Courses taken to satisfy the requirements of a major, minor, or certificate program must be completed with a grade of C- or better unless a higher grade is noted in the program requirements.

## Bachelor of Arts - World Languages and Cultures

### Course Requirements

| Code                                                                                                                                       | Title                                   | Hours |
|--------------------------------------------------------------------------------------------------------------------------------------------|-----------------------------------------|-------|
| <b>Lower-Division Language Requirement</b>                                                                                                 |                                         |       |
| Complete the two-year 101-202 sequence in a single language: Arabic, Chinese, French, German, Greek, Japanese, Latin, Spanish, or Russian. |                                         | 12-20 |
| <b>Lower-Division Cultures Requirement</b>                                                                                                 |                                         |       |
| Complete four of the following courses:                                                                                                    |                                         | 12    |
| ANTY 102H                                                                                                                                  | Intro to South & S. East Asia           |       |
| ANTY 103H                                                                                                                                  | Intro Latin American Studies            |       |
| ANTY 133X                                                                                                                                  | Food and Culture                        |       |
| ANTY 141H                                                                                                                                  | The Silk Road                           |       |
| ANTY 220S                                                                                                                                  | Culture & Society                       |       |
| ANTY 241H                                                                                                                                  | Central Asian Culture and Civilization  |       |
| CLAS 160L                                                                                                                                  | Classical Mythology                     |       |
| CLAS 180H                                                                                                                                  | Environment & Nature in Classical World |       |

|                                               |                                                                                   |
|-----------------------------------------------|-----------------------------------------------------------------------------------|
| CLAS 251L                                     | The Epic                                                                          |
| CLAS 252L                                     | Greek Drama: Politics on Stage                                                    |
| GRMN 106H                                     | Introduction to German Culture and Civilization                                   |
| JPNS 150H                                     | Japanese Culture & Civilization                                                   |
| RUSS 105Y                                     | Intro to Russian Culture                                                          |
| SSEA 202X                                     | Introduction to India                                                             |
| Upper-Division Electives                      |                                                                                   |
| Complete 27 credits of the following courses: |                                                                                   |
| ARAB 305                                      | The Arab World                                                                    |
| CHIN 301                                      | Advanced Chinese I                                                                |
| CHIN 313L                                     | Chinese Poetry in Translation                                                     |
| CHIN 314                                      | Traditional Chinese Literature                                                    |
| CHIN 380                                      | Chinese Folktales                                                                 |
| CHIN 388                                      | Readings in Classical Chinese                                                     |
| CLAS 360H                                     | Ancient Greek Civilization and Culture                                            |
| FRCH 301                                      | Advanced Grammar/Oral and Written Expression                                      |
| FRCH 310                                      | French Literature and Culture: Middle Ages and Renaissance                        |
| FRCH 311                                      | French Literature and Culture: 17th Century                                       |
| FRCH 312                                      | French Literature and Culture: 19th Century                                       |
| FRCH 313                                      | French Literature and Culture: 20th Century                                       |
| FRCH 338                                      | The French Cinema                                                                 |
| FRCH 339                                      | Survey of African Cinema                                                          |
| FRCH 350                                      | French Civilization & Culture                                                     |
| FRCH 420                                      | Studies in French Prose                                                           |
| FRCH 430                                      | Studies in French Drama                                                           |
| GRMN 301                                      | Studies in German Language, Media, and Culture I                                  |
| GRMN 302                                      | Studies in German Language, Media, and Culture II                                 |
| GRMN 305                                      | Practicum in German Language                                                      |
| GRMN 311                                      | Introduction to German Literature                                                 |
| GRMN 317L                                     | Introduction to Multicultural Literature in Contemporary Germany                  |
| GRMN 322L                                     | Survey of German Cinema                                                           |
| GRMN 340L                                     | Nature and the Environment in German Literature and Film                          |
| GRMN 350                                      | German Culture & Civilization                                                     |
| GRMN 351H                                     | German Culture: Beginnings to Romanticism                                         |
| GRMN 352H                                     | Germ Culture: Romanticism to the Present                                          |
| GRMN 431                                      | German Literature 1760-1832                                                       |
| GRMN 441                                      | 19th Century German Literature                                                    |
| GRMN 451                                      | 20th and 21st Century German Literature                                           |
| GRMN 494                                      | Seminar in German Studies                                                         |
| HSTR 302H                                     | Ancient Greece                                                                    |
| HSTR 304H                                     | Ancient Rome                                                                      |
| IRSH 345L                                     | Literature in the Irish Lang                                                      |
| IRSH 350                                      | The Literature of pre-Norman Ireland                                              |
| IRSH 355                                      | The Politics of Culture: Irish America, the Gaelic Revival, and the Easter Rising |

|           |                                                                |
|-----------|----------------------------------------------------------------|
| IRSH 365  | Ireland and America in the Age of Enlightenment and Revolution |
| IRSH 370  | The Irish Conflict: 1968-1998                                  |
| IRSH 375  | The Irish and their Language                                   |
| IRSH 380  | Topics in Irish Studies                                        |
| IRSH 381  | Contemporary Irish Women's Writing                             |
| IRSH 382  | Rockin' Rebels: Popular Irish Music from Traditional to Punk   |
| JPNS 301  | Advanced Japanese                                              |
| JPNS 302  | Advanced Japanese                                              |
| JPNS 306  | Japanese for Business and Tourism                              |
| JPNS 312L | Jpns Lit Medieval to Mod                                       |
| JPNS 371  | Japanese Film and Anime                                        |
| JPNS 411  | Modern Japanese Writers and Thinkers                           |
| JPNS 412  | Introduction to Classical Japanese                             |
| JPNS 415  | Advanced Japanese for Professionals                            |
| JPNS 431  | Post-War Japanese Literature                                   |
| LATN 311  | Major Latin Authors                                            |
| RUSS 301  | Russian: Oral & Written Expression I                           |
| RUSS 302  | Russian: Oral and Written Expression II                        |
| RUSS 306L | Evil and the Supernatural in Russian Literature                |
| RUSS 307L | Beauty, Power and Pride in Russian Literature                  |
| RUSS 411  | 19th-Century Russian Authors                                   |
| RUSS 412  | 20th-Century Russian Authors                                   |
| RUSS 424  | Russian Short Story                                            |
| RUSS 440  | Russian Poetry                                                 |
| SPNS 301  | Spanish: Oral and Written Expression                           |
| SPNS 305  | Spanish Phonetics                                              |
| SPNS 308  | Intensive Spanish Abroad                                       |
| SPNS 321  | Advanced Conversations                                         |
| SPNS 326  | Contemporary Spanish Lit                                       |
| SPNS 331  | Cultures and Societies of Latin America                        |
| SPNS 355  | Topics in Spanish Literature and Culture                       |
| SPNS 400  | Introduction to Spanish Linguistics                            |
| SPNS 408  | Spanish: Advanced Composition & Conversation                   |
| SPNS 432  | Latin American Literature                                      |
| SPNS 465  | Spanish Literature: Renaissance and Golden Age                 |
| SPNS 466  | Spanish Literature: Modern & Contemporary                      |

**Total Hours****51-59**

## World Competencies Certificate

The Certificate in World Competencies will encourage students to be more informed about regions around the world. It will also hone their analytic, as well linguistic skills.

## General Certificate Requirements

Additional requirements for graduation can be found on the Degree/Certificate Requirements for Graduation page (p. 36).

Unless otherwise noted in individual program requirements, a minimum grade point average of 2.00 in all work attempted at the University of Montana-Missoula is required for graduation. Please see the Academic Policies and Procedures page (p. 25) for information on how your GPA is calculated.

Courses taken to satisfy the requirements of a major, minor, or certificate program must be completed with a grade of C- or better unless a higher grade is noted in the program requirements.

## Post-Secondary Certificate - World Competencies

- A programmatic international experience, for example, study abroad (<http://www.umt.edu/academic-enrichment/education-abroad/default.php>), can be applied to these requirements.

## Course Requirements

| Code                                                                                                                                       | Title                                                            | Hours |
|--------------------------------------------------------------------------------------------------------------------------------------------|------------------------------------------------------------------|-------|
| <b>Language Requirement</b>                                                                                                                |                                                                  |       |
| Complete the two-year 101-202 sequence in a single language: Arabic, Chinese, French, German, Greek, Japanese, Latin, Spanish, or Russian. |                                                                  | 16-20 |
| <b>Cultural Studies Requirement <sup>1</sup></b>                                                                                           |                                                                  |       |
| Complete one of the following courses:                                                                                                     |                                                                  | 3     |
| ARAB 305                                                                                                                                   | The Arab World                                                   |       |
| CHIN 313L                                                                                                                                  | Chinese Poetry in Translation                                    |       |
| CHIN 380                                                                                                                                   | Chinese Folktales                                                |       |
| CLAS 160L                                                                                                                                  | Classical Mythology                                              |       |
| CLAS 251L                                                                                                                                  | The Epic                                                         |       |
| CLAS 252L                                                                                                                                  | Greek Drama: Politics on Stage                                   |       |
| FRCH 310                                                                                                                                   | French Literature and Culture: Middle Ages and Renaissance       |       |
| FRCH 311                                                                                                                                   | French Literature and Culture: 17th Century                      |       |
| FRCH 312                                                                                                                                   | French Literature and Culture: 19th Century                      |       |
| FRCH 313                                                                                                                                   | French Literature and Culture: 20th Century                      |       |
| FRCH 338                                                                                                                                   | The French Cinema                                                |       |
| FRCH 339                                                                                                                                   | Survey of African Cinema                                         |       |
| FRCH 420                                                                                                                                   | Studies in French Prose                                          |       |
| FRCH 430                                                                                                                                   | Studies in French Drama                                          |       |
| GRMN 106H                                                                                                                                  | Introduction to German Culture and Civilization                  |       |
| GRMN 311                                                                                                                                   | Introduction to German Literature                                |       |
| GRMN 317L                                                                                                                                  | Introduction to Multicultural Literature in Contemporary Germany |       |
| GRMN 322L                                                                                                                                  | Survey of German Cinema                                          |       |
| GRMN 340L                                                                                                                                  | Nature and the Environment in German Literature and Film         |       |
| GRMN 350                                                                                                                                   | German Culture & Civilization                                    |       |
| GRMN 351H                                                                                                                                  | German Culture: Beginnings to Romanticism                        |       |
| GRMN 352H                                                                                                                                  | Germ Culture: Romanticism to the Present                         |       |
| GRMN 431                                                                                                                                   | German Literature 1760-1832                                      |       |
| GRMN 441                                                                                                                                   | 19th Century German Literature                                   |       |
| GRMN 451                                                                                                                                   | 20th and 21st Century German Literature                          |       |
| HSTR 302H                                                                                                                                  | Ancient Greece                                                   |       |



|           |                                                 |
|-----------|-------------------------------------------------|
| HSTR 304H | Ancient Rome                                    |
| HSTR 357  | Russia to 1881                                  |
| HSTR 358  | Russia Since 1881                               |
| JPNS 301  | Advanced Japanese                               |
| JPNS 302  | Advanced Japanese                               |
| JPNS 371  | Japanese Film and Anime                         |
| JPNS 411  | Modern Japanese Writers and Thinkers            |
| JPNS 412  | Introduction to Classical Japanese              |
| JPNS 415  | Advanced Japanese for Professionals             |
| JPNS 431  | Post-War Japanese Literature                    |
| RUSS 105Y | Intro to Russian Culture                        |
| RUSS 306L | Evil and the Supernatural in Russian Literature |
| RUSS 307L | Beauty, Power and Pride in Russian Literature   |
| RUSS 308  | Russian Cinema and Culture                      |
| RUSS 411  | 19th-Century Russian Authors                    |
| RUSS 412  | 20th-Century Russian Authors                    |
| RUSS 424  | Russian Short Story                             |
| RUSS 440  | Russian Poetry                                  |
| SPNS 301  | Spanish: Oral and Written Expression            |
| SPNS 315  | Topics in Hispanic Culture                      |
| SPNS 326  | Contemporary Spanish Lit                        |
| SPNS 331  | Cultures and Societies of Latin America         |

**Global/Regional Issues Requirement**

Complete one of the following courses: 3

|           |                                            |
|-----------|--------------------------------------------|
| ANTY 102H | Intro to South & S. East Asia              |
| ANTY 141H | The Silk Road                              |
| ANTY 241H | Central Asian Culture and Civilization     |
| ANTY 250S | Intro to Archaeology                       |
| ANTY 251  | Foundations of Civilization                |
| ANTY 254X | Archaeological Wonders of the World        |
| ANTY 330X | Peoples and Cultures of World              |
| ARTH 201H | Art of World Civilization: 1400 to Present |
| BGEN 360  | International Business                     |
| ENST 230H | Nature and Society                         |
| GPHY 121S | Human Geography                            |
| GPHY 141S | Geography of World Regions                 |
| GBLD 194  | Seminar                                    |
| GBLD 294  | Seminar                                    |
| HSTR 101H | Western Civilization I                     |
| HSTR 102H | Western Civilization II                    |
| HSTR 103H | Honors Western Civilization I              |
| HSTR 104H | Honors Western Civilization II             |
| HSTR 230H | Colonial Latin America                     |
| HSTR 231H | Modern Latin America                       |
| HSTR 240H | East Asian Civilizations                   |
| HSTR 262H | Islamic Civilization: Classical Age        |
| HSTR 272E | Terrorism: Violence in the Modern World    |
| HSTR 334  | Latin America: Reform & Revolution         |
| HSTR 368  | Iran Between Two Revolutions               |
| HSTR 386  | Nationalism and the Modern Middle East     |

|           |                                     |
|-----------|-------------------------------------|
| IRSH 249  | The Irish                           |
| IRSH 345L | Literature in the Irish Lang        |
| LIT 350L  | Chaucer                             |
| LIT 353L  | Milton                              |
| LIT 355   | British Romanticism                 |
| PSCI 220S | Intro to Comparative Government     |
| PSCI 230X | Intro to International Relations    |
| PSCI 311  | Revolution & Reform in Modern China |
| PSCI 322  | Politics of Europe                  |
| PSCI 325  | Politics of Latin America           |
| PSCI 326  | Politics of Africa                  |
| PSCI 327  | Politics of Mexico                  |
| PSCI 328  | Politics of China                   |
| PSCI 334  | International Security              |
| PSCI 336  | European Union                      |
| PSCI 337  | Model United Nations                |
| PSCI 381  | State Formation                     |
| SOCI 325  | Social Stratification               |

**Activities Requirement**

Participation is required in eight (8) campus activities with an international focus (these activities are not for credit). Examples of such activities could include participating club events; attending campus lectures that have an international focus; volunteering for Foreign Language Day; or going to cultural events (art exhibit, theater performance) that have an international theme. Students are required to retain documentation tracking participation/attendance of such activities, which will be signed by the WLC chair.

**Total Hours****22-26**

<sup>1</sup> The course meeting this requirement should be in the language or the area of expertise, taught either in English or the target language.

## College of Science

- Biological and Biomedical Sciences (p. 312)
  - Biology B.A. - Biological Education (p. 312)
  - Biology B.A. - Teacher Preparation General Science Broadfield (p. 314)
  - Interdisciplinary Biology B.A. (p. 316)
  - Biology B.S. - Ecology and Organismal Biology (p. 318)
  - Biology B.S. - Genetics and Evolution (p. 322)
  - Human Biology and Biomedical Sciences B.S. (p. 324)
  - Microbiology, Immunology, & Infectious Disease B.S. (p. 328)
  - Integrative Microbiology B.A. (p. 330)
  - Medical Laboratory Science B.S. (p. 332)
  - Neuroscience B.S. - Cellular and Molecular Neuroscience (p. 334)
  - Neuroscience B.S. - Cognitive Neuroscience (p. 336)
  - Biology Minor (p. 338)
  - Biological Education Minor (p. 338)
  - Microbiology Minor (p. 339)
  - Neuroscience Minor (p. 340)
- Chemistry & Biochemistry (p. 340)

- Biochemistry B.S. (p. 340)
- Biochemistry B.S. - Health Professions (p. 342)
- Biochemistry Minor (p. 344)
- Brewing Science C.A.S. (p. 344)
- Brewing Science C.T.S. (p. 345)
- Chemical Pharmacology Certificate (p. 345)
- Chemistry B.S. (p. 345)
- Chemistry B.S. - Forensic Chemistry (p. 347)
- Chemistry Education Minor (p. 348)
- Chemistry Minor (p. 349)
- Computer Science (p. 349)
  - Computer Science B.S. - Algorithm Design (p. 350)
  - Computer Science B.S. - Data Science (p. 351)
  - Computer Science B.S. - Software Engineering (p. 352)
  - Computer Science-Mathematical Sciences B.S. (Combined Major) (p. 353)
  - Computer Science Minor (p. 355)
  - Computer Programming Certificate (p. 355)
- Mathematical Sciences (p. 356)
  - Mathematical Sciences-Computer Science B.S. (Combined Major) (p. 356)
  - Mathematics B.A. (p. 358)
  - Mathematics B.A. - Applied Mathematics (p. 360)
  - Mathematics B.A. - Combinatorics and Optimization (p. 362)
  - Mathematics B.A. - Mathematics Education (p. 363)
  - Mathematics B.A. - Pure Mathematics (p. 365)
  - Mathematics B.A. - Statistics and Data Science (p. 366)
  - Mathematics Education Minor (p. 367)
  - Mathematics Minor (p. 368)
- Physics & Astronomy (p. 368)
  - Physics B.A. (p. 368)
  - Physics B.A. - Astronomy (p. 370)
  - Physics B.A. - Computational Physics (p. 371)
  - Physics B.A. - Engineering Physics (p. 372)
  - Physics B.A. - Physics Education (p. 374)
  - Physics B.A. - Teaching Broadfield Science (p. 376)
  - Astronomy Minor (p. 377)
  - Physics Minor (p. 378)
  - Physics Education Minor (p. 378)

- Biochemistry (an interdepartmental degree administered by the Chemistry Department)
- Neuroscience (an interdepartmental degree with the Psychology Department)

The Division also advises students in pre-health sciences and offers a series of summer field courses at the University's Flathead Lake Biological Station (<http://flbs.umt.edu/>), a year-round academic center for the ecological sciences located 85 miles north of Missoula near Kalispell and Glacier National Park. The Division is one of the leading research units in the University. Research programs in the Division provide abundant opportunities for students to enhance their educational experience by participating in mentored research. Several sources of funding are available to support undergraduate student research, and the Division participates in the University of Montana Conference on Undergraduate Research each spring.

The Division of Biological & Biomedical Sciences is committed to providing coursework and experiences for non-science majors. The world faces many problems and opportunities that include significant biological components. Courses for non-science majors have the goal of fostering understanding of the process of science and enhancing biological knowledge as it relates to environmental, medical, social, and other issues. The Division offers courses designed specifically for non-majors: Microbiology for Health Sciences, Introductory Ecology, Survey of Montana Wildlife and Habitats, and others.

- Biology B.A. - Biological Education (p. 312)
- Biology B.A. - Teacher Preparation General Science Broadfield (p. 314)
- Interdisciplinary Biology B.A. (p. 316)
- Biology B.S. - Ecology and Organismal Biology (p. 318)
- Biology B.S. - Genetics and Evolution (p. 322)
- Human Biology and Biomedical Sciences B.S. (p. 324)
- Microbiology, Immunology, & Infectious Disease B.S. (p. 328)
- Integrative Microbiology B.A. (p. 330)
- Medical Laboratory Science B.S. (p. 332)
- Neuroscience B.S. - Cellular and Molecular Neuroscience (p. 334)
- Neuroscience B.S. - Cognitive Neuroscience (p. 336)
- Biology Minor (p. 338)
- Biological Education Minor (p. 338)
- Microbiology Minor (p. 339)
- Neuroscience Minor (p. 340)

## Biological and Biomedical Sciences

The Division of Biological & Biomedical Sciences has undergraduate and graduate programs representing the full range of the biological sciences. The Division offers baccalaureate degrees in:

- Biology
- Interdisciplinary Biology
- Human Biology and Biomedical Sciences
- Medical Laboratory Science
- Microbiology, Immunology, and Infectious Disease
- Integrative Microbiology
- Wildlife Biology (a cooperative program administered by the College of Forestry and Conservation)

## Biology B.A. - Biological Education

This concentration provides students with coursework in biology and related sciences and mathematics needed to be certified by the State of Montana to teach secondary biology in middle and high school. This concentration is appropriate for students interested in teaching biology in a larger, more urban school. In order to be licensed to teach secondary biology, students must be admitted to the Teacher Education Program through the Phyllis J. Washington College of Education.

Individuals interested in teaching in K-12 schools must complete a degree in the content area they want to teach plus the Teacher Education Program through the Department of Teaching and Learning. Individuals must complete the teaching track within that degree program, which may contain different course requirements than the non-teaching track since the sequence of courses is designed to meet state standards.

Upon completion of the degree program with the teaching track and the secondary licensure program, one will be eligible for a standard Montana teaching license in this content area.

- Secondary Education Licensure Program (<https://www.umt.edu/education/departments/teaching-and-learning/tep/>)
- Licensure Degree Requirements (p. 151)

## General Degree Requirements

To earn a baccalaureate degree, all students must complete successfully, in addition to any other requirements, the University of Montana General Education Requirements. Please refer to the General Education Requirements page (p. 39) for more information.

Additional requirements for graduation can be found on the Degree/Certificate Requirements for Graduation page (p. 36).

Unless otherwise noted in individual program requirements, a minimum grade point average of 2.00 in all work attempted at the University of Montana-Missoula is required for graduation. Please see the Academic Policies and Procedures page (p. 25) for information on how your GPA is calculated.

Courses taken to satisfy the requirements of a major, minor, or certificate program must be completed with a grade of C- or better unless a higher grade is noted in the program requirements.

## Bachelor of Arts - Biology; Biological Education Concentration

- This major requires a minimum cumulative institutional GPA of 2.75.
- The lower-division core should be completed before attempting most upper division major courses. AP Biology credit with a score of 3 may be substituted for either BIOB 160/BIOB 161NorBIOB 170N/BIOB 171N.

### Course Requirements

| Code                                                                                  | Title                                   | Hours |
|---------------------------------------------------------------------------------------|-----------------------------------------|-------|
| <b>Biology/Microbiology Lower-Division Core</b>                                       |                                         |       |
| Complete all of the following courses:                                                |                                         |       |
| BIOB 160                                                                              | Principles of Living Systems            | 3     |
| BIOB 161N                                                                             | Principles of Living Systems Lab        | 1     |
| BIOB 170N                                                                             | Principles of Biological Diversity      | 3     |
| BIOB 171N                                                                             | Principles of Biological Diversity Lab  | 2     |
| BIOB 260                                                                              | Cellular and Molecular Biology          | 4     |
| BIOB 272                                                                              | Genetics and Evolution                  | 4     |
| <b>Upper-Division Core Courses Required by the Biological Education Concentration</b> |                                         |       |
| Complete all of the following courses:                                                |                                         |       |
| BIOE 370                                                                              | General Ecology                         | 3     |
| BIOE 371                                                                              | General Ecology Lab (equivalent to 271) | 2     |
| BIOM 360                                                                              | General Microbiology                    | 3     |
| BIOM 361                                                                              | General Microbiology Lab                | 2     |
| <b>Plant-Based Organismal Course Requirement</b>                                      |                                         |       |
| Complete one of the following courses:                                                |                                         |       |
| BIOE 448                                                                              | Terrestrial Plant Ecology               | 4-5   |
| BIOE 485                                                                              | Plant Evolution                         |       |
| BIOO 320                                                                              | General Botany                          |       |

|                                                   |                                                                                   |              |
|---------------------------------------------------|-----------------------------------------------------------------------------------|--------------|
| BIOO 433<br>& BIOO 434                            | Plant Physiology<br>and Plant Physiology Lab                                      |              |
| <b>Animal-Based Organismal Course Requirement</b> |                                                                                   |              |
| Complete one of the following courses:            |                                                                                   |              |
| BIOB 301                                          | Developmental Biology                                                             | 3-4          |
| BIOB 435                                          | Comparative Animal Physiology                                                     |              |
| BIOE 403                                          | Comparative Vertebrate Anatomy                                                    |              |
| <b>Mathematics</b>                                |                                                                                   |              |
| Complete all of the following courses:            |                                                                                   |              |
| M 162<br>or M 171                                 | Applied Calculus <sup>1</sup><br>Calculus I                                       | 4            |
| STAT 216                                          | Introduction to Statistics                                                        | 4            |
| <b>Chemistry</b>                                  |                                                                                   |              |
| Complete all of the following courses:            |                                                                                   |              |
| CHMY 121N                                         | Introduction to General Chemistry                                                 | 4            |
| CHMY 123                                          | Introduction to Organic and Biochemistry                                          | 4            |
| CHMY 124                                          | Introduction to Organic and Biochemistry Lab                                      | 2            |
| CHMY 485                                          | Laboratory Safety                                                                 | 1            |
| <b>Physics</b>                                    |                                                                                   |              |
| Complete one of the following Physics courses:    |                                                                                   |              |
| PHSX 205N<br>& PHSX 206N                          | College Physics I<br>and College Physics I Laboratory                             | 5            |
| PHSX 215N<br>& PHSX 216N                          | Fundamentals of Physics with Calculus I<br>and Physics Laboratory I with Calculus |              |
| <b>Environmental Geosciences</b>                  |                                                                                   |              |
| Complete one of the following courses:            |                                                                                   |              |
| ERTH 101N                                         | Earth Systems Science                                                             | 3            |
| GEO 105N                                          | Oceanography                                                                      |              |
| <b>Education Course</b>                           |                                                                                   |              |
| Complete the following course:                    |                                                                                   |              |
| EDU 497                                           | Teaching and Assessing (Methods: 5 - 12 Science)                                  | 3            |
| <b>Advanced Writing Requirement</b>               |                                                                                   |              |
| Complete all of the following courses:            |                                                                                   |              |
| BIOE 371                                          | General Ecology Lab (equivalent to 271)                                           | 2            |
| BIOO 434<br>or BIOO 320                           | Plant Physiology Lab<br>General Botany                                            | 1            |
| <b>Total Hours</b>                                |                                                                                   | <b>67-69</b> |

<sup>1</sup> Students should choose M 171 if they plan to take additional calculus courses or if they plan a double major or minor in a field that requires more calculus (e.g. astronomy, math, physics, biochemistry, computer science).

## Secondary Teaching Licensure

For endorsement to teach this subject, a student also must gain admission to the Teacher Education Program and meet all the requirements for secondary teaching licensure (p. 151). For more information, see the Teaching and Learning Department webpage (<https://www.umt.edu/education/departments/currinst/default.php>).

## Writing in the Disciplines Distributed Model Courses for Biological Sciences

| Code                                           | Title                                             | Hours |
|------------------------------------------------|---------------------------------------------------|-------|
| <b>1/3 Writing in the Disciplines Courses</b>  |                                                   |       |
| BCH 482                                        | Advanced Biochemistry II                          | 3     |
| BIOB 410                                       | Immunology                                        | 3     |
| BIOB 425                                       | Advanced Cellular & Molecular Biology             | 3     |
| BIOB 483                                       | Phylogenics and Evolution                         | 3     |
| BIOE 371                                       | General Ecology Lab (equivalent to 271)           | 2     |
| BIOE 403                                       | Comparative Vertebrate Anatomy                    | 4     |
| BIOE 428                                       | Freshwater Ecology                                | 5     |
| BIOH 447                                       | Genes and Development Lab                         | 3     |
| BIOM 327                                       | Vector-Borne Diseases: Public Health Perspectives | 3     |
| BIOM 435                                       | Virology                                          | 3     |
| BIOO 470                                       | Ornithology                                       | 4     |
| BIOO 475                                       | Mammalogy                                         | 4     |
| WILD 470                                       | Conservation of Wildlife Populations              | 4     |
| <b>2/3 Writing in the Disciplines Courses</b>  |                                                   |       |
| BCH 486                                        | Biochemistry Research Lab                         | 3     |
| BCH 499                                        | Senior Thesis/Capstone                            | 3-6   |
| BIOB 411                                       | Immunology Laboratory                             | 2     |
| BIOB 499                                       | Undergraduate Thesis                              | 3-6   |
| BIOE 448                                       | Terrestrial Plant Ecology                         | 4     |
| BIOE 485                                       | Plant Evolution                                   | 3     |
| BIOM 499                                       | Undergraduate Thesis                              | 3-6   |
| <b>Full Writing in the Disciplines Courses</b> |                                                   |       |
| BIOH 462                                       | Principles of Medical Physiology                  | 3     |
| BIOM 420                                       | Host-Microbe Interactions                         | 3     |

## Four Year Plan

| Course                        | Title                                                                                        | Hours     |
|-------------------------------|----------------------------------------------------------------------------------------------|-----------|
| <b>Freshman</b>               |                                                                                              |           |
| <b>Autumn</b>                 |                                                                                              |           |
| BIOB 160<br>& BIOB 161N       | Principles of Living Systems<br>and Principles of Living Systems Lab                         | 4         |
| BIOB 194                      | Your Future in Biology                                                                       | 1         |
| CHMY 121N                     | Introduction to General Chemistry                                                            | 4         |
| M 162<br>or M 171             | Applied Calculus<br>or Calculus I                                                            | 4         |
| WRIT 101                      | College Writing I                                                                            | 4         |
| <b>Hours</b>                  |                                                                                              | <b>17</b> |
| <b>Spring</b>                 |                                                                                              |           |
| BIOB 170N<br>& BIOB 171N      | Principles of Biological Diversity<br>and Principles of Biological Diversity Lab             | 5         |
| CHMY 123<br>& CHMY 124        | Introduction to Organic and Biochemistry<br>and Introduction to Organic and Biochemistry Lab | 6         |
| General Education Requirement |                                                                                              | 3         |
| <b>Hours</b>                  |                                                                                              | <b>14</b> |
| <b>Sophomore</b>              |                                                                                              |           |
| <b>Autumn</b>                 |                                                                                              |           |
| BIOB 260                      | Cellular and Molecular Biology                                                               | 4         |
| BIOM 360<br>& BIOM 361        | General Microbiology<br>and General Microbiology Lab                                         | 5         |
| CHMY 485                      | Laboratory Safety                                                                            | 1         |
| Intermediate Writing Course   |                                                                                              | 3         |

|                                    |                                                                |            |
|------------------------------------|----------------------------------------------------------------|------------|
| General Education Requirement      |                                                                | 3          |
| <b>Hours</b>                       |                                                                | <b>16</b>  |
| <b>Spring</b>                      |                                                                |            |
| BIOB 272                           | Genetics and Evolution                                         | 4          |
| STAT 216                           | Introduction to Statistics                                     | 4          |
| NASX 105H                          | Introduction to Native American Studies                        | 3          |
| General Education Requirement      |                                                                | 3          |
| <b>Hours</b>                       |                                                                | <b>14</b>  |
| <b>Junior</b>                      |                                                                |            |
| <b>Autumn</b>                      |                                                                |            |
| BIOE 370<br>& BIOE 371             | General Ecology<br>and General Ecology Lab (equivalent to 271) | 5          |
| EDU 346                            | Addressing the Needs of Diverse Learners                       | 3          |
| EDU 222                            | Educational Psychology and Child Development                   | 3          |
| EDU 444                            | Classroom Management in Secondary Schools                      | 3          |
| EDU 395                            | Clinical Experience (K-12 I)                                   | 1          |
| <b>Hours</b>                       |                                                                | <b>15</b>  |
| <b>Spring</b>                      |                                                                |            |
| EDU 382                            | Assessment, Curriculum, & Instruction                          | 3          |
| Major Elective (Animal Organismal) |                                                                | 3          |
| Major Elective (Plant Organismal)  |                                                                | 3          |
| Environmental GEO/ERTH Elective    |                                                                | 3          |
| General Education Requirement      |                                                                | 3          |
| <b>Hours</b>                       |                                                                | <b>15</b>  |
| <b>Senior</b>                      |                                                                |            |
| <b>Autumn</b>                      |                                                                |            |
| PHSX 205N<br>& PHSX 206N           | College Physics I<br>and College Physics I Laboratory          | 5          |
| EDU 395                            | Clinical Experience (K-12 II)                                  | 1          |
| EDU 407E                           | Ethics & Policy Issues                                         | 3          |
| EDU 481                            | Content Area Literacy                                          | 3          |
| EDU 497                            | Teaching and Assessing (5-12 Science)                          | 3          |
| <b>Hours</b>                       |                                                                | <b>15</b>  |
| <b>Spring</b>                      |                                                                |            |
| EDU 494                            | Seminar                                                        | 1          |
| EDU 495                            | Student Teaching                                               | 14         |
| <b>Hours</b>                       |                                                                | <b>15</b>  |
| <b>Total Hours</b>                 |                                                                | <b>121</b> |

*Last Updated Autumn 2025*

## Biology B.A. - Teacher Preparation General Science Broadfield

This concentration provides students with coursework in Biology, Chemistry, Physics, Earth Sciences and Mathematics needed to be certified by the State of Montana in broadfield science. This allows students to teach secondary sciences - Biology, Chemistry, Physics, and Earth Science in middle and high schools. This concentration is appropriate for students interested in teaching science in smaller, more rural schools. In order to be licensed to teach secondary science, students must be admitted to the Teacher Education Program through the Phyllis J. Washington College of Education and Human Sciences.

Individuals interested in teaching in K-12 schools must complete a degree in the content area they want to teach plus the Teacher Education Program through the Department of Teaching and Learning. Individuals must complete the teaching track within that degree program, which may contain different course requirements than the non-teaching track since the sequence of courses is designed to meet state standards. Upon completion of the degree program with the teaching track and the

secondary licensure program, one will be eligible for a standard Montana teaching license in this content area.

- Secondary Education Licensure Program (<https://www.umt.edu/education/departments/teaching-and-learning/tep/default.php>)
- Licensure Degree Requirements (p. 151)

## General Degree Requirements

To earn a baccalaureate degree, all students must complete successfully, in addition to any other requirements, the University of Montana General Education Requirements. Please refer to the General Education Requirements page (p. 39) for more information.

Additional requirements for graduation can be found on the Degree/Certificate Requirements for Graduation page (p. 36).

Unless otherwise noted in individual program requirements, a minimum grade point average of 2.00 in all work attempted at the University of Montana-Missoula is required for graduation. Please see the Academic Policies and Procedures page (p. 25) for information on how your GPA is calculated.

Courses taken to satisfy the requirements of a major, minor, or certificate program must be completed with a grade of C- or better unless a higher grade is noted in the program requirements.

## Bachelor of Arts - Biology; Teaching General Science Broadfield Concentration

- This major requires a minimum cumulative institutional GPA of 2.75.

### Course Requirements

| Code                                                                                                              | Title                                             | Hours |
|-------------------------------------------------------------------------------------------------------------------|---------------------------------------------------|-------|
| <b>Lower-Division Courses in the Content Areas - Biology, Chemistry, Earth Sciences, and Physics</b> <sup>1</sup> |                                                   |       |
| Biology Content Courses <sup>2</sup>                                                                              |                                                   |       |
| Complete all of the following courses:                                                                            |                                                   |       |
| BIOB 160                                                                                                          | Principles of Living Systems                      | 3     |
| BIOB 161N                                                                                                         | Principles of Living Systems Lab                  | 1     |
| BIOB 170N                                                                                                         | Principles of Biological Diversity                | 3     |
| BIOB 171N                                                                                                         | Principles of Biological Diversity Lab            | 2     |
| BIOB 260                                                                                                          | Cellular and Molecular Biology                    | 4     |
| BIOB 272                                                                                                          | Genetics and Evolution                            | 4     |
| Chemistry Content Courses <sup>3</sup>                                                                            |                                                   |       |
| Complete all of the following courses:                                                                            |                                                   |       |
| CHMY 123                                                                                                          | Introduction to Organic and Biochemistry          | 4     |
| CHMY 141N & CHMY 142N                                                                                             | College Chemistry I and College Chemistry I Lab   | 5     |
| CHMY 143N & CHMY 144N                                                                                             | College Chemistry II and College Chemistry II Lab | 5     |
| CHMY 485                                                                                                          | Laboratory Safety                                 | 1     |
| Earth Sciences Content Courses <sup>4</sup>                                                                       |                                                   |       |
| Complete all of the following courses:                                                                            |                                                   |       |
| ASTR 131N                                                                                                         | Planetary Astronomy                               | 3     |
| ASTR 134N                                                                                                         | Planetary Astronomy Lab                           | 1     |
| ERTH 101N                                                                                                         | Earth Systems Science                             | 3     |
| ERTH 103N                                                                                                         | Earth Systems Science Lab                         | 1     |

Geoscience Elective - Complete 1 course in Geoscience (GEO) 3

### Physics Content Courses

Complete one of the following Physics sequences: 10

Algebra- and Trigonometry-based Physics:

PHSX 205N College Physics I  
& PHSX 206N and College Physics I Laboratory

PHSX 207N College Physics II  
& PHSX 208N and College Physics II Laboratory

Calculus-based Physics:

PHSX 215N Fundamentals of Physics with Calculus I  
& PHSX 216N and Physics Laboratory I with Calculus

PHSX 217N Fundamentals of Physics with Calculus II  
& PHSX 218N and Physics Laboratory II with Calculus

### Upper-Division Content Courses

Complete all of the following courses:

BIOE 370 General Ecology 3

BIOE 371 General Ecology Lab (equivalent to 271) 2

### Mathematics - Calculus

Complete one of the following courses: 4

M 162 Applied Calculus

M 171 Calculus I

### Mathematics - Statistics

Complete the following course:

STAT 216 Introduction to Statistics 4

### Education Course

Complete the following course:

EDU 497 Teaching and Assessing (Methods: 5 - 12 Science) 4

### Writing in the Disciplines Requirement

To meet the Writing in the Disciplines Requirement, Biology students must complete 2 or 3 partial writing courses (either three 1/3 writing courses or one 1/3 writing course and one 2/3 writing course) or one complete writing course. 3-9

**Total Hours** 73-79

<sup>1</sup> A minimum of 10 credits is required in each of the four content areas.

<sup>2</sup> An AP Biology score of 3 will substitute for either BIOB 160/BIOB 161N or BIOB 170N/BIOB 171N.

<sup>3</sup> CHMY 141N/CHMY 142N & CHMY 143N/CHMY 144N should be completed before attempting CHMY 123.

<sup>4</sup> ASTR 132N/ASTR 135N are NOT acceptable substitutes for ASTR 131N/ASTR 134N.

## Writing in the Disciplines Distributed Model Courses for Biological Sciences

| Code                                          | Title                                   | Hours |
|-----------------------------------------------|-----------------------------------------|-------|
| <b>1/3 Writing in the Disciplines Courses</b> |                                         |       |
| BCH 482                                       | Advanced Biochemistry II                | 3     |
| BIOB 410                                      | Immunology                              | 3     |
| BIOB 425                                      | Advanced Cellular & Molecular Biology   | 3     |
| BIOB 483                                      | Phylogenetics and Evolution             | 3     |
| BIOE 371                                      | General Ecology Lab (equivalent to 271) | 2     |
| BIOE 403                                      | Comparative Vertebrate Anatomy          | 4     |
| BIOE 428                                      | Freshwater Ecology                      | 5     |



|          |                                                   |   |
|----------|---------------------------------------------------|---|
| BIOH 447 | Genes and Development Lab                         | 3 |
| BIOM 327 | Vector-Borne Diseases: Public Health Perspectives | 3 |
| BIOM 435 | Virology                                          | 3 |
| BIOO 470 | Ornithology                                       | 4 |
| BIOO 475 | Mammalogy                                         | 4 |
| WILD 470 | Conservation of Wildlife Populations              | 4 |

**2/3 Writing in the Disciplines Courses**

|          |                           |     |
|----------|---------------------------|-----|
| BCH 486  | Biochemistry Research Lab | 3   |
| BCH 499  | Senior Thesis/Capstone    | 3-6 |
| BIOB 411 | Immunology Laboratory     | 2   |
| BIOB 499 | Undergraduate Thesis      | 3-6 |
| BIOE 448 | Terrestrial Plant Ecology | 4   |
| BIOE 485 | Plant Evolution           | 3   |
| BIOM 499 | Undergraduate Thesis      | 3-6 |

**Full Writing in the Disciplines Courses**

|          |                                  |   |
|----------|----------------------------------|---|
| BIOH 462 | Principles of Medical Physiology | 3 |
| BIOM 420 | Host-Microbe Interactions        | 3 |

**Secondary Teaching Licensure**

For endorsement to teach this subject, a student also must gain admission to the Teacher Education Program and meet all the requirements for secondary teaching licensure (p. 151). For more information, see the Teaching and Learning Department webpage (<https://www.umt.edu/education/departments/currinst/default.php>).

**Four Year Plan**

| Course                                                  | Title                                                                            | Hours     |
|---------------------------------------------------------|----------------------------------------------------------------------------------|-----------|
| <b>Freshman</b>                                         |                                                                                  |           |
| <b>Autumn</b>                                           |                                                                                  |           |
| BIOB 160<br>& BIOB 161N                                 | Principles of Living Systems<br>and Principles of Living Systems Lab             | 4         |
| CHMY 141N<br>& CHMY 142N                                | College Chemistry I<br>and College Chemistry I Lab                               | 5         |
| M 162<br>or M 171                                       | Applied Calculus<br>or Calculus I                                                | 4         |
| BIOB 194                                                | Your Future in Biology                                                           | 1         |
| <b>Hours</b>                                            |                                                                                  | <b>14</b> |
| <b>Spring</b>                                           |                                                                                  |           |
| BIOB 170N<br>& BIOB 171N                                | Principles of Biological Diversity<br>and Principles of Biological Diversity Lab | 5         |
| CHMY 143N<br>& CHMY 144N                                | College Chemistry II<br>and College Chemistry II Lab                             | 5         |
| WRIT 101                                                | College Writing I                                                                | 4         |
| General Education Requirement                           |                                                                                  | 3         |
| <b>Hours</b>                                            |                                                                                  | <b>17</b> |
| <b>Sophomore</b>                                        |                                                                                  |           |
| <b>Autumn</b>                                           |                                                                                  |           |
| BIOB 260                                                | Cellular and Molecular Biology                                                   | 4         |
| NASX 105H                                               | Introduction to Native American Studies                                          | 3         |
| ASTR 131N<br>& ASTR 134N                                | Planetary Astronomy<br>and Planetary Astronomy Lab                               | 4         |
| Intermediate Writing Course/Literary & Artistic Studies |                                                                                  | 3         |
| General Education Requirement                           |                                                                                  | 3         |
| <b>Hours</b>                                            |                                                                                  | <b>17</b> |
| <b>Spring</b>                                           |                                                                                  |           |
| BIOB 272                                                | Genetics and Evolution                                                           | 4         |
| CHMY 123                                                | Introduction to Organic and Biochemistry                                         | 4         |

|                           |                                                        |           |
|---------------------------|--------------------------------------------------------|-----------|
| ERTH 101N<br>& EARTH 103N | Earth Systems Science<br>and Earth Systems Science Lab | 4         |
| STAT 216                  | Introduction to Statistics                             | 4         |
| <b>Hours</b>              |                                                        | <b>16</b> |

**Junior****Autumn**

|                          |                                                       |   |
|--------------------------|-------------------------------------------------------|---|
| PHSX 205N<br>& PHSX 206N | College Physics I<br>and College Physics I Laboratory | 5 |
| EDU 395                  | Clinical Experience (K-12 I)                          | 1 |
| EDU 222                  | Educational Psychology and Child Development          | 3 |
| EDU 444                  | Classroom Management in Secondary Schools             | 3 |
| EDU 346                  | Addressing the Needs of Diverse Learners              | 3 |

**Hours****15****Spring**

|                                             |                                                         |   |
|---------------------------------------------|---------------------------------------------------------|---|
| PHSX 207N<br>& PHSX 208N                    | College Physics II<br>and College Physics II Laboratory | 5 |
| EDU 382                                     | Assessment, Curriculum, & Instruction                   | 3 |
| Major Elective - Writing in the Disciplines |                                                         | 3 |
| GEO Elective                                |                                                         | 3 |
| General Education Requirement               |                                                         | 3 |

**Hours****17****Senior****Autumn**

|                        |                                                                |   |
|------------------------|----------------------------------------------------------------|---|
| BIOE 370<br>& BIOE 371 | General Ecology<br>and General Ecology Lab (equivalent to 271) | 5 |
| CHMY 485               | Laboratory Safety                                              | 1 |
| EDU 395                | Clinical Experience (K-12 II)                                  | 1 |
| EDU 407E               | Ethics & Policy Issues                                         | 3 |
| EDU 481                | Content Area Literacy                                          | 3 |
| EDU 497                | Teaching and Assessing (K-12 Science)                          | 3 |

**Hours****16****Spring**

|         |                  |    |
|---------|------------------|----|
| EDU 494 | Seminar          | 1  |
| EDU 495 | Student Teaching | 14 |

**Hours****15****Total Hours****127***Last Updated Autumn 2025***Interdisciplinary Biology B.A.**

The B.A. in Interdisciplinary Biology is designed for students who seek an interdisciplinary science program. This major is not research-oriented and is not considered a preparatory program for traditional research-based graduate programs. It is, however, designed for students seeking careers in environmental education, science writing, journalism or illustration, business, programming, wildlife film-making, or natural history centers and museums. There is enough latitude in the requirements to allow for a minor or even a double major in a related field of interest (e.g. journalism, art, computer science, media arts, etc.).

**General Degree Requirements**

To earn a baccalaureate degree, all students must complete successfully, in addition to any other requirements, the University of Montana General Education Requirements. Please refer to the General Education Requirements page (p. 39) for more information.

Additional requirements for graduation can be found on the Degree/Certificate Requirements for Graduation page (p. 36).

Unless otherwise noted in individual program requirements, a minimum grade point average of 2.00 in all work attempted at the University of

Montana-Missoula is required for graduation. Please see the Academic Policies and Procedures page (p. 25) for information on how your GPA is calculated.

Courses taken to satisfy the requirements of a major, minor, or certificate program must be completed with a grade of C- or better unless a higher grade is noted in the program requirements.

## Bachelor of Arts - Interdisciplinary Biology

The lower-division core should be completed before attempting most upper-division major courses. AP Biology credit with a score of 3 may be substituted for either BIOB 160 /BIOB 161NorBIOB 170N/BIOB 171N.

### Course Requirements

| Code                                                                                                                                                   | Title                                  | Hours |
|--------------------------------------------------------------------------------------------------------------------------------------------------------|----------------------------------------|-------|
| <b>Core Courses</b>                                                                                                                                    |                                        |       |
| Complete all of the following courses:                                                                                                                 |                                        |       |
| BIOB 160                                                                                                                                               | Principles of Living Systems           | 3     |
| BIOB 161N                                                                                                                                              | Principles of Living Systems Lab       | 1     |
| BIOB 170N                                                                                                                                              | Principles of Biological Diversity     | 3     |
| BIOB 171N                                                                                                                                              | Principles of Biological Diversity Lab | 2     |
| BIOB 194                                                                                                                                               | Your Future in Biology                 | 1     |
| BIOB 272                                                                                                                                               | Genetics and Evolution                 | 4     |
| Complete one of the following Ecology courses:                                                                                                         |                                        | 3-5   |
| BIOE 172N                                                                                                                                              | Introductory Ecology                   |       |
| BIOE 342                                                                                                                                               | Field Ecology                          |       |
| BIOE 370                                                                                                                                               | General Ecology                        |       |
| <b>Electives</b>                                                                                                                                       |                                        |       |
| Complete 25 credits of upper-division (300-level or above) credits in the biological sciences. This includes courses with the following subject codes: |                                        | 25    |
| BIOB - General                                                                                                                                         |                                        |       |
| BIOE - Ecological                                                                                                                                      |                                        |       |
| BIOH - Human                                                                                                                                           |                                        |       |
| BIOM - Microbiology                                                                                                                                    |                                        |       |
| BIOO - Organismal                                                                                                                                      |                                        |       |
| BCH - Biochemistry                                                                                                                                     |                                        |       |
| NEUR - Neuroscience                                                                                                                                    |                                        |       |
| WILD 346                                                                                                                                               | Wildlife Physiological Ecology         |       |
| <b>Chemistry and Mathematics</b>                                                                                                                       |                                        |       |
| Complete all of the following courses:                                                                                                                 |                                        |       |
| CHMY 121N                                                                                                                                              | Introduction to General Chemistry      | 4     |
| M 121                                                                                                                                                  | College Algebra                        | 3     |
| or M 122                                                                                                                                               | College Trigonometry                   |       |
| or M 151                                                                                                                                               | Precalculus                            |       |
| or M 162                                                                                                                                               | Applied Calculus                       |       |
| or M 171                                                                                                                                               | Calculus I                             |       |
| <b>Interdisciplinary Electives</b> <sup>1</sup>                                                                                                        |                                        |       |
| Complete 12 credits of courses in the following areas. Credits may be combined among disciplines.                                                      |                                        | 12    |
| <b>Art</b>                                                                                                                                             |                                        |       |
| ARTZ 211A                                                                                                                                              | Drawing I                              |       |
| ARTZ 214                                                                                                                                               | Illustration                           |       |

|                                               |                                                                            |
|-----------------------------------------------|----------------------------------------------------------------------------|
| ARTZ 221A                                     | Painting I                                                                 |
| ARTZ 231A                                     | Ceramics I                                                                 |
| ARTZ 251A                                     | Sculpture I                                                                |
| ARTZ 284A                                     | Photography I: Technologies and Processes                                  |
| ARTZ 314A                                     | Environmental Drawing                                                      |
| <b>Business and Analytics</b>                 |                                                                            |
| BGEN 105S                                     | Introduction to Business                                                   |
| BGEN 220E                                     | Business Ethics and Social Responsibility                                  |
| BMIS 270                                      | MIS Foundations for Business                                               |
| BMIS 326                                      | Introduction to Data Analytics                                             |
| ECNS 201S                                     | Principles of Microeconomics                                               |
| <b>Computer Science</b>                       |                                                                            |
| CSCI 150                                      | Introduction to Computer Science                                           |
| CSCI 151                                      | Interdisciplinary Computer Science I                                       |
| CSCI 152                                      | Interdisciplinary Computer Science II                                      |
| CSCI 232                                      | Intermediate Data Structures and Algorithms                                |
| CSCI 451                                      | Computational Biology                                                      |
| <b>Journalism</b>                             |                                                                            |
| JRNL 100H                                     | Journalism and American Society                                            |
| JRNL 140A                                     | Intro Radio/Audio Storytelling                                             |
| JRNL 170                                      | Writing the News                                                           |
| JRNL 257A                                     | Beginning Video and Photojournalism                                        |
| JRNL 270                                      | Reporting the News                                                         |
| JRNL 331                                      | Digital and Interactive Reporting                                          |
| JRNL 384                                      | Documentary Film History                                                   |
| <b>Media Arts</b>                             |                                                                            |
| MART 101L                                     | Intro to Media Arts                                                        |
| MART 112A                                     | Introduction to Film Editing                                               |
| MART 245                                      | Sound Production & Design Fundamentals                                     |
| MART 255                                      | Photoshop: Art and Design                                                  |
| MART 256                                      | Illustrator: Vector and Layout Design                                      |
| MART 341                                      | Introduction to Web Design                                                 |
| <b>Natural History</b>                        |                                                                            |
| ASTR 131N                                     | Planetary Astronomy                                                        |
| ASTR 132N                                     | Stars, Galaxies, and the Universe                                          |
| ASTR 134N                                     | Planetary Astronomy Lab                                                    |
| ASTR 135N                                     | Stars, Galaxies, and the Universe Lab                                      |
| ASTR 142N                                     | The Evolving Universe                                                      |
| ERTH 101N                                     | Earth Systems Science                                                      |
| ERTH 103N                                     | Earth Systems Science Lab                                                  |
| GEO 201                                       | The Rocky Planet                                                           |
| GEO 202                                       | The Water Planet                                                           |
| GEO 318                                       | Earth's Changing Climate                                                   |
| GPHY 111N                                     | Intro to Physical Geography: Climate, Landforms, and Vegetation            |
| GPHY 112N                                     | Intro to Physical Geography Laboratory: Climate, Landforms, and Vegetation |
| GPHY 311N                                     | Biogeography                                                               |
| <b>Writing in the Disciplines Requirement</b> |                                                                            |

To complete the General Education Requirement for Writing in the Disciplines, Interdisciplinary Biology students can either take a complete writing course (in or outside of DBS) or partial writing courses (2-3) within the DBS Distributed Model.

|                    |              |
|--------------------|--------------|
| <b>Total Hours</b> | <b>61-63</b> |
|--------------------|--------------|

Writing in the Disciplines Distributed Model Courses for Biological Sciences

| Code                                          | Title                                             | Hours |
|-----------------------------------------------|---------------------------------------------------|-------|
| <b>1/3 Writing in the Disciplines Courses</b> |                                                   |       |
| BCH 482                                       | Advanced Biochemistry II                          | 3     |
| BIOB 410                                      | Immunology                                        | 3     |
| BIOB 425                                      | Advanced Cellular & Molecular Biology             | 3     |
| BIOB 483                                      | Phylogenics and Evolution                         | 3     |
| BIOE 371                                      | General Ecology Lab (equivalent to 271)           | 2     |
| BIOE 403                                      | Comparative Vertebrate Anatomy                    | 4     |
| BIOE 428                                      | Freshwater Ecology                                | 5     |
| BIOH 447                                      | Genes and Development Lab                         | 3     |
| BIOM 327                                      | Vector-Borne Diseases: Public Health Perspectives | 3     |
| BIOM 435                                      | Virology                                          | 3     |
| BIOO 470                                      | Ornithology                                       | 4     |
| BIOO 475                                      | Mammalogy                                         | 4     |
| WILD 470                                      | Conservation of Wildlife Populations              | 4     |

|                                               |                           |     |
|-----------------------------------------------|---------------------------|-----|
| <b>2/3 Writing in the Disciplines Courses</b> |                           |     |
| BCH 486                                       | Biochemistry Research Lab | 3   |
| BCH 499                                       | Senior Thesis/Capstone    | 3-6 |
| BIOB 411                                      | Immunology Laboratory     | 2   |
| BIOB 499                                      | Undergraduate Thesis      | 3-6 |
| BIOE 448                                      | Terrestrial Plant Ecology | 4   |
| BIOE 485                                      | Plant Evolution           | 3   |
| BIOM 499                                      | Undergraduate Thesis      | 3-6 |

|                                                |                                  |   |
|------------------------------------------------|----------------------------------|---|
| <b>Full Writing in the Disciplines Courses</b> |                                  |   |
| BIOH 462                                       | Principles of Medical Physiology | 3 |
| BIOM 420                                       | Host-Microbe Interactions        | 3 |

Four Year Plan

| Course                                    | Title                                                                                    | Hours        |
|-------------------------------------------|------------------------------------------------------------------------------------------|--------------|
| <b>Freshman</b>                           |                                                                                          |              |
| <b>Autumn</b>                             |                                                                                          |              |
| BIOB 160 & BIOB 161N                      | Principles of Living Systems and Principles of Living Systems Lab                        | 4            |
| CHMY 121N                                 | Introduction to General Chemistry                                                        | 4            |
| M 121 or M 122 or M 151 or M 162 or M 171 | College Algebra or College Trigonometry or Precalculus or Applied Calculus or Calculus I | 3-4          |
| WRIT 101                                  | College Writing I                                                                        | 4            |
| BIOB 194                                  | Your Future in Biology                                                                   | 1            |
| <b>Hours</b>                              |                                                                                          | <b>16-17</b> |
| <b>Spring</b>                             |                                                                                          |              |
| BIOB 170N & BIOB 171N                     | Principles of Biological Diversity and Principles of Biological Diversity Lab            | 5            |
| Interdisciplinary Elective                |                                                                                          | 3            |
| General Education Requirement             |                                                                                          | 3            |

|                               |                                    |         |
|-------------------------------|------------------------------------|---------|
| Elective                      |                                    | 4       |
| Hours                         |                                    | 15      |
| Sophomore                     |                                    |         |
| Autumn                        |                                    |         |
| Interdisciplinary Elective    |                                    | 3       |
| Language 101                  |                                    | 4-5     |
| Intermediate Writing Course   |                                    | 3       |
| Elective                      |                                    | 6       |
| Hours                         |                                    | 16-17   |
| Spring                        |                                    |         |
| BIOB 272                      | Genetics and Evolution             | 4       |
| BIOE 172N                     | Introductory Ecology <sup>1</sup>  | 3       |
| Language 102                  |                                    | 4-5     |
| General Education Requirement |                                    | 3       |
| Hours                         |                                    | 14-15   |
| Junior                        |                                    |         |
| Autumn                        |                                    |         |
| BIOE 370                      | General Ecology <sup>1</sup>       | 3       |
| BIOO 475                      | Mammalogy                          | 4       |
| General Education Requirement |                                    | 3       |
| Elective                      |                                    | 5       |
| Hours                         |                                    | 15      |
| Spring                        |                                    |         |
| BIOO 335                      | Rocky Mountain Flora <sup>1</sup>  | 4       |
| BIOO 470                      | Ornithology <sup>1</sup>           | 4       |
| Interdisciplinary Elective    |                                    | 3       |
| General Education Requirement |                                    | 3       |
| Elective                      |                                    | 1       |
| Hours                         |                                    | 15      |
| Senior                        |                                    |         |
| Autumn                        |                                    |         |
| BIOE 406                      | Behavior & Evolution <sup>1</sup>  | 4       |
| BIOB 480                      | Conservation Genetics <sup>1</sup> | 3       |
| Upper Division Elective       |                                    | 8       |
| Hours                         |                                    | 15      |
| Spring                        |                                    |         |
| BIOE 447                      | Ecosystem Ecology <sup>1</sup>     | 3       |
| Interdisciplinary Elective    |                                    | 3       |
| General Education Requirement |                                    | 3       |
| Upper Division Elective       |                                    | 6       |
| Hours                         |                                    | 15      |
| Total Hours                   |                                    | 121-124 |

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<sup>1</sup> Indicates you have a choice of alternative courses for degree completion. See catalog, Degree Works, or your advisor for other options.

Biology B.S. - Ecology and Organismal Biology

The Ecology and Organismal Biology concentration is for students interested in the biology of organisms (plants or animals) or the biology of populations or communities. Course offerings include those from organismal biology, ecology, evolutionary biology, and conservation biology. This concentration is a graduate preparatory program and it is designed for students interested in academia or employment with government or environmental consulting agencies. This concentration is also an excellent choice for pre-veterinary students.

## General Degree Requirements

To earn a baccalaureate degree, all students must complete successfully, in addition to any other requirements, the University of Montana General Education Requirements. Please refer to the General Education Requirements page (p. 39) for more information.

Additional requirements for graduation can be found on the Degree/Certificate Requirements for Graduation page (p. 36).

Unless otherwise noted in individual program requirements, a minimum grade point average of 2.00 in all work attempted at the University of Montana-Missoula is required for graduation. Please see the Academic Policies and Procedures page (p. 25) for information on how your GPA is calculated.

Courses taken to satisfy the requirements of a major, minor, or certificate program must be completed with a grade of C- or better unless a higher grade is noted in the program requirements.

## Bachelor of Science - Biology; Ecology and Organismal Biology Concentration

### Course Requirements

| Code                                                                                                                                                                                                                                                              | Title                                                       | Hours |
|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-------------------------------------------------------------|-------|
| <b>Biology/Microbiology Lower-Division Core</b>                                                                                                                                                                                                                   |                                                             |       |
| Complete all of the following courses:                                                                                                                                                                                                                            |                                                             |       |
| BIOB 160                                                                                                                                                                                                                                                          | Principles of Living Systems                                | 3     |
| BIOB 161N                                                                                                                                                                                                                                                         | Principles of Living Systems Lab                            | 1     |
| BIOB 170N                                                                                                                                                                                                                                                         | Principles of Biological Diversity                          | 3     |
| BIOB 171N                                                                                                                                                                                                                                                         | Principles of Biological Diversity Lab                      | 2     |
| BIOB 260                                                                                                                                                                                                                                                          | Cellular and Molecular Biology                              | 4     |
| BIOB 272                                                                                                                                                                                                                                                          | Genetics and Evolution                                      | 4     |
| <b>Upper-Division Core Courses Required by Ecology &amp; Organismal Biology Concentration</b>                                                                                                                                                                     |                                                             |       |
| Complete one of the following courses:                                                                                                                                                                                                                            |                                                             | 5     |
| BIOE 370 & BIOE 371                                                                                                                                                                                                                                               | General Ecology and General Ecology Lab (equivalent to 271) |       |
| BIOE 342                                                                                                                                                                                                                                                          | Field Ecology                                               |       |
| <b>Additional Upper-Division Courses Required for the Ecology &amp; Organismal Biology Concentration</b>                                                                                                                                                          |                                                             |       |
| Complete a minimum of 21 credits of upper-division BIOB, BIOE, BIOH, BIOL, BIOM, BIOO, or BCH course, with at least one course from each of the following subcategories. Other recommended courses include BCH 380 or BCH 480-BCH 482. 21 total credits required. |                                                             | 21    |
| <b>Organismal Course Requirement</b>                                                                                                                                                                                                                              |                                                             |       |
| Complete at least one organismal course (lab must also be taken, if available) from the following list:                                                                                                                                                           |                                                             |       |
| BIOB 301                                                                                                                                                                                                                                                          | Developmental Biology                                       |       |
| BIOB 375                                                                                                                                                                                                                                                          | General Genetics                                            |       |
| BIOB 435                                                                                                                                                                                                                                                          | Comparative Animal Physiology                               |       |
| BIOB 468                                                                                                                                                                                                                                                          | Endocrinology                                               |       |
| BIOE 403                                                                                                                                                                                                                                                          | Comparative Vertebrate Anatomy                              |       |
| BIOO 433 & BIOO 434                                                                                                                                                                                                                                               | Plant Physiology and Plant Physiology Lab                   |       |

### -Ology Course Requirement

Complete at least one course with a focus on a group of organisms (lab must also be taken, if available) from the following list:

|                     |                                                   |
|---------------------|---------------------------------------------------|
| BIOM 360 & BIOM 361 | General Microbiology and General Microbiology Lab |
| BIOM 427 & BIOM 428 | General Parasitology and General Parasitology Lab |
| BIOO 320            | General Botany                                    |
| BIOO 335            | Rocky Mountain Flora                              |
| BIOO 340            | Biology and Management of Fishes                  |
| BIOO 462            | Entomology                                        |
| BIOO 470            | Ornithology                                       |
| BIOO 475            | Mammalogy                                         |

### Specialized Ecology Course Requirement

Complete one of the following courses:

|          |                                                                            |
|----------|----------------------------------------------------------------------------|
| BIOE 400 | Aquatic Microbial Ecology (Flathead Lake Biological Station - summer only) |
| BIOE 416 | Alpine Ecology (Flathead Lake Biological Station - summer only)            |
| BIOE 428 | Freshwater Ecology                                                         |
| BIOE 439 | Stream Ecology (Flathead Lake Biological Station - summer only)            |
| BIOE 440 | Conservation Biology (Flathead Lake Biological Station - summer only)      |
| BIOE 447 | Ecosystem Ecology                                                          |
| BIOE 448 | Terrestrial Plant Ecology                                                  |
| BIOE 451 | Landscape Ecology (Flathead Lake Biological Station - summer only)         |
| BIOE 453 | Lake Ecology (Flathead Lake Biological Station - summer only)              |
| BIOE 458 | Forest and Fire Ecology (Flathead Lake Biological Station - summer only)   |
| BIOM 415 | Microbial Diversity Ecology & Evolution                                    |
| BIOM 460 | Ecology of Infectious Diseases                                             |
| WILD 346 | Wildlife Physiological Ecology                                             |
| WILD 470 | Conservation of Wildlife Populations                                       |

### Evolution Course Requirement

Complete one of the following courses:

|          |                             |
|----------|-----------------------------|
| BIOB 480 | Conservation Genetics       |
| BIOB 483 | Phylogenetics and Evolution |
| BIOB 486 | Genomics                    |
| BIOE 406 | Behavior & Evolution        |
| BIOE 485 | Plant Evolution             |
| BIOM 420 | Host-Microbe Interactions   |

### Mathematics - Calculus <sup>2</sup>

Complete one of the following courses:

|       |                  |
|-------|------------------|
| M 162 | Applied Calculus |
| M 171 | Calculus I       |

### Mathematics - Statistics <sup>3</sup>

Complete either one semester or a full year of statistics from the following:

|               |                            |
|---------------|----------------------------|
| One Semester: |                            |
| STAT 216      | Introduction to Statistics |

|                                                                                                                                                                                                                                      |                                                                                           |
|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------------|
| Full Year:                                                                                                                                                                                                                           |                                                                                           |
| STAT 451 & STAT 452                                                                                                                                                                                                                  | Statistical Methods I and Statistical Methods II                                          |
| STAT 457 & STAT 458                                                                                                                                                                                                                  | Computer Data Analysis I and Computer Data Analysis II                                    |
| <b>Chemistry <sup>4</sup></b>                                                                                                                                                                                                        |                                                                                           |
| Complete one of the following sequences of general and organic chemistry:                                                                                                                                                            |                                                                                           |
| 10-20                                                                                                                                                                                                                                |                                                                                           |
| Introductory Chemistry (10 credits):                                                                                                                                                                                                 |                                                                                           |
| CHMY 121N                                                                                                                                                                                                                            | Introduction to General Chemistry                                                         |
| CHMY 123 & CHMY 124                                                                                                                                                                                                                  | Introduction to Organic and Biochemistry and Introduction to Organic and Biochemistry Lab |
| Advanced Chemistry (20 credits):                                                                                                                                                                                                     |                                                                                           |
| CHMY 141N & CHMY 142N                                                                                                                                                                                                                | College Chemistry I and College Chemistry I Lab                                           |
| CHMY 143N & CHMY 144N                                                                                                                                                                                                                | College Chemistry II and College Chemistry II Lab                                         |
| CHMY 221 & CHMY 222                                                                                                                                                                                                                  | Organic Chemistry I and Organic Chemistry I Lab                                           |
| CHMY 223 & CHMY 224                                                                                                                                                                                                                  | Organic Chemistry II and Organic Chemistry II Lab                                         |
| <b>Physics</b>                                                                                                                                                                                                                       |                                                                                           |
| Complete one of the following Physics sequences:                                                                                                                                                                                     |                                                                                           |
| 10                                                                                                                                                                                                                                   |                                                                                           |
| Algebra- and Trigonometry-based Physics:                                                                                                                                                                                             |                                                                                           |
| PHSX 205N & PHSX 206N                                                                                                                                                                                                                | College Physics I and College Physics I Laboratory                                        |
| PHSX 207N & PHSX 208N                                                                                                                                                                                                                | College Physics II and College Physics II Laboratory                                      |
| Calculus-based Physics:                                                                                                                                                                                                              |                                                                                           |
| PHSX 215N & PHSX 216N                                                                                                                                                                                                                | Fundamentals of Physics with Calculus I and Physics Laboratory I with Calculus            |
| PHSX 217N & PHSX 218N                                                                                                                                                                                                                | Fundamentals of Physics with Calculus II and Physics Laboratory II with Calculus          |
| <b>Writing in the Disciplines Requirement</b>                                                                                                                                                                                        |                                                                                           |
| To complete the Writing in the Disciplines Requirement, Biology students take 2 or 3 partial writing courses (either three 1/3 writing courses or one 1/3 writing course and one 2/3 writing course) or one complete writing course. |                                                                                           |
| 3-9                                                                                                                                                                                                                                  |                                                                                           |
| <b>Total Hours</b>                                                                                                                                                                                                                   | <b>74-94</b>                                                                              |

<sup>1</sup> The lower-division core should be completed before attempting most upper-division major courses. AP Biology credit with a score of 3 may be substituted for either BIOB 160/BIOB 161N or BIOB 170N/BIOB 171N.

<sup>2</sup> Students should choose M 171 if they plan to take additional calculus courses if they plan to double major or minor in a field that requires more calculus (e.g. astronomy, math, physics, biochemistry, computer science).

<sup>3</sup> Students should choose the full year of statistics for graduate preparation in ecology.

<sup>4</sup> Students who begin in the advanced chemistry sequence may substitute those courses for introductory sequence courses at the discretion of the major advisor. Students should choose the advanced sequence for graduate preparation in organismal biology or pre-veterinary medicine.

|                                                                                     |                                                                                           |              |
|-------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------------|--------------|
| <b>Writing in the Disciplines Distributed Model Courses for Biological Sciences</b> |                                                                                           |              |
| <b>Code</b>                                                                         | <b>Title</b>                                                                              | <b>Hours</b> |
| <b>1/3 Writing in the Disciplines Courses</b>                                       |                                                                                           |              |
| BCH 482                                                                             | Advanced Biochemistry II                                                                  | 3            |
| BIOB 410                                                                            | Immunology                                                                                | 3            |
| BIOB 425                                                                            | Advanced Cellular & Molecular Biology                                                     | 3            |
| BIOB 483                                                                            | Phylogenics and Evolution                                                                 | 3            |
| BIOE 371                                                                            | General Ecology Lab (equivalent to 271)                                                   | 2            |
| BIOE 403                                                                            | Comparative Vertebrate Anatomy                                                            | 4            |
| BIOE 428                                                                            | Freshwater Ecology                                                                        | 5            |
| BIOH 447                                                                            | Genes and Development Lab                                                                 | 3            |
| BIOM 327                                                                            | Vector-Borne Diseases: Public Health Perspectives                                         | 3            |
| BIOM 435                                                                            | Virology                                                                                  | 3            |
| BIOO 470                                                                            | Ornithology                                                                               | 4            |
| BIOO 475                                                                            | Mammalogy                                                                                 | 4            |
| WILD 470                                                                            | Conservation of Wildlife Populations                                                      | 4            |
| <b>2/3 Writing in the Disciplines Courses</b>                                       |                                                                                           |              |
| BCH 486                                                                             | Biochemistry Research Lab                                                                 | 3            |
| BCH 499                                                                             | Senior Thesis/Capstone                                                                    | 3-6          |
| BIOB 411                                                                            | Immunology Laboratory                                                                     | 2            |
| BIOB 499                                                                            | Undergraduate Thesis                                                                      | 3-6          |
| BIOE 448                                                                            | Terrestrial Plant Ecology                                                                 | 4            |
| BIOE 485                                                                            | Plant Evolution                                                                           | 3            |
| BIOM 499                                                                            | Undergraduate Thesis                                                                      | 3-6          |
| <b>Full Writing in the Disciplines Courses</b>                                      |                                                                                           |              |
| BIOH 462                                                                            | Principles of Medical Physiology                                                          | 3            |
| BIOM 420                                                                            | Host-Microbe Interactions                                                                 | 3            |
| <b>Track 1: Introductory Chemistry (ecology/field biology)</b>                      |                                                                                           |              |
| <b>Course</b>                                                                       | <b>Title</b>                                                                              | <b>Hours</b> |
| <b>Freshman</b>                                                                     |                                                                                           |              |
| <b>Autumn</b>                                                                       |                                                                                           |              |
| BIOB 160 & BIOB 161N                                                                | Principles of Living Systems and Principles of Living Systems Lab                         | 4            |
| BIOB 194                                                                            | Your Future in Biology                                                                    | 1            |
| CHMY 121N                                                                           | Introduction to General Chemistry                                                         | 4            |
| M 171 or M 162                                                                      | Calculus I or Applied Calculus                                                            | 4            |
| WRIT 101                                                                            | College Writing I                                                                         | 4            |
| <b>Hours</b>                                                                        |                                                                                           | <b>17</b>    |
| <b>Spring</b>                                                                       |                                                                                           |              |
| BIOB 170N & BIOB 171N                                                               | Principles of Biological Diversity and Principles of Biological Diversity Lab             | 5            |
| CHMY 123 & CHMY 124                                                                 | Introduction to Organic and Biochemistry and Introduction to Organic and Biochemistry Lab | 6            |
| General Education Requirement                                                       |                                                                                           | 3            |
| <b>Hours</b>                                                                        |                                                                                           | <b>14</b>    |
| <b>Sophomore</b>                                                                    |                                                                                           |              |
| <b>Autumn</b>                                                                       |                                                                                           |              |
| BIOB 260                                                                            | Cellular and Molecular Biology                                                            | 4            |
| General Education Requirement                                                       |                                                                                           | 3            |
| Intermediate Writing Course                                                         |                                                                                           | 3            |



|                                                                                                                                                                 |                                                                                                                                                                                                                                                                                           |                |
|-----------------------------------------------------------------------------------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|----------------|
| Elective                                                                                                                                                        |                                                                                                                                                                                                                                                                                           | 5              |
| <b>Hours</b>                                                                                                                                                    |                                                                                                                                                                                                                                                                                           | <b>15</b>      |
| <b>Spring</b>                                                                                                                                                   |                                                                                                                                                                                                                                                                                           |                |
| BIOB 272                                                                                                                                                        | Genetics and Evolution                                                                                                                                                                                                                                                                    | 4              |
| STAT 216                                                                                                                                                        | Introduction to Statistics                                                                                                                                                                                                                                                                | 4              |
| General Education Requirement                                                                                                                                   |                                                                                                                                                                                                                                                                                           | 3              |
| Elective                                                                                                                                                        |                                                                                                                                                                                                                                                                                           | 4              |
| <b>Hours</b>                                                                                                                                                    |                                                                                                                                                                                                                                                                                           | <b>15</b>      |
| <b>Junior</b>                                                                                                                                                   |                                                                                                                                                                                                                                                                                           |                |
| <b>Autumn</b>                                                                                                                                                   |                                                                                                                                                                                                                                                                                           |                |
| BIOE 370<br>& BIOE 371                                                                                                                                          | General Ecology<br>and General Ecology Lab (equivalent to 271)                                                                                                                                                                                                                            | 5              |
| PHSX 205N<br>& PHSX 206N                                                                                                                                        | College Physics I<br>and College Physics I Laboratory                                                                                                                                                                                                                                     | 5              |
| General Education Requirement                                                                                                                                   |                                                                                                                                                                                                                                                                                           | 3              |
| Upper Division Elective                                                                                                                                         |                                                                                                                                                                                                                                                                                           | 3              |
| <b>Hours</b>                                                                                                                                                    |                                                                                                                                                                                                                                                                                           | <b>16</b>      |
| <b>Spring</b>                                                                                                                                                   |                                                                                                                                                                                                                                                                                           |                |
| BIOB 480<br>or BIOB 483<br>or BIOB 486<br>or BIOE 406<br>or BIOE 485<br>or BIOM 420                                                                             | Conservation Genetics (Evolution Elective)<br>or Phylogenetics and Evolution<br>or Genomics<br>or Behavior & Evolution<br>or Plant Evolution<br>or Host-Microbe Interactions                                                                                                              | 3              |
| BIOE 428<br>or BIOE 447<br>or BIOE 448<br>or BIOM 415<br>or BIOM 460<br>or WILD 346<br>or WILD 470                                                              | Freshwater Ecology (Specialized Ecology Elective) <sup>1</sup><br>or Ecosystem Ecology<br>or Terrestrial Plant Ecology<br>or Microbial Diversity Ecology & Evolution<br>or Ecology of Infectious Diseases<br>or Wildlife Physiological Ecology<br>or Conservation of Wildlife Populations | 3-5            |
| PHSX 207N<br>& PHSX 208N                                                                                                                                        | College Physics II<br>and College Physics II Laboratory                                                                                                                                                                                                                                   | 5              |
| General Education Requirement                                                                                                                                   |                                                                                                                                                                                                                                                                                           | 3              |
| <b>Hours</b>                                                                                                                                                    |                                                                                                                                                                                                                                                                                           | <b>14-16</b>   |
| <b>Senior</b>                                                                                                                                                   |                                                                                                                                                                                                                                                                                           |                |
| <b>Autumn</b>                                                                                                                                                   |                                                                                                                                                                                                                                                                                           |                |
| Major Elective (BIO_ 300+)                                                                                                                                      |                                                                                                                                                                                                                                                                                           | 4              |
| Major Elective (BIO_ 300+) - Advanced Writing                                                                                                                   |                                                                                                                                                                                                                                                                                           | 4              |
| Upper Division Elective                                                                                                                                         |                                                                                                                                                                                                                                                                                           | 6              |
| Elective                                                                                                                                                        |                                                                                                                                                                                                                                                                                           | 1              |
| <b>Hours</b>                                                                                                                                                    |                                                                                                                                                                                                                                                                                           | <b>15</b>      |
| <b>Spring</b>                                                                                                                                                   |                                                                                                                                                                                                                                                                                           |                |
| BIOB 301<br>or BIOB 375<br>or BIOB 435<br>or BIOB 468<br>or BIOE 403<br>or BIOO 433 <i>and</i><br>BIOO 434                                                      | Developmental Biology (Organismal Elective)<br>or General Genetics<br>or Comparative Animal Physiology<br>or Endocrinology<br>or Comparative Vertebrate Anatomy<br>or Plant Physiology <i>and</i> Plant Physiology Lab                                                                    | 3              |
| BIOO 320<br>or BIOO 335<br>or BIOO 340<br>or BIOO 462<br>or BIOO 470<br>or BIOO 475<br>or BIOM 360 <i>and</i><br>BIOM 361<br>or BIOM 427 <i>and</i><br>BIOM 428 | General Botany (-Ology Elective)<br>or Rocky Mountain Flora<br>or Biology and Management of Fishes<br>or Entomology<br>or Ornithology<br>or Mammalogy<br>or General Microbiology <i>and</i> General Microbiology Lab<br>or General Parasitology <i>and</i> General Parasitology Lab       | 4-5            |
| General Education Requirement                                                                                                                                   |                                                                                                                                                                                                                                                                                           | 3              |
| Upper Division Elective                                                                                                                                         |                                                                                                                                                                                                                                                                                           | 4              |
| Elective                                                                                                                                                        |                                                                                                                                                                                                                                                                                           | 1              |
| <b>Hours</b>                                                                                                                                                    |                                                                                                                                                                                                                                                                                           | <b>15-16</b>   |
| <b>Total Hours</b>                                                                                                                                              |                                                                                                                                                                                                                                                                                           | <b>121-124</b> |

Last updated Autumn 2025

## Track 2: Advanced Chemistry (pre-vet/organismal biology)

| Course                                                                                                                                                          | Title                                                                                                                                                                                                                                                                               | Hours     |
|-----------------------------------------------------------------------------------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-----------|
| <b>Freshman</b>                                                                                                                                                 |                                                                                                                                                                                                                                                                                     |           |
| <b>Autumn</b>                                                                                                                                                   |                                                                                                                                                                                                                                                                                     |           |
| BIOB 160<br>& BIOB 161N                                                                                                                                         | Principles of Living Systems<br>and Principles of Living Systems Lab                                                                                                                                                                                                                | 4         |
| CHMY 141N<br>& CHMY 142N                                                                                                                                        | College Chemistry I<br>and College Chemistry I Lab                                                                                                                                                                                                                                  | 5         |
| M 171<br>or M 162                                                                                                                                               | Calculus I<br>or Applied Calculus                                                                                                                                                                                                                                                   | 4         |
| BIOB 194                                                                                                                                                        | Your Future in Biology                                                                                                                                                                                                                                                              | 1         |
| <b>Hours</b>                                                                                                                                                    |                                                                                                                                                                                                                                                                                     | <b>14</b> |
| <b>Spring</b>                                                                                                                                                   |                                                                                                                                                                                                                                                                                     |           |
| BIOB 170N<br>& BIOB 171N                                                                                                                                        | Principles of Biological Diversity<br>and Principles of Biological Diversity Lab                                                                                                                                                                                                    | 5         |
| CHMY 143N<br>& CHMY 144N                                                                                                                                        | College Chemistry II<br>and College Chemistry II Lab                                                                                                                                                                                                                                | 5         |
| General Education Requirement                                                                                                                                   |                                                                                                                                                                                                                                                                                     | 3         |
| WRIT 101                                                                                                                                                        | College Writing I                                                                                                                                                                                                                                                                   | 4         |
| <b>Hours</b>                                                                                                                                                    |                                                                                                                                                                                                                                                                                     | <b>17</b> |
| <b>Sophomore</b>                                                                                                                                                |                                                                                                                                                                                                                                                                                     |           |
| <b>Autumn</b>                                                                                                                                                   |                                                                                                                                                                                                                                                                                     |           |
| BIOB 260                                                                                                                                                        | Cellular and Molecular Biology                                                                                                                                                                                                                                                      | 4         |
| STAT 216                                                                                                                                                        | Introduction to Statistics                                                                                                                                                                                                                                                          | 4         |
| CHMY 221<br>& CHMY 222                                                                                                                                          | Organic Chemistry I<br>and Organic Chemistry I Lab                                                                                                                                                                                                                                  | 5         |
| Intermediate Writing Course                                                                                                                                     |                                                                                                                                                                                                                                                                                     | 3         |
| <b>Hours</b>                                                                                                                                                    |                                                                                                                                                                                                                                                                                     | <b>16</b> |
| <b>Spring</b>                                                                                                                                                   |                                                                                                                                                                                                                                                                                     |           |
| CHMY 223<br>& CHMY 224                                                                                                                                          | Organic Chemistry II<br>and Organic Chemistry II Lab                                                                                                                                                                                                                                | 5         |
| BIOB 272                                                                                                                                                        | Genetics and Evolution                                                                                                                                                                                                                                                              | 4         |
| General Education Requirement                                                                                                                                   |                                                                                                                                                                                                                                                                                     | 6         |
| <b>Hours</b>                                                                                                                                                    |                                                                                                                                                                                                                                                                                     | <b>15</b> |
| <b>Junior</b>                                                                                                                                                   |                                                                                                                                                                                                                                                                                     |           |
| <b>Autumn</b>                                                                                                                                                   |                                                                                                                                                                                                                                                                                     |           |
| BIOE 370<br>& BIOE 371                                                                                                                                          | General Ecology<br>and General Ecology Lab (equivalent to 271)                                                                                                                                                                                                                      | 5         |
| BIOO 320<br>or BIOO 335<br>or BIOO 340<br>or BIOO 462<br>or BIOO 470<br>or BIOO 475<br>or BIOM 360 <i>and</i><br>BIOM 361<br>or BIOM 427 <i>and</i><br>BIOM 428 | General Botany (-Ology Elective)<br>or Rocky Mountain Flora<br>or Biology and Management of Fishes<br>or Entomology<br>or Ornithology<br>or Mammalogy<br>or General Microbiology <i>and</i> General Microbiology Lab<br>or General Parasitology <i>and</i> General Parasitology Lab | 5         |
| PHSX 205N<br>& PHSX 206N                                                                                                                                        | College Physics I<br>and College Physics I Laboratory                                                                                                                                                                                                                               | 5         |
| <b>Hours</b>                                                                                                                                                    |                                                                                                                                                                                                                                                                                     | <b>15</b> |
| <b>Spring</b>                                                                                                                                                   |                                                                                                                                                                                                                                                                                     |           |
| BIOB 301<br>or BIOB 375<br>or BIOB 435<br>or BIOB 468<br>or BIOE 403<br>or BIOO 433 <i>and</i><br>BIOO 434                                                      | Developmental Biology (Organismal Elective)<br>or General Genetics<br>or Comparative Animal Physiology<br>or Endocrinology<br>or Comparative Vertebrate Anatomy<br>or Plant Physiology <i>and</i> Plant Physiology Lab                                                              | 3         |
| PHSX 207N<br>& PHSX 208N                                                                                                                                        | College Physics II<br>and College Physics II Laboratory                                                                                                                                                                                                                             | 5         |
| General Education Requirement                                                                                                                                   |                                                                                                                                                                                                                                                                                     | 3         |

|                                                                                                    |                                                                                                                                                                                                                                                                                           |
|----------------------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| Upper Division Elective                                                                            | 3                                                                                                                                                                                                                                                                                         |
| Elective                                                                                           | 1                                                                                                                                                                                                                                                                                         |
| Hours                                                                                              | 15                                                                                                                                                                                                                                                                                        |
| Senior                                                                                             |                                                                                                                                                                                                                                                                                           |
| Autumn                                                                                             |                                                                                                                                                                                                                                                                                           |
| BIOE 428<br>or BIOE 447<br>or BIOE 448<br>or BIOM 415<br>or BIOM 460<br>or WILD 346<br>or WILD 470 | Freshwater Ecology (Specialized Ecology Elective) <sup>1</sup><br>or Ecosystem Ecology<br>or Terrestrial Plant Ecology<br>or Microbial Diversity Ecology & Evolution<br>or Ecology of Infectious Diseases<br>or Wildlife Physiological Ecology<br>or Conservation of Wildlife Populations |
| Major Elective (BIO_300+)                                                                          | 3                                                                                                                                                                                                                                                                                         |
| General Education Requirement                                                                      | 3                                                                                                                                                                                                                                                                                         |
| Upper Division Elective                                                                            | 4                                                                                                                                                                                                                                                                                         |
| Hours                                                                                              | 14-15                                                                                                                                                                                                                                                                                     |
| Spring                                                                                             |                                                                                                                                                                                                                                                                                           |
| Major Elective (BIO_300+) - Advanced Writing                                                       | 3                                                                                                                                                                                                                                                                                         |
| BIOM 480<br>or BIOB 483<br>or BIOB 486<br>or BIOE 406<br>or BIOE 485<br>or BIOM 420                | Conservation Genetics (Evolution Elective)<br>or Phylogenetics and Evolution<br>or Genomics<br>or Behavior & Evolution<br>or Plant Evolution<br>or Host-Microbe Interactions                                                                                                              |
| General Education Requirement                                                                      | 3                                                                                                                                                                                                                                                                                         |
| Upper Division Elective                                                                            | 6                                                                                                                                                                                                                                                                                         |
| Hours                                                                                              | 15                                                                                                                                                                                                                                                                                        |
| Total Hours                                                                                        | 121-122                                                                                                                                                                                                                                                                                   |

Last updated Autumn 2025

<sup>1</sup> Summer-only Specialized Ecology courses at the Flathead Lake Biological Station: BIOE 400, BIOE 416, BIOE 439, BIOE 440,BIOE 451, BIOE 453, BIOE 458

## Biology B.S. - Genetics and Evolution

The Genetics and Evolution concentration is for students interested in genetics and evolutionary biology, including molecular genetics, population genetics, ecological genetics, and genomics. This concentration is a graduate preparatory program and is for students interested in academia or research jobs in private or government laboratories. It is also an excellent concentration for students interested in a professional health program such as medical school or a genetic counseling graduate program.

### General Degree Requirements

To earn a baccalaureate degree, all students must complete successfully, in addition to any other requirements, the University of Montana General Education Requirements. Please refer to the General Education Requirements page (p. 39) for more information.

Additional requirements for graduation can be found on the Degree/Certificate Requirements for Graduation page (p. 36).

Unless otherwise noted in individual program requirements, a minimum grade point average of 2.00 in all work attempted at the University of Montana-Missoula is required for graduation. Please see the Academic Policies and Procedures page (p. 25) for information on how your GPA is calculated.

Courses taken to satisfy the requirements of a major, minor, or certificate program must be completed with a grade of C- or better unless a higher grade is noted in the program requirements.

## Bachelor of Science - Biology; Genetics and Evolution Concentration

### Course Requirements

| Code                                                                                  | Title                                                | Hours |
|---------------------------------------------------------------------------------------|------------------------------------------------------|-------|
| Biology/Microbiology Lower-Division Core                                              |                                                      |       |
| Complete all of the following courses:                                                |                                                      |       |
| BIOB 160                                                                              | Principles of Living Systems                         | 3     |
| BIOB 161N                                                                             | Principles of Living Systems Lab                     | 1     |
| BIOB 170N                                                                             | Principles of Biological Diversity                   | 3     |
| BIOB 171N                                                                             | Principles of Biological Diversity Lab               | 2     |
| BIOB 260                                                                              | Cellular and Molecular Biology                       | 4     |
| BIOB 272                                                                              | Genetics and Evolution                               | 4     |
| Upper-Division Core Courses Required by the Genetics & Evolution Concentration        |                                                      |       |
| Complete all of the following courses:                                                |                                                      |       |
| BIOB 375                                                                              | General Genetics                                     | 3     |
| BIOB 486                                                                              | Genomics                                             | 3     |
| BIOE 370                                                                              | General Ecology                                      | 3     |
| BIOE 371                                                                              | General Ecology Lab (equivalent to 271)              | 2     |
| Additional Upper-Division Courses Required for the Genetics & Evolution Concentration |                                                      |       |
| Biochemistry <sup>2</sup>                                                             |                                                      |       |
| Complete one of the following courses:                                                |                                                      | 4-6   |
| BCH 380                                                                               | Biochemistry                                         |       |
| BCH 480 & BCH 482                                                                     | Advanced Biochemistry I and Advanced Biochemistry II |       |
| Genetics/Evolution Depth Courses                                                      |                                                      |       |
| Complete three of the following courses:                                              |                                                      | 9-10  |
| BIOB 480                                                                              | Conservation Genetics                                |       |
| BIOB 483                                                                              | Phylogenics and Evolution                            |       |
| BIOE 403                                                                              | Comparative Vertebrate Anatomy                       |       |
| BIOE 406                                                                              | Behavior & Evolution                                 |       |
| BIOE 485                                                                              | Plant Evolution                                      |       |
| BIOH 447                                                                              | Genes and Development Lab                            |       |
| BIOM 410                                                                              | Microbial Genetics                                   |       |
| BIOM 415                                                                              | Microbial Diversity Ecology & Evolution              |       |
| BIOM 420                                                                              | Host-Microbe Interactions                            |       |
| CSCI 451                                                                              | Computational Biology                                |       |
| Physiology Requirement                                                                |                                                      |       |
| Complete one of the following courses (labs must be taken if available):              |                                                      | 3-4   |
| BIOB 425                                                                              | Advanced Cellular & Molecular Biology                |       |
| BIOB 435                                                                              | Comparative Animal Physiology                        |       |
| BIOM 450 & BIOM 451                                                                   | Microbial Physiology and Microbial Physiology Lab    |       |
| BIOO 433 & BIOO 434                                                                   | Plant Physiology and Plant Physiology Lab            |       |
| Mathematics - Calculus <sup>3</sup>                                                   |                                                      |       |

Complete one of the following courses: 4

|       |                  |
|-------|------------------|
| M 162 | Applied Calculus |
| M 171 | Calculus I       |

#### Mathematics - Statistics

Complete either one semester or a full year of statistics from the following: 4-8

|                     |                                                        |
|---------------------|--------------------------------------------------------|
| One Semester:       |                                                        |
| STAT 216            | Introduction to Statistics                             |
| Full Year:          |                                                        |
| STAT 451 & STAT 452 | Statistical Methods I and Statistical Methods II       |
| STAT 457 & STAT 458 | Computer Data Analysis I and Computer Data Analysis II |

#### Chemistry <sup>4</sup>

Complete one of the following sequences of general and organic chemistry: 10-20

|                                      |                                                                                           |
|--------------------------------------|-------------------------------------------------------------------------------------------|
| Introductory Chemistry (10 credits): |                                                                                           |
| CHMY 121N                            | Introduction to General Chemistry                                                         |
| CHMY 123 & CHMY 124                  | Introduction to Organic and Biochemistry and Introduction to Organic and Biochemistry Lab |
| Advanced Chemistry (20 credits):     |                                                                                           |
| CHMY 141N & CHMY 142N                | College Chemistry I and College Chemistry I Lab                                           |
| CHMY 143N & CHMY 144N                | College Chemistry II and College Chemistry II Lab                                         |
| CHMY 221 & CHMY 222                  | Organic Chemistry I and Organic Chemistry I Lab                                           |
| CHMY 223 & CHMY 224                  | Organic Chemistry II and Organic Chemistry II Lab                                         |

#### Physics

Complete one of the following Physics sequences: 10

|                                          |                                                                                  |
|------------------------------------------|----------------------------------------------------------------------------------|
| Algebra- and Trigonometry-based Physics: |                                                                                  |
| PHSX 205N & PHSX 206N                    | College Physics I and College Physics I Laboratory                               |
| PHSX 207N & PHSX 208N                    | College Physics II and College Physics II Laboratory                             |
| Calculus-based Physics:                  |                                                                                  |
| PHSX 215N & PHSX 216N                    | Fundamentals of Physics with Calculus I and Physics Laboratory I with Calculus   |
| PHSX 217N & PHSX 218N                    | Fundamentals of Physics with Calculus II and Physics Laboratory II with Calculus |

#### Writing in the Disciplines Requirement

To complete the Writing in the Disciplines Requirement, Biology students take 2 or 3 partial writing courses (either three 1/3 writing courses or one 1/3 writing course and one 2/3 writing course) or one complete writing course. 3

**Total Hours 75-93**

<sup>1</sup> The lower-division core should be completed before attempting most upper-division major courses. AP Biology credit with a score of 3 may be substituted for either BIOB 160/BIOB 161N or BIOB 170N/BIOB 171N.

<sup>2</sup> If introductory chemistry is completed, then BCH 380 must be taken. Either BCH 380 or BCH 480-BCH 482 may be taken if the advanced chemistry sequence is completed.

<sup>3</sup> Student should choose M 171 if they plan to take additional calculus courses or if they plan to double major or minor in a field that requires more calculus (e.g. astronomy, math, physics, biochemistry, computer science).

<sup>4</sup> Students who begin in the advanced chemistry sequence may substitute those courses for introductory sequence courses at the discretion of the major advisor. Students should choose the advanced sequence for graduate preparation.

## Writing in the Disciplines Distributed Model Courses for Biological Sciences

| Code                                           | Title                                             | Hours |
|------------------------------------------------|---------------------------------------------------|-------|
| <b>1/3 Writing in the Disciplines Courses</b>  |                                                   |       |
| BCH 482                                        | Advanced Biochemistry II                          | 3     |
| BIOB 410                                       | Immunology                                        | 3     |
| BIOB 425                                       | Advanced Cellular & Molecular Biology             | 3     |
| BIOB 483                                       | Phylogenics and Evolution                         | 3     |
| BIOE 371                                       | General Ecology Lab (equivalent to 271)           | 2     |
| BIOE 403                                       | Comparative Vertebrate Anatomy                    | 4     |
| BIOE 428                                       | Freshwater Ecology                                | 5     |
| BIOH 447                                       | Genes and Development Lab                         | 3     |
| BIOB 327                                       | Vector-Borne Diseases: Public Health Perspectives | 3     |
| BIOB 435                                       | Virology                                          | 3     |
| BIOB 470                                       | Ornithology                                       | 4     |
| BIOB 475                                       | Mammalogy                                         | 4     |
| WILD 470                                       | Conservation of Wildlife Populations              | 4     |
| <b>2/3 Writing in the Disciplines Courses</b>  |                                                   |       |
| BCH 486                                        | Biochemistry Research Lab                         | 3     |
| BCH 499                                        | Senior Thesis/Capstone                            | 3-6   |
| BIOB 411                                       | Immunology Laboratory                             | 2     |
| BIOB 499                                       | Undergraduate Thesis                              | 3-6   |
| BIOE 448                                       | Terrestrial Plant Ecology                         | 4     |
| BIOE 485                                       | Plant Evolution                                   | 3     |
| BIOB 499                                       | Undergraduate Thesis                              | 3-6   |
| <b>Full Writing in the Disciplines Courses</b> |                                                   |       |
| BIOH 462                                       | Principles of Medical Physiology                  | 3     |
| BIOB 420                                       | Host-Microbe Interactions                         | 3     |

| Course                | Title                                                                         | Hours     |
|-----------------------|-------------------------------------------------------------------------------|-----------|
| <b>Freshman</b>       |                                                                               |           |
| <b>Autumn</b>         |                                                                               |           |
| BIOB 160 & BIOB 161N  | Principles of Living Systems and Principles of Living Systems Lab             | 4         |
| CHMY 141N & CHMY 142N | College Chemistry I and College Chemistry I Lab                               | 5         |
| BIOB 194              | Your Future in Biology                                                        | 1         |
| M 171 or M 162        | Calculus I or Applied Calculus                                                | 4         |
| Elective              |                                                                               | 1         |
| <b>Hours</b>          |                                                                               | <b>15</b> |
| <b>Spring</b>         |                                                                               |           |
| BIOB 170N & BIOB 171N | Principles of Biological Diversity and Principles of Biological Diversity Lab | 5         |
| CHMY 143N & CHMY 144N | College Chemistry II and College Chemistry II Lab                             | 5         |

|                               |                                                                                |           |
|-------------------------------|--------------------------------------------------------------------------------|-----------|
| WRIT 101                      | College Writing I                                                              | 4         |
| General Education Requirement |                                                                                | 3         |
| <b>Hours</b>                  |                                                                                | <b>17</b> |
| <b>Sophomore</b>              |                                                                                |           |
| <b>Autumn</b>                 |                                                                                |           |
| BIOB 260                      | Cellular and Molecular Biology                                                 | 4         |
| CHMY 221<br>& CHMY 222        | Organic Chemistry I<br>and Organic Chemistry I Lab                             | 5         |
| STAT 216                      | Introduction to Statistics                                                     | 4         |
| Intermediate Writing Course   |                                                                                | 3         |
| <b>Hours</b>                  |                                                                                | <b>16</b> |
| <b>Spring</b>                 |                                                                                |           |
| BIOB 272                      | Genetics and Evolution                                                         | 4         |
| CHMY 223<br>& CHMY 224        | Organic Chemistry II<br>and Organic Chemistry II Lab                           | 5         |
| General Education Requirement |                                                                                | 6         |
| <b>Hours</b>                  |                                                                                | <b>15</b> |
| <b>Junior</b>                 |                                                                                |           |
| <b>Autumn</b>                 |                                                                                |           |
| BIOE 370<br>& BIOE 371        | General Ecology<br>and General Ecology Lab (equivalent to 271)                 | 5         |
| BIOB 480                      | Conservation Genetics (Depth Elective)                                         | 3         |
| or BIOB 483                   | or Phylogenetics and Evolution                                                 |           |
| or BIOE 403                   | or Comparative Vertebrate Anatomy                                              |           |
| or BIOE 406                   | or Behavior & Evolution                                                        |           |
| or BIOE 485                   | or Plant Evolution                                                             |           |
| or BIOH 447                   | or Genes and Development Lab                                                   |           |
| or BIOM 410                   | or Microbial Genetics                                                          |           |
| or BIOM 415                   | or Microbial Diversity Ecology & Evolution                                     |           |
| or BIOM 420                   | or Host-Microbe Interactions                                                   |           |
| or CSCI 451                   | or Computational Biology                                                       |           |
| PHSX 205N<br>& PHSX 206N      | College Physics I<br>and College Physics I Laboratory                          | 5         |
| General Education Requirement |                                                                                | 3         |
| <b>Hours</b>                  |                                                                                | <b>16</b> |
| <b>Spring</b>                 |                                                                                |           |
| BIOB 375                      | General Genetics                                                               | 3         |
| BIOB 486                      | Genomics                                                                       | 3         |
| PHSX 207N<br>& PHSX 208N      | College Physics II<br>and College Physics II Laboratory                        | 5         |
| General Education Requirement |                                                                                | 3         |
| <b>Hours</b>                  |                                                                                | <b>14</b> |
| <b>Senior</b>                 |                                                                                |           |
| <b>Autumn</b>                 |                                                                                |           |
| BCH 480<br>or BCH 380         | Advanced Biochemistry I<br>or Biochemistry                                     | 3         |
| BIOB 480                      | Conservation Genetics (Depth Elective (take 2))                                | 6         |
| or BIOB 483                   | or Phylogenetics and Evolution                                                 |           |
| or BIOE 403                   | or Comparative Vertebrate Anatomy                                              |           |
| or BIOE 406                   | or Behavior & Evolution                                                        |           |
| or BIOE 485                   | or Plant Evolution                                                             |           |
| or BIOH 447                   | or Genes and Development Lab                                                   |           |
| or BIOM 410                   | or Microbial Genetics                                                          |           |
| or BIOM 415                   | or Microbial Diversity Ecology & Evolution                                     |           |
| or BIOM 420                   | or Host-Microbe Interactions                                                   |           |
| or CSCI 451                   | or Computational Biology                                                       |           |
| Upper Division Elective       |                                                                                | 4         |
| Elective                      |                                                                                | 1         |
| <b>Hours</b>                  |                                                                                | <b>14</b> |
| <b>Spring</b>                 |                                                                                |           |
| BCH 482                       | Advanced Biochemistry II (or Upper Division Elective 2 cr. + Advanced Writing) | 3         |

|                                                                                                    |                                                                                                                                                                                                                             |            |
|----------------------------------------------------------------------------------------------------|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|------------|
| BIOB 425<br>or BIOB 435<br>or BIOM 450 <i>and</i><br>BIOB 451<br>or BIO 433 <i>and</i><br>BIOB 434 | Advanced Cellular & Molecular Biology (Physiology<br>Elective)<br>or Comparative Animal Physiology<br>or Microbial Physiology <i>and</i> Microbial Physiology<br>Lab<br>or Plant Physiology <i>and</i> Plant Physiology Lab | 3          |
| General Education Requirement                                                                      |                                                                                                                                                                                                                             | 3          |
| Upper Division Elective                                                                            |                                                                                                                                                                                                                             | 6          |
| <b>Hours</b>                                                                                       |                                                                                                                                                                                                                             | <b>15</b>  |
| <b>Total Hours</b>                                                                                 |                                                                                                                                                                                                                             | <b>122</b> |

Last updated Autumn 2025

## Human Biology and Biomedical Sciences B.S.

The B.S. in Human Biology and Biomedical Sciences is for students interested in health, biomedical, and biotechnology. Students are provided a solid background in the biological, biomedical, and related physical sciences and are prepared for careers in biomedical research as well as professional health programs (medical, M.D./Ph.D., dental, physician's assistant, physical therapy, etc.).

### General Degree Requirements

To earn a baccalaureate degree, all students must complete successfully, in addition to any other requirements, the University of Montana General Education Requirements. Please refer to the General Education Requirements page (p. 39) for more information.

Additional requirements for graduation can be found on the Degree/Certificate Requirements for Graduation page (p. 36).

Unless otherwise noted in individual program requirements, a minimum grade point average of 2.00 in all work attempted at the University of Montana-Missoula is required for graduation. Please see the Academic Policies and Procedures page (p. 25) for information on how your GPA is calculated.

Courses taken to satisfy the requirements of a major, minor, or certificate program must be completed with a grade of C- or better unless a higher grade is noted in the program requirements.

## Bachelor of Science - Human Biology and Biomedical Sciences

### Course Requirements

| Code                                                         | Title                                  | Hours |
|--------------------------------------------------------------|----------------------------------------|-------|
| <b>Biology/Microbiology Lower-Division Core <sup>1</sup></b> |                                        |       |
| Complete all of the following courses:                       |                                        |       |
| BIOB 160                                                     | Principles of Living Systems           | 3     |
| BIOB 161N                                                    | Principles of Living Systems Lab       | 1     |
| BIOB 170N                                                    | Principles of Biological Diversity     | 3     |
| BIOB 171N                                                    | Principles of Biological Diversity Lab | 2     |
| BIOB 260                                                     | Cellular and Molecular Biology         | 4     |
| BIOB 272                                                     | Genetics and Evolution                 | 4     |

### Human and Biomedical 300-level Depth Courses

|                                          |                       |      |
|------------------------------------------|-----------------------|------|
| Complete three of the following courses: |                       | 9-13 |
| BIOB 301                                 | Developmental Biology |      |
| BIOB 375                                 | General Genetics      |      |

|                                                                                                                                   |                                                                                                                                 |      |
|-----------------------------------------------------------------------------------------------------------------------------------|---------------------------------------------------------------------------------------------------------------------------------|------|
| BIOH 365<br>& BIOH 366                                                                                                            | Human Anatomy and Physiology for Health Professions I<br>and Human Anatomy and Physiology for Health Professions I Laboratory   |      |
| BIOH 370<br>& BIOH 371                                                                                                            | Human Anatomy and Physiology for Health Professions II<br>and Human Anatomy and Physiology for Health Professions II Laboratory |      |
| BIOM 360<br>& BIOM 361                                                                                                            | General Microbiology<br>and General Microbiology Lab                                                                            |      |
| NEUR 380                                                                                                                          | Molecular Neuroscience                                                                                                          |      |
| <b>Biochemistry Requirement</b>                                                                                                   |                                                                                                                                 |      |
| Complete one of the following sequences:                                                                                          |                                                                                                                                 | 4-6  |
| One Semester:                                                                                                                     |                                                                                                                                 |      |
| BCH 380                                                                                                                           | Biochemistry                                                                                                                    |      |
| Full Year:                                                                                                                        |                                                                                                                                 |      |
| BCH 480<br>& BCH 482                                                                                                              | Advanced Biochemistry I<br>and Advanced Biochemistry II                                                                         |      |
| <b>Human and Biomedical 400-level Depth Courses</b>                                                                               |                                                                                                                                 |      |
| If BCH 480/482 were taken, complete three of the following courses. If BCH 380 was taken, complete four of the following courses: |                                                                                                                                 | 9-13 |
| BCH 486                                                                                                                           | Biochemistry Research Lab                                                                                                       |      |
| BCH 490                                                                                                                           | Undergraduate Research                                                                                                          |      |
| BIOB 410                                                                                                                          | Immunology                                                                                                                      |      |
| BIOB 425                                                                                                                          | Advanced Cellular & Molecular Biology                                                                                           |      |
| BIOB 468                                                                                                                          | Endocrinology                                                                                                                   |      |
| BIOB 486                                                                                                                          | Genomics                                                                                                                        |      |
| BIOB 490                                                                                                                          | Advanced Undergraduate Research                                                                                                 |      |
| BIOB 499                                                                                                                          | Undergraduate Thesis                                                                                                            |      |
| BIOH 405                                                                                                                          | Hematology                                                                                                                      |      |
| BIOH 447                                                                                                                          | Genes and Development Lab                                                                                                       |      |
| BIOH 462                                                                                                                          | Principles of Medical Physiology                                                                                                |      |
| BIOM 402                                                                                                                          | Pathogenic Microbes                                                                                                             |      |
| BIOM 420                                                                                                                          | Host-Microbe Interactions                                                                                                       |      |
| BIOM 427<br>& BIOM 428                                                                                                            | General Parasitology<br>and General Parasitology Lab                                                                            |      |
| BIOM 435                                                                                                                          | Virology                                                                                                                        |      |
| BIOM 490                                                                                                                          | Advanced Undergraduate Research                                                                                                 |      |
| <b>Careers Course</b>                                                                                                             |                                                                                                                                 |      |
| Complete one of the following courses:                                                                                            |                                                                                                                                 | 1-2  |
| BIOB 194                                                                                                                          | Your Future in Biology                                                                                                          |      |
| HMED 140                                                                                                                          | PreMedical Sciences 101 Honors: The Science of Health Professions Success                                                       |      |
| <b>Related Mathematical and Social Sciences</b>                                                                                   |                                                                                                                                 |      |
| Complete three of the following courses:                                                                                          |                                                                                                                                 | 9-11 |
| CSCI 150                                                                                                                          | Introduction to Computer Science                                                                                                |      |
| M 162<br>or M 171                                                                                                                 | Applied Calculus<br>Calculus I                                                                                                  |      |
| PSYX 100S                                                                                                                         | Intro to Psychology                                                                                                             |      |
| SOCI 101S                                                                                                                         | Introduction to Sociology                                                                                                       |      |
| STAT 216                                                                                                                          | Introduction to Statistics                                                                                                      |      |
| <b>Chemistry<sup>2</sup></b>                                                                                                      |                                                                                                                                 |      |

Complete one of the following sequences of general and organic chemistry: 10-20

|                                      |                                                                                                 |
|--------------------------------------|-------------------------------------------------------------------------------------------------|
| Introductory Chemistry (10 credits): |                                                                                                 |
| CHMY 121N                            | Introduction to General Chemistry                                                               |
| CHMY 123<br>& CHMY 124               | Introduction to Organic and Biochemistry<br>and Introduction to Organic and<br>Biochemistry Lab |
| Advanced Chemistry (20 credits):     |                                                                                                 |
| CHMY 141N<br>& CHMY 142N             | College Chemistry I<br>and College Chemistry I Lab                                              |
| CHMY 143N<br>& CHMY 144N             | College Chemistry II<br>and College Chemistry II Lab                                            |
| CHMY 221<br>& CHMY 222               | Organic Chemistry I<br>and Organic Chemistry I Lab                                              |
| CHMY 223<br>& CHMY 224               | Organic Chemistry II<br>and Organic Chemistry II Lab                                            |

| Physics                                                                                                                                                                                                                              |                                                                                     |
|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------|
| Complete one of the following Physics sequences:                                                                                                                                                                                     |                                                                                     |
| Algebra- and Trigonometry-based Physics:                                                                                                                                                                                             |                                                                                     |
| PHSX 205N<br>& PHSX 206N                                                                                                                                                                                                             | College Physics I<br>and College Physics I Laboratory                               |
| PHSX 207N<br>& PHSX 208N                                                                                                                                                                                                             | College Physics II<br>and College Physics II Laboratory                             |
| Calculus-based Physics:                                                                                                                                                                                                              |                                                                                     |
| PHSX 215N<br>& PHSX 216N                                                                                                                                                                                                             | Fundamentals of Physics with Calculus I<br>and Physics Laboratory I with Calculus   |
| PHSX 217N<br>& PHSX 218N                                                                                                                                                                                                             | Fundamentals of Physics with Calculus II<br>and Physics Laboratory II with Calculus |
| Writing in the Disciplines Requirement                                                                                                                                                                                               |                                                                                     |
| To complete the Writing in the Disciplines Requirement, Biology students take 2 or 3 partial writing courses (either three 1/3 writing courses or one 1/3 writing course and one 2/3 writing course) or one complete writing course. |                                                                                     |

**Total Hours** 69-92

- <sup>1</sup> The lower-division core should be completed before attempting most upper-division major courses. AP Biology credit with a score of 3 may be substituted for either BIOB 160/BIOB 161N or BIOB 170N/BIOB 171N.
- <sup>2</sup> Students who begin in the advanced chemistry sequence may substitute those courses for introductory sequence courses at the discretion of the major advisor. If students plan to apply to a graduate or professional school such as medical or dental, they should plan to complete the advanced chemistry sequence. If they plan to pursue nursing or a graduate program in physical therapy, the introductory chemistry sequence is most likely sufficient. The advanced chemistry option is more flexible, and keeps more options open for future careers. Check the requirements of your intended professional program to help determine which sequence is most appropriate.

## Writing in the Disciplines Distributed Model Courses for Biological Sciences

| Code                                          | Title                    | Hours |
|-----------------------------------------------|--------------------------|-------|
| <b>1/3 Writing in the Disciplines Courses</b> |                          |       |
| BCH 482                                       | Advanced Biochemistry II | 3     |
| BIOB 410                                      | Immunology               | 3     |



|                                                |                                                   |     |
|------------------------------------------------|---------------------------------------------------|-----|
| BIOB 425                                       | Advanced Cellular & Molecular Biology             | 3   |
| BIOB 483                                       | Phylogenics and Evolution                         | 3   |
| BIOE 371                                       | General Ecology Lab (equivalent to 271)           | 2   |
| BIOE 403                                       | Comparative Vertebrate Anatomy                    | 4   |
| BIOE 428                                       | Freshwater Ecology                                | 5   |
| BIOH 447                                       | Genes and Development Lab                         | 3   |
| BIOM 327                                       | Vector-Borne Diseases: Public Health Perspectives | 3   |
| BIOM 435                                       | Virology                                          | 3   |
| BIOO 470                                       | Ornithology                                       | 4   |
| BIOO 475                                       | Mammalogy                                         | 4   |
| WILD 470                                       | Conservation of Wildlife Populations              | 4   |
| <b>2/3 Writing in the Disciplines Courses</b>  |                                                   |     |
| BCH 486                                        | Biochemistry Research Lab                         | 3   |
| BCH 499                                        | Senior Thesis/Capstone                            | 3-6 |
| BIOB 411                                       | Immunology Laboratory                             | 2   |
| BIOB 499                                       | Undergraduate Thesis                              | 3-6 |
| BIOE 448                                       | Terrestrial Plant Ecology                         | 4   |
| BIOE 485                                       | Plant Evolution                                   | 3   |
| BIOM 499                                       | Undergraduate Thesis                              | 3-6 |
| <b>Full Writing in the Disciplines Courses</b> |                                                   |     |
| BIOH 462                                       | Principles of Medical Physiology                  | 3   |
| BIOM 420                                       | Host-Microbe Interactions                         | 3   |

## Plan for Pre-Health Track

*\*This is an example of a four-year plan for a B.S. Degree in Human Biology & Biomedical Sciences. This pre-health track is for students interested in health-related careers that do not require advanced chemistry: for example, Public Health, Occupational Therapy, some Physician Assistant and most Physical Therapy.*

| Course                | Title                                                                                                                                   | Hours     |
|-----------------------|-----------------------------------------------------------------------------------------------------------------------------------------|-----------|
| <b>Freshman</b>       |                                                                                                                                         |           |
| <b>Autumn</b>         |                                                                                                                                         |           |
| BIOB 160 & BIOB 161N  | Principles of Living Systems and Principles of Living Systems Lab                                                                       | 4         |
| CHMY 121N             | Introduction to General Chemistry <sup>1</sup>                                                                                          | 4         |
| M 162 or M 171        | Applied Calculus <sup>1</sup> or Calculus I                                                                                             | 4         |
| WRIT 101              | College Writing I                                                                                                                       | 4         |
| <b>Hours</b>          |                                                                                                                                         | <b>16</b> |
| <b>Spring</b>         |                                                                                                                                         |           |
| BIOB 170N & BIOB 171N | Principles of Biological Diversity and Principles of Biological Diversity Lab                                                           | 5         |
| CHMY 123 & CHMY 124   | Introduction to Organic and Biochemistry and Introduction to Organic and Biochemistry Lab <sup>1</sup>                                  | 6         |
| PSYX 100S             | Intro to Psychology <sup>1</sup>                                                                                                        | 3         |
| HMED 140              | Introduction to Health Professions <sup>1</sup>                                                                                         | 2         |
| <b>Hours</b>          |                                                                                                                                         | <b>16</b> |
| <b>Sophomore</b>      |                                                                                                                                         |           |
| <b>Autumn</b>         |                                                                                                                                         |           |
| BIOB 260              | Cellular and Molecular Biology                                                                                                          | 4         |
| BIOH 365 & BIOH 366   | Human Anatomy and Physiology for Health Professions I and Human Anatomy and Physiology for Health Professions I Laboratory <sup>1</sup> | 4         |
| STAT 216              | Introduction to Statistics <sup>1</sup>                                                                                                 | 4         |

|                               |                                                                                                                                           |            |
|-------------------------------|-------------------------------------------------------------------------------------------------------------------------------------------|------------|
| Intermediate Writing Course   |                                                                                                                                           | 3          |
| <b>Hours</b>                  |                                                                                                                                           | <b>15</b>  |
| <b>Spring</b>                 |                                                                                                                                           |            |
| BIOB 272                      | Genetics and Evolution                                                                                                                    | 4          |
| BIOH 370 & BIOH 371           | Human Anatomy and Physiology for Health Professions II and Human Anatomy and Physiology for Health Professions II Laboratory <sup>1</sup> | 4          |
| General Education Requirement |                                                                                                                                           | 3          |
| General Education Requirement |                                                                                                                                           | 3          |
| <b>Hours</b>                  |                                                                                                                                           | <b>14</b>  |
| <b>Junior</b>                 |                                                                                                                                           |            |
| <b>Autumn</b>                 |                                                                                                                                           |            |
| BIOM 360 & BIOM 361           | General Microbiology and General Microbiology Lab <sup>1</sup>                                                                            | 5          |
| PHSX 205N & PHSX 206N         | College Physics I and College Physics I Laboratory <sup>1</sup>                                                                           | 5          |
| General Education Requirement |                                                                                                                                           | 3          |
| Elective                      |                                                                                                                                           | 1          |
| <b>Hours</b>                  |                                                                                                                                           | <b>14</b>  |
| <b>Spring</b>                 |                                                                                                                                           |            |
| BCH 380                       | Biochemistry <sup>1</sup>                                                                                                                 | 4          |
| PHSX 207N & PHSX 208N         | College Physics II and College Physics II Laboratory <sup>1</sup>                                                                         | 5          |
| General Education Requirement |                                                                                                                                           | 3          |
| Upper Division Elective       |                                                                                                                                           | 3          |
| Elective                      |                                                                                                                                           | 1          |
| <b>Hours</b>                  |                                                                                                                                           | <b>16</b>  |
| <b>Senior</b>                 |                                                                                                                                           |            |
| <b>Autumn</b>                 |                                                                                                                                           |            |
| BIOB 410 & BIOM 428           | Immunology and General Parasitology Lab <sup>1</sup>                                                                                      | 4          |
| BIOM 427 & BIOM 428           | General Parasitology and General Parasitology Lab                                                                                         | 5          |
| Upper Division Elective       |                                                                                                                                           | 3          |
| Elective                      |                                                                                                                                           | 5          |
| <b>Hours</b>                  |                                                                                                                                           | <b>17</b>  |
| <b>Spring</b>                 |                                                                                                                                           |            |
| BIOM 435                      | Virology <sup>1</sup>                                                                                                                     | 3          |
| BIOM 402                      | Pathogenic Microbes <sup>1</sup>                                                                                                          | 3          |
| Upper Division Elective       |                                                                                                                                           | 3          |
| Elective                      |                                                                                                                                           | 6          |
| <b>Hours</b>                  |                                                                                                                                           | <b>15</b>  |
| <b>Total Hours</b>            |                                                                                                                                           | <b>123</b> |

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## Plan for Pre-Medical Track

*\*This is an example of a four-year plan for a B.S. Degree in Human Biology & Biomedical Sciences. This pre-medical track covers all courses that are required or recommended for **Medical** school and MCAT preparation. With this plan, MCAT can be taken after junior year. This is also for **Dental, Optometry, Chiropractic, some Physician Associates**.*

| Course                | Title                                                             | Hours |
|-----------------------|-------------------------------------------------------------------|-------|
| <b>Freshman</b>       |                                                                   |       |
| <b>Autumn</b>         |                                                                   |       |
| BIOB 160 & BIOB 161N  | Principles of Living Systems and Principles of Living Systems Lab | 4     |
| CHMY 141N & CHMY 142N | College Chemistry I and College Chemistry I Lab <sup>1</sup>      | 5     |
| M 171 & M 162         | Calculus I and Applied Calculus <sup>1</sup>                      | 4     |

## Plan for Research Track

*\*This is an example of a four-year plan for a B.S. Degree in Human Biology & Biomedical Sciences. This research track is for any student interested in a graduate-prep program to prepare for a career in cellular, molecular, biochemical, or biomedical research.*

|                               |                                                                                                                                                    |            |
|-------------------------------|----------------------------------------------------------------------------------------------------------------------------------------------------|------------|
| HMED 140                      | Introduction to Health Professions <sup>1</sup>                                                                                                    | 2          |
| <b>Hours</b>                  |                                                                                                                                                    | <b>15</b>  |
| <b>Spring</b>                 |                                                                                                                                                    |            |
| BIOB 170N<br>& BIOB 171N      | Principles of Biological Diversity<br>and Principles of Biological Diversity Lab                                                                   | 5          |
| CHMY 143N<br>& CHMY 144N      | College Chemistry II<br>and College Chemistry II Lab <sup>1</sup>                                                                                  | 5          |
| WRIT 101                      | College Writing I                                                                                                                                  | 4          |
| General Education Requirement |                                                                                                                                                    | 3          |
| <b>Hours</b>                  |                                                                                                                                                    | <b>17</b>  |
| <b>Sophomore</b>              |                                                                                                                                                    |            |
| <b>Autumn</b>                 |                                                                                                                                                    |            |
| BIOB 260                      | Cellular and Molecular Biology                                                                                                                     | 4          |
| CHMY 221<br>& CHMY 222        | Organic Chemistry I<br>and Organic Chemistry I Lab <sup>1</sup>                                                                                    | 5          |
| PSYX 100S                     | Intro to Psychology <sup>1</sup>                                                                                                                   | 3          |
| Intermediate Writing Course   |                                                                                                                                                    | 3          |
| <b>Hours</b>                  |                                                                                                                                                    | <b>15</b>  |
| <b>Spring</b>                 |                                                                                                                                                    |            |
| BIOB 272                      | Genetics and Evolution                                                                                                                             | 4          |
| CHMY 223<br>& CHMY 224        | Organic Chemistry II<br>and Organic Chemistry II Lab <sup>1</sup>                                                                                  | 5          |
| SOCI 101S                     | Introduction to Sociology <sup>1</sup>                                                                                                             | 3          |
| STAT 216                      | Introduction to Statistics <sup>1</sup>                                                                                                            | 4          |
| <b>Hours</b>                  |                                                                                                                                                    | <b>16</b>  |
| <b>Junior</b>                 |                                                                                                                                                    |            |
| <b>Autumn</b>                 |                                                                                                                                                    |            |
| BIOH 365<br>& BIOH 366        | Human Anatomy and Physiology for Health<br>Professions I<br>and Human Anatomy and Physiology for Health<br>Professions I Laboratory <sup>1</sup>   | 4          |
| BCH 480                       | Advanced Biochemistry I <sup>1</sup>                                                                                                               | 3          |
| PHSX 205N<br>& PHSX 206N      | College Physics I<br>and College Physics I Laboratory <sup>1</sup>                                                                                 | 5          |
| General Education Requirement |                                                                                                                                                    | 3          |
| <b>Hours</b>                  |                                                                                                                                                    | <b>15</b>  |
| <b>Spring</b>                 |                                                                                                                                                    |            |
| BIOH 370<br>& BIOH 371        | Human Anatomy and Physiology for Health<br>Professions II<br>and Human Anatomy and Physiology for Health<br>Professions II Laboratory <sup>1</sup> | 4          |
| BCH 482                       | Advanced Biochemistry II <sup>1</sup>                                                                                                              | 3          |
| PHSX 207N<br>& PHSX 208N      | College Physics II<br>and College Physics II Laboratory <sup>1</sup>                                                                               | 5          |
| General Education Requirement |                                                                                                                                                    | 3          |
| <b>Hours</b>                  |                                                                                                                                                    | <b>15</b>  |
| <b>Senior</b>                 |                                                                                                                                                    |            |
| <b>Autumn</b>                 |                                                                                                                                                    |            |
| BIOB 410                      | Immunology <sup>1</sup>                                                                                                                            | 3          |
| BIOM 360<br>& BIOM 361        | General Microbiology<br>and General Microbiology Lab <sup>1</sup>                                                                                  | 5          |
| General Education Requirement |                                                                                                                                                    | 3          |
| Upper Division Elective       |                                                                                                                                                    | 3          |
| <b>Hours</b>                  |                                                                                                                                                    | <b>14</b>  |
| <b>Spring</b>                 |                                                                                                                                                    |            |
| BCH 486                       | Biochemistry Research Lab <sup>1</sup>                                                                                                             | 3          |
| BIOM 435                      | Virology <sup>1</sup>                                                                                                                              | 3          |
| Upper Division Elective       |                                                                                                                                                    | 8          |
| <b>Hours</b>                  |                                                                                                                                                    | <b>14</b>  |
| <b>Total Hours</b>            |                                                                                                                                                    | <b>121</b> |

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| Course                        | Title                                                                            | Hours     |
|-------------------------------|----------------------------------------------------------------------------------|-----------|
| <b>Freshman</b>               |                                                                                  |           |
| <b>Autumn</b>                 |                                                                                  |           |
| BIOB 160<br>& BIOB 161N       | Principles of Living Systems<br>and Principles of Living Systems Lab             | 4         |
| CHMY 141N<br>& CHMY 143N      | College Chemistry I<br>and College Chemistry II <sup>1</sup>                     | 5         |
| M 171<br>or M 162             | Calculus I <sup>1</sup><br>or Applied Calculus                                   | 4         |
| BIOB 194                      | Your Future in Biology <sup>1</sup>                                              | 1         |
| <b>Hours</b>                  |                                                                                  | <b>14</b> |
| <b>Spring</b>                 |                                                                                  |           |
| BIOB 170N<br>& BIOB 171N      | Principles of Biological Diversity<br>and Principles of Biological Diversity Lab | 5         |
| CHMY 143N<br>& CHMY 144N      | College Chemistry II<br>and College Chemistry II Lab <sup>1</sup>                | 5         |
| WRIT 101                      | College Writing I                                                                | 4         |
| General Education Requirement |                                                                                  | 3         |
| <b>Hours</b>                  |                                                                                  | <b>17</b> |
| <b>Sophomore</b>              |                                                                                  |           |
| <b>Autumn</b>                 |                                                                                  |           |
| BIOB 260                      | Cellular and Molecular Biology                                                   | 4         |
| CHMY 221<br>& CHMY 222        | Organic Chemistry I<br>and Organic Chemistry I Lab <sup>1</sup>                  | 5         |
| CSCI 150                      | Introduction to Computer Science <sup>1</sup>                                    | 3         |
| Intermediate Writing Course   |                                                                                  | 3         |
| <b>Hours</b>                  |                                                                                  | <b>15</b> |
| <b>Spring</b>                 |                                                                                  |           |
| BIOB 272                      | Genetics and Evolution                                                           | 4         |
| CHMY 223<br>& CHMY 224        | Organic Chemistry II<br>and Organic Chemistry II Lab <sup>1</sup>                | 5         |
| STAT 216                      | Introduction to Statistics <sup>1</sup>                                          | 4         |
| General Education Requirement |                                                                                  | 3         |
| <b>Hours</b>                  |                                                                                  | <b>16</b> |
| <b>Junior</b>                 |                                                                                  |           |
| <b>Autumn</b>                 |                                                                                  |           |
| BIOB 301                      | Developmental Biology <sup>1</sup>                                               | 3         |
| BIOM 360<br>& BIOM 361        | General Microbiology<br>and General Microbiology Lab <sup>1</sup>                | 5         |
| PHSX 205N<br>& PHSX 206N      | College Physics I<br>and College Physics I Laboratory <sup>1</sup>               | 5         |
| General Education Requirement |                                                                                  | 3         |
| <b>Hours</b>                  |                                                                                  | <b>16</b> |
| <b>Spring</b>                 |                                                                                  |           |
| BIOB 375                      | General Genetics <sup>1</sup>                                                    | 3         |
| PHSX 207N<br>& PHSX 208N      | College Physics II<br>and College Physics II Laboratory <sup>1</sup>             | 5         |
| General Education Requirement |                                                                                  | 3         |
| Upper Division Elective       |                                                                                  | 3         |
| <b>Hours</b>                  |                                                                                  | <b>14</b> |
| <b>Senior</b>                 |                                                                                  |           |
| <b>Autumn</b>                 |                                                                                  |           |
| BCH 480                       | Advanced Biochemistry I <sup>1</sup>                                             | 3         |
| BIOB 490                      | Advanced Undergraduate Research <sup>1</sup>                                     | 3         |
| General Education Requirement |                                                                                  | 3         |
| Upper Division Elective       |                                                                                  | 6         |
| <b>Hours</b>                  |                                                                                  | <b>15</b> |

| Spring                  |                                        |            |
|-------------------------|----------------------------------------|------------|
| BCH 482                 | Advanced Biochemistry II <sup>1</sup>  | 3          |
| BCH 486                 | Biochemistry Research Lab <sup>1</sup> | 3          |
| BIOH 447                | Genes and Development Lab <sup>1</sup> | 3          |
| Upper Division Elective |                                        | 4          |
| Elective                |                                        | 1          |
| <b>Hours</b>            |                                        | <b>14</b>  |
| <b>Total Hours</b>      |                                        | <b>121</b> |

<sup>1</sup> Indicates you have a choice of alternative courses for degree completion. See catalog, Degree Works, or your advisor for other options.

## Microbiology, Immunology, & Infectious Disease B.S.

Microbiology is the study of microorganisms including bacteria, fungi, viruses, and protozoa. The Microbiology, Immunology, & Infectious Disease major emphasizes microbial structure and function as well as interactions with human health. This is a graduate prep program and is appropriate for students interested in research careers in academia or private or government laboratories. It is also an excellent concentration for pre-medical sciences students.

### General Degree Requirements

To earn a baccalaureate degree, all students must complete successfully, in addition to any other requirements, the University of Montana General Education Requirements. Please refer to the General Education Requirements page (p. 39) for more information.

Additional requirements for graduation can be found on the Degree/Certificate Requirements for Graduation page (p. 36).

Unless otherwise noted in individual program requirements, a minimum grade point average of 2.00 in all work attempted at the University of Montana-Missoula is required for graduation. Please see the Academic Policies and Procedures page (p. 25) for information on how your GPA is calculated.

Courses taken to satisfy the requirements of a major, minor, or certificate program must be completed with a grade of C- or better unless a higher grade is noted in the program requirements.

## Bachelor of Science - Microbiology, Immunology, & Infectious Disease Course Requirements

| Code                                            | Title                                  | Hours |
|-------------------------------------------------|----------------------------------------|-------|
| <b>Biology/Microbiology Lower-Division Core</b> |                                        |       |
| Complete all of the following courses:          |                                        |       |
| BIOB 160                                        | Principles of Living Systems           | 3     |
| BIOB 161N                                       | Principles of Living Systems Lab       | 1     |
| BIOB 170N                                       | Principles of Biological Diversity     | 3     |
| BIOB 171N                                       | Principles of Biological Diversity Lab | 2     |
| BIOB 260                                        | Cellular and Molecular Biology         | 4     |
| BIOB 272                                        | Genetics and Evolution                 | 4     |
| <b>Upper-Division Microbiology Core Courses</b> |                                        |       |
| Complete all of the following courses:          |                                        |       |

|          |                                         |   |
|----------|-----------------------------------------|---|
| BIOB 410 | Immunology                              | 3 |
| BIOM 360 | General Microbiology                    | 3 |
| BIOM 361 | General Microbiology Lab                | 2 |
| BIOM 410 | Microbial Genetics                      | 3 |
| BIOM 411 | Experimental Microbial Genetics Lab     | 1 |
| BIOM 415 | Microbial Diversity Ecology & Evolution | 3 |
| BIOM 450 | Microbial Physiology                    | 3 |
| BIOM 451 | Microbial Physiology Lab                | 1 |

### Advanced Infectious Disease Elective

Complete one of the following courses: 3-4

|                     |                                                   |
|---------------------|---------------------------------------------------|
| BIOM 402            | Pathogenic Microbes                               |
| BIOM 427 & BIOM 428 | General Parasitology and General Parasitology Lab |
| BIOM 435            | Virology                                          |
| BIOM 460            | Ecology of Infectious Diseases                    |

### Biochemistry

Complete either one semester or one year of Biochemistry courses: 4-6

|            |                              |
|------------|------------------------------|
| BCH 380    | Biochemistry                 |
| or BCH 480 | Advanced Biochemistry I      |
| & BCH 482  | and Advanced Biochemistry II |

### Additional Upper-Division Depth Courses in Microbiology

Complete 6 credits of the following courses. Infectious Disease electives may be counted here as long as the are not already applying to the Infectious Disease Elective requirement. 6

|                     |                                                        |
|---------------------|--------------------------------------------------------|
| BIOB 411            | Immunology Laboratory                                  |
| BIOB 483            | Phylogenics and Evolution                              |
| BIOB 486            | Genomics                                               |
| BIOM 327            | Vector-Borne Diseases: Public Health Perspectives      |
| BIOM 402 & BIOM 403 | Pathogenic Microbes and Pathogenic Microbes Laboratory |
| BIOM 420            | Host-Microbe Interactions                              |
| BIOM 427 & BIOM 428 | General Parasitology and General Parasitology Lab      |
| BIOM 435            | Virology                                               |
| BIOM 460            | Ecology of Infectious Diseases                         |
| BIOM 490            | Advanced Undergraduate Research                        |

### Mathematics & Computer Science

Complete two of the following courses. Only one may be in calculus. 7-8

|          |                                  |
|----------|----------------------------------|
| CSCI 150 | Introduction to Computer Science |
| M 162    | Applied Calculus                 |
| or M 171 | Calculus I                       |
| STAT 216 | Introduction to Statistics       |

### Chemistry

|                       |                                                   |   |
|-----------------------|---------------------------------------------------|---|
| CHMY 141N & CHMY 142N | College Chemistry I and College Chemistry I Lab   | 5 |
| CHMY 143N & CHMY 144N | College Chemistry II and College Chemistry II Lab | 5 |
| CHMY 221 & CHMY 222   | Organic Chemistry I and Organic Chemistry I Lab   | 5 |

|                        |                                                      |   |
|------------------------|------------------------------------------------------|---|
| CHMY 223<br>& CHMY 224 | Organic Chemistry II<br>and Organic Chemistry II Lab | 5 |
|------------------------|------------------------------------------------------|---|

**Physics**

Complete one of the following Physics sequences: 10

## Algebra- and Trigonometry-based Physics:

PHSX 205N College Physics I  
& PHSX 206N and College Physics I Laboratory

PHSX 207N College Physics II  
& PHSX 208N and College Physics II Laboratory

## Calculus-based Physics:

PHSX 215N Fundamentals of Physics with Calculus I  
& PHSX 216N and Physics Laboratory I with Calculus

PHSX 217N Fundamentals of Physics with Calculus II  
& PHSX 218N and Physics Laboratory II with Calculus

**Writing in the Disciplines Requirement**

To complete the General Education Requirement for Writing in the Disciplines, Microbiology, Immunology & Infectious Disease students can either take a complete writing course (in or outside of DBS) or partial writing courses (2-3) within the DBS Distributed Model. 3

**Total Hours** **89-93**

<sup>1</sup> The lower-division core should be completed before attempting most upper-division major courses. AP Biology credit with a score of 3 may be substituted for either BIOB 160/BIOB 161N or BIOB 170N/BIOB 171N.

**Writing in the Disciplines Distributed Model Courses for Biological Sciences**

| Code                                           | Title                                             | Hours |
|------------------------------------------------|---------------------------------------------------|-------|
| <b>1/3 Writing in the Disciplines Courses</b>  |                                                   |       |
| BCH 482                                        | Advanced Biochemistry II                          | 3     |
| BIOB 410                                       | Immunology                                        | 3     |
| BIOB 425                                       | Advanced Cellular & Molecular Biology             | 3     |
| BIOB 483                                       | Phylogenics and Evolution                         | 3     |
| BIOE 371                                       | General Ecology Lab (equivalent to 271)           | 2     |
| BIOE 403                                       | Comparative Vertebrate Anatomy                    | 4     |
| BIOE 428                                       | Freshwater Ecology                                | 5     |
| BIOH 447                                       | Genes and Development Lab                         | 3     |
| BIOM 327                                       | Vector-Borne Diseases: Public Health Perspectives | 3     |
| BIOM 435                                       | Virology                                          | 3     |
| BIOO 470                                       | Ornithology                                       | 4     |
| BIOO 475                                       | Mammalogy                                         | 4     |
| WILD 470                                       | Conservation of Wildlife Populations              | 4     |
| <b>2/3 Writing in the Disciplines Courses</b>  |                                                   |       |
| BCH 486                                        | Biochemistry Research Lab                         | 3     |
| BCH 499                                        | Senior Thesis/Capstone                            | 3-6   |
| BIOB 411                                       | Immunology Laboratory                             | 2     |
| BIOB 499                                       | Undergraduate Thesis                              | 3-6   |
| BIOE 448                                       | Terrestrial Plant Ecology                         | 4     |
| BIOE 485                                       | Plant Evolution                                   | 3     |
| BIOM 499                                       | Undergraduate Thesis                              | 3-6   |
| <b>Full Writing in the Disciplines Courses</b> |                                                   |       |

|          |                                  |   |
|----------|----------------------------------|---|
| BIOH 462 | Principles of Medical Physiology | 3 |
| BIOM 420 | Host-Microbe Interactions        | 3 |

**Four Year Plan**

| Course                        | Title                                                                            | Hours     |
|-------------------------------|----------------------------------------------------------------------------------|-----------|
| <b>Freshman</b>               |                                                                                  |           |
| <b>Autumn</b>                 |                                                                                  |           |
| BIOB 160<br>& BIOB 161N       | Principles of Living Systems<br>and Principles of Living Systems Lab             | 4         |
| CHMY 141N<br>& CHMY 142N      | College Chemistry I<br>and College Chemistry I Lab                               | 5         |
| M 162<br>or M 171             | Applied Calculus<br>or Calculus I                                                | 4         |
| BIOB 194                      | Your Future in Biology                                                           | 1         |
| <b>Hours</b>                  |                                                                                  | <b>14</b> |
| <b>Spring</b>                 |                                                                                  |           |
| BIOB 170N<br>& BIOB 171N      | Principles of Biological Diversity<br>and Principles of Biological Diversity Lab | 5         |
| CHMY 143N<br>& CHMY 144N      | College Chemistry II<br>and College Chemistry II Lab                             | 5         |
| WRIT 101                      | College Writing I                                                                | 4         |
| General Education Requirement |                                                                                  | 3         |
| <b>Hours</b>                  |                                                                                  | <b>17</b> |
| <b>Sophomore</b>              |                                                                                  |           |
| <b>Autumn</b>                 |                                                                                  |           |
| BIOB 260                      | Cellular and Molecular Biology                                                   | 4         |
| CHMY 221<br>& CHMY 222        | Organic Chemistry I<br>and Organic Chemistry I Lab                               | 5         |
| BIOM 360<br>& BIOM 361        | General Microbiology<br>and General Microbiology Lab                             | 5         |
| Elective                      |                                                                                  | 1         |
| <b>Hours</b>                  |                                                                                  | <b>15</b> |
| <b>Spring</b>                 |                                                                                  |           |
| BIOB 272                      | Genetics and Evolution                                                           | 4         |
| CHMY 223<br>& CHMY 224        | Organic Chemistry II<br>and Organic Chemistry II Lab                             | 5         |
| CSCI 150                      | Introduction to Computer Science <sup>1</sup>                                    | 3         |
| Intermediate Writing Course   |                                                                                  | 3         |
| <b>Hours</b>                  |                                                                                  | <b>15</b> |
| <b>Junior</b>                 |                                                                                  |           |
| <b>Autumn</b>                 |                                                                                  |           |
| BCH 480                       | Advanced Biochemistry I <sup>1</sup>                                             | 3         |
| PHSX 205N<br>& PHSX 206N      | College Physics I<br>and College Physics I Laboratory <sup>1</sup>               | 5         |
| BIOM 327                      | Vector-Borne Diseases: Public Health Perspectives <sup>1</sup>                   | 3         |
| General Education Requirement |                                                                                  | 3         |
| <b>Hours</b>                  |                                                                                  | <b>14</b> |
| <b>Spring</b>                 |                                                                                  |           |
| BCH 482                       | Advanced Biochemistry II <sup>1</sup>                                            | 3         |
| BIOM 415                      | Microbial Diversity Ecology & Evolution                                          | 3         |
| PHSX 207N<br>& PHSX 208N      | College Physics II<br>and College Physics II Laboratory                          | 5         |
| Elective                      |                                                                                  | 4         |
| <b>Hours</b>                  |                                                                                  | <b>15</b> |
| <b>Senior</b>                 |                                                                                  |           |
| <b>Autumn</b>                 |                                                                                  |           |
| BIOB 410                      | Immunology                                                                       | 3         |
| BIOM 450<br>& BIOM 451        | Microbial Physiology<br>and Microbial Physiology Lab (offered odd fall)          | 4         |
| General Education Requirement |                                                                                  | 3         |
| Upper Division Elective       |                                                                                  | 5         |
| <b>Hours</b>                  |                                                                                  | <b>15</b> |

| Spring                        |                                                                                        |            |
|-------------------------------|----------------------------------------------------------------------------------------|------------|
| BIOM 410<br>& BIOM 411        | Microbial Genetics<br>and Experimental Microbial Genetics Lab (offered even<br>spring) | 4          |
| BIOM 402                      | Pathogenic Microbes <sup>1</sup>                                                       | 3          |
| BIOM 435                      | Virology <sup>1</sup>                                                                  | 3          |
| General Education Requirement |                                                                                        | 6          |
| <b>Hours</b>                  |                                                                                        | <b>16</b>  |
| <b>Total Hours</b>            |                                                                                        | <b>121</b> |

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<sup>1</sup> Indicates you have a choice of alternative courses for degree completion.  
See catalog, Degree Works, or your advisor for other options.

## Integrative Microbiology B.A.

Microbiology is the study of microorganisms including bacteria, fungi, viruses, and protozoa. The Integrative Microbiology major takes an interdisciplinary approach to the study of microbial structure and function and encourages the integration of microbiology with the study of other disciplines.

## General Degree Requirements

To earn a baccalaureate degree, all students must complete successfully, in addition to any other requirements, the University of Montana General Education Requirements. Please refer to the General Education Requirements page (p. 39) for more information.

Additional requirements for graduation can be found on the Degree/Certificate Requirements for Graduation page (p. 36).

Unless otherwise noted in individual program requirements, a minimum grade point average of 2.00 in all work attempted at the University of Montana-Missoula is required for graduation. Please see the Academic Policies and Procedures page (p. 25) for information on how your GPA is calculated.

Courses taken to satisfy the requirements of a major, minor, or certificate program must be completed with a grade of C- or better unless a higher grade is noted in the program requirements.

## Bachelor of Arts - Integrative Microbiology

### Course Requirements

| Code                                                        | Title                                  | Hours |
|-------------------------------------------------------------|----------------------------------------|-------|
| <b>Biology &amp; Microbiology Core Courses</b> <sup>1</sup> |                                        |       |
| Complete all of the following courses:                      |                                        |       |
| BIOB 160                                                    | Principles of Living Systems           | 3     |
| BIOB 161N                                                   | Principles of Living Systems Lab       | 1     |
| BIOB 170N                                                   | Principles of Biological Diversity     | 3     |
| BIOB 171N                                                   | Principles of Biological Diversity Lab | 2     |
| BIOB 260                                                    | Cellular and Molecular Biology         | 4     |
| BIOB 272                                                    | Genetics and Evolution                 | 4     |
| <b>Major Courses</b>                                        |                                        |       |
| Complete all of the following courses:                      |                                        |       |
| BIOM 360                                                    | General Microbiology                   | 3     |
| BIOM 361                                                    | General Microbiology Lab               | 2     |

|          |                                         |   |
|----------|-----------------------------------------|---|
| BIOM 410 | Microbial Genetics                      | 3 |
| BIOM 411 | Experimental Microbial Genetics Lab     | 1 |
| BIOM 415 | Microbial Diversity Ecology & Evolution | 3 |
| BIOM 450 | Microbial Physiology                    | 3 |
| BIOM 451 | Microbial Physiology Lab                | 1 |

### Microbiology Electives

Complete 9 credits of the following courses: 9

|                        |                                                           |
|------------------------|-----------------------------------------------------------|
| BIOB 410<br>& BIOB 411 | Immunology<br>and Immunology Laboratory                   |
| BIOB 483               | Phylogenics and Evolution                                 |
| BIOB 486               | Genomics                                                  |
| BIOE 400               | Aquatic Microbial Ecology                                 |
| BIOM 327               | Vector-Borne Diseases: Public Health<br>Perspectives      |
| BIOM 402<br>& BIOM 403 | Pathogenic Microbes<br>and Pathogenic Microbes Laboratory |
| BIOM 420               | Host-Microbe Interactions                                 |
| BIOM 427<br>& BIOM 428 | General Parasitology<br>and General Parasitology Lab      |
| BIOM 435               | Virology                                                  |
| BIOM 460               | Ecology of Infectious Diseases                            |
| BIOM 490               | Advanced Undergraduate Research                           |

### Chemistry

Complete all of the following courses:

|           |                                                 |   |
|-----------|-------------------------------------------------|---|
| BCH 380   | Biochemistry                                    | 4 |
| CHMY 121N | Introduction to General Chemistry               | 4 |
| CHMY 123  | Introduction to Organic and Biochemistry        | 4 |
| CHMY 124  | Introduction to Organic and Biochemistry<br>Lab | 2 |

### Mathematics, Computer Science, Physics

Complete two of the following courses. Only one may be in calculus. 7-10

|                          |                                                                                     |
|--------------------------|-------------------------------------------------------------------------------------|
| CSCI 150                 | Introduction to Computer Science                                                    |
| M 162<br>or M 171        | Applied Calculus<br>Calculus I                                                      |
| M 172                    | Calculus II                                                                         |
| PHSX 205N<br>& PHSX 206N | College Physics I<br>and College Physics I Laboratory                               |
| PHSX 207N<br>& PHSX 208N | College Physics II<br>and College Physics II Laboratory                             |
| PHSX 215N<br>& PHSX 216N | Fundamentals of Physics with Calculus I<br>and Physics Laboratory I with Calculus   |
| PHSX 217N<br>& PHSX 218N | Fundamentals of Physics with Calculus II<br>and Physics Laboratory II with Calculus |
| STAT 216                 | Introduction to Statistics                                                          |

### Integrative Science Electives

Complete 9 credits of the following courses from any category: 9

#### Health Microbiology

|                        |                                                                                                                                     |
|------------------------|-------------------------------------------------------------------------------------------------------------------------------------|
| BIOH 365<br>& BIOH 366 | Human Anatomy and Physiology for Health<br>Professions I<br>and Human Anatomy and Physiology for<br>Health Professions I Laboratory |
|------------------------|-------------------------------------------------------------------------------------------------------------------------------------|



|                              |                                                                                                                              |
|------------------------------|------------------------------------------------------------------------------------------------------------------------------|
| BIOH 370<br>& BIOH 371       | Human Anatomy and Physiology for Health Professions II and Human Anatomy and Physiology for Health Professions II Laboratory |
| PUBH 155                     | Reimagining Global Health: Biosocial Perspectives                                                                            |
| PUBH 325                     | Environmental and Occupational Health                                                                                        |
| <b>Brewing/Oenology</b>      |                                                                                                                              |
| CHMY 311                     | Analytical Chemistry-Quantitative Analysis                                                                                   |
| CHMY 313                     | Introduction to Brewing Science                                                                                              |
| CHMY 314                     | Brewing Science                                                                                                              |
| <b>Analytics/Programming</b> |                                                                                                                              |
| CSCI 151                     | Interdisciplinary Computer Science I                                                                                         |
| CSCI 152                     | Interdisciplinary Computer Science II                                                                                        |
| CSCI 172                     | Intro to Computer Modeling                                                                                                   |
| STAT 451<br>& STAT 457       | Statistical Methods I and Computer Data Analysis I                                                                           |
| STAT 452<br>& STAT 458       | Statistical Methods II and Computer Data Analysis II                                                                         |
| <b>Water Microbiology</b>    |                                                                                                                              |
| ERTH 406                     | Global Water Crises                                                                                                          |
| GEO 202                      | The Water Planet                                                                                                             |
| GEO 421                      | Hydrology                                                                                                                    |
| NRSM 345                     | Watershed Dynamics and Management Issues                                                                                     |
| NRSM 385                     | Watershed Hydrology                                                                                                          |
| <b>Soil Microbiology</b>     |                                                                                                                              |
| NRSM 210N                    | Soils, Water and Climate                                                                                                     |
| NRSM 211N                    | Soils and Water                                                                                                              |
| NRSM 212N                    | Ecology, Physics and Taxonomy of Soils                                                                                       |
| NRSM 415                     | Environmental Soil Science                                                                                                   |

### Writing in the Disciplines Requirement

To complete the General Education Requirement for Writing in the Disciplines, Integrative Microbiology students can either take a complete writing course (in or outside of DBS) or partial writing courses (2-3) within the DBS Distributed Model.

**Total Hours** **72-75**

<sup>1</sup> The lower-division core should be completed before attempting most upper-division major courses. AP Biology credit with a score of 3 may be substituted for either BIOB 160/BIOB 161N or BIOB 170N/BIOB 171N.

## Writing in the Disciplines Distributed Model Courses for Biological Sciences

| Code                                          | Title                                   | Hours |
|-----------------------------------------------|-----------------------------------------|-------|
| <b>1/3 Writing in the Disciplines Courses</b> |                                         |       |
| BCH 482                                       | Advanced Biochemistry II                | 3     |
| BIOB 410                                      | Immunology                              | 3     |
| BIOB 425                                      | Advanced Cellular & Molecular Biology   | 3     |
| BIOB 483                                      | Phylogenics and Evolution               | 3     |
| BIOE 371                                      | General Ecology Lab (equivalent to 271) | 2     |
| BIOE 403                                      | Comparative Vertebrate Anatomy          | 4     |
| BIOE 428                                      | Freshwater Ecology                      | 5     |

|          |                                                   |   |
|----------|---------------------------------------------------|---|
| BIOH 447 | Genes and Development Lab                         | 3 |
| BIOB 327 | Vector-Borne Diseases: Public Health Perspectives | 3 |
| BIOB 435 | Virology                                          | 3 |
| BIOO 470 | Ornithology                                       | 4 |
| BIOO 475 | Mammalogy                                         | 4 |
| WILD 470 | Conservation of Wildlife Populations              | 4 |

### 2/3 Writing in the Disciplines Courses

|          |                           |     |
|----------|---------------------------|-----|
| BCH 486  | Biochemistry Research Lab | 3   |
| BCH 499  | Senior Thesis/Capstone    | 3-6 |
| BIOB 411 | Immunology Laboratory     | 2   |
| BIOB 499 | Undergraduate Thesis      | 3-6 |
| BIOE 448 | Terrestrial Plant Ecology | 4   |
| BIOE 485 | Plant Evolution           | 3   |
| BIOB 499 | Undergraduate Thesis      | 3-6 |

### Full Writing in the Disciplines Courses

|          |                                  |   |
|----------|----------------------------------|---|
| BIOH 462 | Principles of Medical Physiology | 3 |
| BIOB 420 | Host-Microbe Interactions        | 3 |

## Four Year Plan

| Course                        | Title                                                                                     | Hours     |
|-------------------------------|-------------------------------------------------------------------------------------------|-----------|
| <b>Freshman</b>               |                                                                                           |           |
| <b>Autumn</b>                 |                                                                                           |           |
| BIOB 160<br>& BIOB 161N       | Principles of Living Systems and Principles of Living Systems Lab                         | 4         |
| CHMY 121N                     | Introduction to General Chemistry                                                         | 4         |
| M 162<br>or M 171             | Applied Calculus<br>or Calculus I                                                         | 4         |
| BIOB 194                      | Your Future in Biology                                                                    | 1         |
| WRIT 101                      | College Writing I                                                                         | 4         |
| <b>Hours</b>                  |                                                                                           | <b>17</b> |
| <b>Spring</b>                 |                                                                                           |           |
| BIOB 170N<br>& BIOB 171N      | Principles of Biological Diversity and Principles of Biological Diversity Lab             | 5         |
| CHMY 123<br>& CHMY 124        | Introduction to Organic and Biochemistry and Introduction to Organic and Biochemistry Lab | 6         |
| General Education Requirement |                                                                                           | 3         |
| <b>Hours</b>                  |                                                                                           | <b>14</b> |
| <b>Sophomore</b>              |                                                                                           |           |
| <b>Autumn</b>                 |                                                                                           |           |
| BIOB 260                      | Cellular and Molecular Biology                                                            | 4         |
| BIOB 360<br>& BIOB 361        | General Microbiology and General Microbiology Lab                                         | 5         |
| General Education Requirement |                                                                                           | 3         |
| Elective                      |                                                                                           | 3         |
| <b>Hours</b>                  |                                                                                           | <b>15</b> |
| <b>Spring</b>                 |                                                                                           |           |
| BIOB 272                      | Genetics and Evolution                                                                    | 4         |
| CSCI 150                      | Introduction to Computer Science <sup>1</sup>                                             | 3         |
| Intermediate Writing Course   |                                                                                           | 3         |
| General Education Requirement |                                                                                           | 3         |
| Elective                      |                                                                                           | 1         |
| <b>Hours</b>                  |                                                                                           | <b>14</b> |
| <b>Junior</b>                 |                                                                                           |           |
| <b>Autumn</b>                 |                                                                                           |           |
| BCH 380                       | Biochemistry                                                                              | 4         |
| BIOB 327                      | Vector-Borne Diseases: Public Health Perspectives (General Education Requirement)         | 3         |

|                                                                                   |            |
|-----------------------------------------------------------------------------------|------------|
| Integrative Science Elective                                                      | 3          |
| General Education Requirement                                                     | 3          |
| Upper Division Elective                                                           | 3          |
| <b>Hours</b>                                                                      | <b>16</b>  |
| <b>Spring</b>                                                                     |            |
| BIOM 415 Microbial Diversity Ecology & Evolution                                  | 3          |
| BIOM 460 Ecology of Infectious Diseases <sup>1</sup>                              | 3          |
| Integrative Science Elective                                                      | 3          |
| General Education Requirement                                                     | 3          |
| Elective                                                                          | 3          |
| <b>Hours</b>                                                                      | <b>15</b>  |
| <b>Senior</b>                                                                     |            |
| <b>Autumn</b>                                                                     |            |
| BIOM 450 Microbial Physiology<br>& BIOM 451 and Microbial Physiology Lab          | 4          |
| Upper Division Elective                                                           | 4          |
| Elective                                                                          | 7          |
| <b>Hours</b>                                                                      | <b>15</b>  |
| <b>Spring</b>                                                                     |            |
| BIOM 410 Microbial Genetics<br>& BIOM 411 and Experimental Microbial Genetics Lab | 4          |
| BIOM 435 Virology <sup>1</sup>                                                    | 3          |
| Upper Division Elective                                                           | 3          |
| Elective                                                                          | 5          |
| <b>Hours</b>                                                                      | <b>15</b>  |
| <b>Total Hours</b>                                                                | <b>121</b> |

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<sup>1</sup> Indicates you have a choice of alternative courses for degree completion. See catalog, Degree Works, or your advisor for other options.

## Medical Laboratory Science B.S.

### General Degree Requirements

To earn a baccalaureate degree, all students must complete successfully, in addition to any other requirements, the University of Montana General Education Requirements. Please refer to the General Education Requirements page (p. 39) for more information.

Additional requirements for graduation can be found on the Degree/Certificate Requirements for Graduation page (p. 36).

Unless otherwise noted in individual program requirements, a minimum grade point average of 2.00 in all work attempted at the University of Montana-Missoula is required for graduation. Please see the Academic Policies and Procedures page (p. 25) for information on how your GPA is calculated.

Courses taken to satisfy the requirements of a major, minor, or certificate program must be completed with a grade of C- or better unless a higher grade is noted in the program requirements.

## Bachelor of Science - Medical Laboratory Science

A degree in Medical Laboratory Science prepares students to perform various chemical, histological, and microbial laboratory procedures used in the diagnosis, study, and treatment of disease. Students with this degree seek employment in hospital laboratories, physicians' offices, and health departments. For clinical practice, a student must be

certified through the Board of Registry by completing a one-year clinical practicum.

### Course Requirements

| Code                                                                                                                                                                                                                                             | Title                                                                                                                               | Hours |
|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------------------------------------------------------|-------|
| <b>Lower-Division Biology Courses</b>                                                                                                                                                                                                            |                                                                                                                                     |       |
| Complete all of the following courses:                                                                                                                                                                                                           |                                                                                                                                     |       |
| BIOB 260                                                                                                                                                                                                                                         | Cellular and Molecular Biology                                                                                                      | 4     |
| BIOB 272                                                                                                                                                                                                                                         | Genetics and Evolution                                                                                                              | 4     |
| <b>Upper-Division Required Courses</b>                                                                                                                                                                                                           |                                                                                                                                     |       |
| Complete all of the following courses:                                                                                                                                                                                                           |                                                                                                                                     |       |
| BCH 380                                                                                                                                                                                                                                          | Biochemistry                                                                                                                        | 4     |
| or BCH 480<br>& BCH 482                                                                                                                                                                                                                          | Advanced Biochemistry I<br>and Advanced Biochemistry II                                                                             |       |
| BIOB 410                                                                                                                                                                                                                                         | Immunology                                                                                                                          | 3     |
| BIOH 365<br>& BIOH 366                                                                                                                                                                                                                           | Human Anatomy and Physiology for Health<br>Professions I<br>and Human Anatomy and Physiology for<br>Health Professions I Laboratory | 4     |
| BIOH 405                                                                                                                                                                                                                                         | Hematology                                                                                                                          | 3     |
| BIOM 360<br>& BIOM 361                                                                                                                                                                                                                           | General Microbiology<br>and General Microbiology Lab                                                                                | 5     |
| BIOM 402<br>& BIOM 403                                                                                                                                                                                                                           | Pathogenic Microbes<br>and Pathogenic Microbes Laboratory                                                                           | 5     |
| BIOM 427<br>& BIOM 428                                                                                                                                                                                                                           | General Parasitology<br>and General Parasitology Lab                                                                                | 4     |
| BIOM 435                                                                                                                                                                                                                                         | Virology                                                                                                                            | 3     |
| <b>Mathematics</b>                                                                                                                                                                                                                               |                                                                                                                                     |       |
| Complete all of the following courses:                                                                                                                                                                                                           |                                                                                                                                     |       |
| M 162                                                                                                                                                                                                                                            | Applied Calculus                                                                                                                    | 4     |
| or M 171                                                                                                                                                                                                                                         | Calculus I                                                                                                                          |       |
| STAT 216                                                                                                                                                                                                                                         | Introduction to Statistics                                                                                                          | 4     |
| <b>Chemistry</b>                                                                                                                                                                                                                                 |                                                                                                                                     |       |
| Complete all of the following courses:                                                                                                                                                                                                           |                                                                                                                                     |       |
| CHMY 141N<br>& CHMY 142N                                                                                                                                                                                                                         | College Chemistry I<br>and College Chemistry I Lab                                                                                  | 5     |
| CHMY 143N<br>& CHMY 144N                                                                                                                                                                                                                         | College Chemistry II<br>and College Chemistry II Lab                                                                                | 5     |
| CHMY 221<br>& CHMY 222                                                                                                                                                                                                                           | Organic Chemistry I<br>and Organic Chemistry I Lab                                                                                  | 5     |
| <b>Writing in the Disciplines Requirement</b>                                                                                                                                                                                                    |                                                                                                                                     |       |
| Complete the equivalent of a full writing course (either three 1/3 writing courses or one 2/3 writing course + one 1/3 writing course or one complete writing course).                                                                           |                                                                                                                                     |       |
| 4+1 students take BIOB 410 (a 1/3 writing course) and BIOB 411 (a 2/3 writing course).                                                                                                                                                           |                                                                                                                                     |       |
| 3+1 students take two 1/3 writing courses (BIOB 410 and BIOM 402). The Advanced Writing Requirement is completed with one more course, chosen from any of the courses in the list below. BIOB 411 is recommended by clinical practicum programs. |                                                                                                                                     |       |
| <b>4+1 or 3+1 Tracks</b>                                                                                                                                                                                                                         |                                                                                                                                     |       |
| Complete one of the following tracks:                                                                                                                                                                                                            |                                                                                                                                     | 24-37 |
| <b>4+1 Track <sup>1</sup></b>                                                                                                                                                                                                                    |                                                                                                                                     |       |
| Complete all of the following courses (24 credits):                                                                                                                                                                                              |                                                                                                                                     |       |

|                                                     |                                                         |
|-----------------------------------------------------|---------------------------------------------------------|
| BIOB 411                                            | Immunology Laboratory                                   |
| BIOM 407                                            | Clinical Diagnosis                                      |
| BIOM 408                                            | Clinical Diagnosis Lab                                  |
| CHMY 223                                            | Organic Chemistry II                                    |
| CHMY 224                                            | Organic Chemistry II Lab                                |
| CHMY 311                                            | Analytical Chemistry-Quantitative Analysis              |
| PHSX 205N<br>& PHSX 206N                            | College Physics I<br>and College Physics I Laboratory   |
| PHSX 207N<br>& PHSX 208N                            | College Physics II<br>and College Physics II Laboratory |
| <b>3+1 Track <sup>2</sup></b>                       |                                                         |
| Complete all of the following courses (37 credits): |                                                         |
| BIOH 470                                            | Summer Clinical Laboratory                              |
| BIOH 471                                            | Professional Training I                                 |
| BIOH 472                                            | Professional Training II                                |
| <b>Total Hours</b>                                  | <b>86-99</b>                                            |

<sup>1</sup> The 4+1 track is the more flexible option. Students complete the four years of the Bachelor's degree on the UM campus. They may then apply to a clinical practicum program anywhere in the country.

<sup>2</sup> The 3+1 track is the faster option as the clinical practicum year is part of the degree. Three years are spent on the UM campus, and then the clinical practicum year with the Montana University System Medical Laboratory Training program (or with one of our affiliated programs) is the fourth year of the Bachelor's degree.

The student must apply for the professional practicum to one of our affiliated programs during the autumn prior to enrollment. To be competitive for this practicum, a student must be in good academic standing with a minimum GPA of ~3.0 and demonstrate a commitment to the clinical laboratory profession. For more information, visit the Medical Laboratory Sciences website (<http://hs.umt.edu/medtech/>).

## Writing in the Disciplines Distributed Model Courses for Biological Sciences

| Code                                          | Title                                             | Hours |
|-----------------------------------------------|---------------------------------------------------|-------|
| <b>1/3 Writing in the Disciplines Courses</b> |                                                   |       |
| BCH 482                                       | Advanced Biochemistry II                          | 3     |
| BIOB 410                                      | Immunology                                        | 3     |
| BIOB 425                                      | Advanced Cellular & Molecular Biology             | 3     |
| BIOB 483                                      | Phylogenics and Evolution                         | 3     |
| BIOE 371                                      | General Ecology Lab (equivalent to 271)           | 2     |
| BIOE 403                                      | Comparative Vertebrate Anatomy                    | 4     |
| BIOE 428                                      | Freshwater Ecology                                | 5     |
| BIOH 447                                      | Genes and Development Lab                         | 3     |
| BIOM 327                                      | Vector-Borne Diseases: Public Health Perspectives | 3     |
| BIOM 435                                      | Virology                                          | 3     |
| BIOO 470                                      | Ornithology                                       | 4     |
| BIOO 475                                      | Mammalogy                                         | 4     |
| WILD 470                                      | Conservation of Wildlife Populations              | 4     |
| <b>2/3 Writing in the Disciplines Courses</b> |                                                   |       |
| BCH 486                                       | Biochemistry Research Lab                         | 3     |
| BCH 499                                       | Senior Thesis/Capstone                            | 3-6   |
| BIOB 411                                      | Immunology Laboratory                             | 2     |

|          |                           |     |
|----------|---------------------------|-----|
| BIOB 499 | Undergraduate Thesis      | 3-6 |
| BIOE 448 | Terrestrial Plant Ecology | 4   |
| BIOE 485 | Plant Evolution           | 3   |
| BIOM 499 | Undergraduate Thesis      | 3-6 |

### Full Writing in the Disciplines Courses

|          |                                  |   |
|----------|----------------------------------|---|
| BIOH 462 | Principles of Medical Physiology | 3 |
| BIOM 420 | Host-Microbe Interactions        | 3 |

## Plan for 4+1 Track

| Course                        | Title                                                                                                                               | Hours     |
|-------------------------------|-------------------------------------------------------------------------------------------------------------------------------------|-----------|
| <b>Freshman</b>               |                                                                                                                                     |           |
| <b>Autumn</b>                 |                                                                                                                                     |           |
| BIOB 160                      | Principles of Living Systems                                                                                                        | 3         |
| CHMY 141N<br>& CHMY 142N      | College Chemistry I<br>and College Chemistry I Lab                                                                                  | 5         |
| M 162                         | Applied Calculus                                                                                                                    | 4         |
| General Education Requirement |                                                                                                                                     | 3         |
| <b>Hours</b>                  |                                                                                                                                     | <b>15</b> |
| <b>Spring</b>                 |                                                                                                                                     |           |
| CHMY 143N<br>& CHMY 144N      | College Chemistry II<br>and College Chemistry II Lab                                                                                | 5         |
| WRIT 101                      | College Writing I                                                                                                                   | 4         |
| General Education Requirement |                                                                                                                                     | 3         |
| Elective                      |                                                                                                                                     | 3         |
| <b>Hours</b>                  |                                                                                                                                     | <b>15</b> |
| <b>Sophomore</b>              |                                                                                                                                     |           |
| <b>Autumn</b>                 |                                                                                                                                     |           |
| BIOB 260                      | Cellular and Molecular Biology                                                                                                      | 4         |
| CHMY 221<br>& CHMY 222        | Organic Chemistry I<br>and Organic Chemistry I Lab                                                                                  | 5         |
| BIOM 360<br>& BIOM 361        | General Microbiology<br>and General Microbiology Lab                                                                                | 5         |
| Elective                      |                                                                                                                                     | 1         |
| <b>Hours</b>                  |                                                                                                                                     | <b>15</b> |
| <b>Spring</b>                 |                                                                                                                                     |           |
| BIOB 272                      | Genetics and Evolution                                                                                                              | 4         |
| CHMY 223<br>& CHMY 224        | Organic Chemistry II<br>and Organic Chemistry II Lab                                                                                | 5         |
| STAT 216                      | Introduction to Statistics                                                                                                          | 4         |
| Intermediate Writing Course   |                                                                                                                                     | 3         |
| <b>Hours</b>                  |                                                                                                                                     | <b>16</b> |
| <b>Junior</b>                 |                                                                                                                                     |           |
| <b>Autumn</b>                 |                                                                                                                                     |           |
| BIOM 427<br>& BIOM 428        | General Parasitology<br>and General Parasitology Lab                                                                                | 4         |
| BIOB 410<br>& BIOB 411        | Immunology<br>and Immunology Laboratory                                                                                             | 5         |
| BIOH 365<br>& BIOH 366        | Human Anatomy and Physiology for Health<br>Professions I<br>and Human Anatomy and Physiology for Health<br>Professions I Laboratory | 4         |
| Elective                      |                                                                                                                                     | 3         |
| <b>Hours</b>                  |                                                                                                                                     | <b>16</b> |
| <b>Spring</b>                 |                                                                                                                                     |           |
| BIOM 402<br>& BIOM 403        | Pathogenic Microbes<br>and Pathogenic Microbes Laboratory                                                                           | 5         |
| BCH 380                       | Biochemistry                                                                                                                        | 4         |
| BIOH 405                      | Hematology                                                                                                                          | 3         |
| General Education Requirement |                                                                                                                                     | 3         |
| <b>Hours</b>                  |                                                                                                                                     | <b>15</b> |

|                               |                                                         |            |
|-------------------------------|---------------------------------------------------------|------------|
| <b>Senior</b>                 |                                                         |            |
| <b>Autumn</b>                 |                                                         |            |
| PHSX 205N<br>& PHSX 206N      | College Physics I<br>and College Physics I Laboratory   | 5          |
| CHMY 311                      | Analytical Chemistry-Quantitative Analysis              | 4          |
| General Education Requirement |                                                         | 6          |
| <b>Hours</b>                  |                                                         | <b>15</b>  |
| <b>Spring</b>                 |                                                         |            |
| BIOM 407<br>& BIOM 408        | Clinical Diagnosis<br>and Clinical Diagnosis Lab        | 3          |
| BIOM 435                      | Virology                                                | 3          |
| PHSX 207N<br>& PHSX 208N      | College Physics II<br>and College Physics II Laboratory | 5          |
| General Education Requirement |                                                         | 3          |
| <b>Hours</b>                  |                                                         | <b>14</b>  |
| <b>Total Hours</b>            |                                                         | <b>121</b> |

*Last updated Autumn 2025*

## Plan for 3+1 Track

|                                                   |                                                                                                                                     |              |
|---------------------------------------------------|-------------------------------------------------------------------------------------------------------------------------------------|--------------|
| <b>Course</b>                                     | <b>Title</b>                                                                                                                        | <b>Hours</b> |
| <b>Freshman</b>                                   |                                                                                                                                     |              |
| <b>Autumn</b>                                     |                                                                                                                                     |              |
| BIOB 160                                          | Principles of Living Systems                                                                                                        | 3            |
| CHMY 141N<br>& CHMY 142N                          | College Chemistry I<br>and College Chemistry I Lab                                                                                  | 5            |
| M 162                                             | Applied Calculus                                                                                                                    | 4            |
| General Education Requirement                     |                                                                                                                                     | 3            |
| <b>Hours</b>                                      |                                                                                                                                     | <b>15</b>    |
| <b>Spring</b>                                     |                                                                                                                                     |              |
| CHMY 143N<br>& CHMY 144N                          | College Chemistry II<br>and College Chemistry II Lab                                                                                | 5            |
| WRIT 101                                          | College Writing I                                                                                                                   | 4            |
| General Education Requirement                     |                                                                                                                                     | 6            |
| <b>Hours</b>                                      |                                                                                                                                     | <b>15</b>    |
| <b>Sophomore</b>                                  |                                                                                                                                     |              |
| <b>Autumn</b>                                     |                                                                                                                                     |              |
| BIOB 260                                          | Cellular and Molecular Biology                                                                                                      | 4            |
| CHMY 221<br>& CHMY 222                            | Organic Chemistry I<br>and Organic Chemistry I Lab                                                                                  | 5            |
| BIOM 360<br>& BIOM 361                            | General Microbiology<br>and General Microbiology Lab                                                                                | 5            |
| <b>Hours</b>                                      |                                                                                                                                     | <b>14</b>    |
| <b>Spring</b>                                     |                                                                                                                                     |              |
| BIOB 272                                          | Genetics and Evolution                                                                                                              | 4            |
| STAT 216                                          | Introduction to Statistics                                                                                                          | 4            |
| Intermediate Writing / Literary & Artistic Course |                                                                                                                                     | 3            |
| General Education Requirement                     |                                                                                                                                     | 3            |
| <b>Hours</b>                                      |                                                                                                                                     | <b>14</b>    |
| <b>Junior</b>                                     |                                                                                                                                     |              |
| <b>Autumn</b>                                     |                                                                                                                                     |              |
| BIOB 410<br>& BIOB 411                            | Immunology<br>and Immunology Laboratory                                                                                             | 5            |
| BIOH 365<br>& BIOH 366                            | Human Anatomy and Physiology for Health<br>Professions I<br>and Human Anatomy and Physiology for Health<br>Professions I Laboratory | 4            |
| BIOM 427<br>& BIOM 428                            | General Parasitology<br>and General Parasitology Lab                                                                                | 4            |
| General Education Requirement                     |                                                                                                                                     | 3            |
| <b>Hours</b>                                      |                                                                                                                                     | <b>16</b>    |

|                        |                                                           |            |
|------------------------|-----------------------------------------------------------|------------|
| <b>Spring</b>          |                                                           |            |
| BIOM 402<br>& BIOM 403 | Pathogenic Microbes<br>and Pathogenic Microbes Laboratory | 5          |
| BIOM 435               | Virology                                                  | 3          |
| BCH 380                | Biochemistry                                              | 4          |
| BIOH 405               | Hematology                                                | 3          |
| <b>Hours</b>           |                                                           | <b>15</b>  |
| <b>Summer</b>          |                                                           |            |
| BIOH 470               | Summer Clinical Laboratory                                | 12         |
| <b>Hours</b>           |                                                           | <b>12</b>  |
| <b>Senior</b>          |                                                           |            |
| <b>Autumn</b>          |                                                           |            |
| BIOH 471               | Professional Training I <sup>1</sup>                      | 13         |
| <b>Hours</b>           |                                                           | <b>13</b>  |
| <b>Spring</b>          |                                                           |            |
| BIOH 472               | Professional Training II <sup>1</sup>                     | 12         |
| <b>Hours</b>           |                                                           | <b>12</b>  |
| <b>Total Hours</b>     |                                                           | <b>126</b> |

*Last updated Autumn 2025*

<sup>1</sup> Year 4 Practicum / Internship at one of our affiliated programs. MUST apply to programs the prior fall.

## Neuroscience B.S. - Cellular and Molecular Neuroscience

The University of Montana Neuroscience Program also offers a combined Bachelor of Science and Master of Science degree in Neuroscience with an emphasis on Cellular & Molecular Neuroscience. This five-year ("4 + 1") accelerated program is specifically designed for students who have demonstrated academic excellence and are deeply interested in pursuing intensive research training in preparation for graduate/professional schools or those who wish to enter the biomedical/biotech sector with advanced standing. The first 3 years of study are aligned with the existing Cellular & Molecular track of the B.S. in Neuroscience. Some students in the Cognitive & Behavioral track may also be eligible, depending upon their course selections. In the 4th year, students will take graduate neuroscience courses and complete their B.S. degree. This will allow students to enter the Neuroscience Graduate Program with advanced standing and, pending completion and defense of an M.S. thesis project, earn an M.S. in 5 years. See the Neuroscience website (<https://www.umt.edu/neuroscience/default.php>) for details on the curriculum and regulations in the Neuroscience B.S./M.S. Program.

## General Degree Requirements

To earn a baccalaureate degree, all students must complete successfully, in addition to any other requirements, the University of Montana General Education Requirements. Please refer to the General Education Requirements page (p. 39) for more information.

Additional requirements for graduation can be found on the Degree/Certificate Requirements for Graduation page (p. 36).

Unless otherwise noted in individual program requirements, a minimum grade point average of 2.00 in all work attempted at the University of Montana-Missoula is required for graduation. Please see the Academic Policies and Procedures page (p. 25) for information on how your GPA is calculated.

Courses taken to satisfy the requirements of a major, minor, or certificate program must be completed with a grade of C- or better unless a higher grade is noted in the program requirements.

## Bachelor of Science - Neuroscience; Cellular and Molecular Concentration

### Course Requirements

| Code                                         | Title                                                                             | Hours |
|----------------------------------------------|-----------------------------------------------------------------------------------|-------|
| Neuroscience Core Courses                    |                                                                                   |       |
| Complete all of the following courses:       |                                                                                   |       |
| BIOB 260                                     | Cellular and Molecular Biology                                                    | 4     |
| BIOB 272                                     | Genetics and Evolution                                                            | 4     |
| NEUR 280                                     | Fundamental Neuroscience                                                          | 3     |
| NEUR 281                                     | Fundamentals of Neuroscience II: Cognition                                        | 3     |
| NEUR 380                                     | Molecular Neuroscience                                                            | 3     |
| NEUR 458                                     | Neuroscience Research Techniques Lab                                              | 4     |
| Complete one of the following courses:       |                                                                                   | 4     |
| BIOB 160 & BIOB 161N                         | Principles of Living Systems and Principles of Living Systems Lab                 |       |
| BCH 110 & BCH 111                            | Introductory Biology for Biochemists and Introductory Biology for Biochemists Lab |       |
| Other Required Courses                       |                                                                                   |       |
| Complete all of the following courses:       |                                                                                   |       |
| CHMY 141N & CHMY 142N                        | College Chemistry I and College Chemistry I Lab                                   | 5     |
| CHMY 143N & CHMY 144N                        | College Chemistry II and College Chemistry II Lab                                 | 5     |
| CHMY 221                                     | Organic Chemistry I                                                               | 3     |
| CHMY 222                                     | Organic Chemistry I Lab                                                           | 2     |
| CHMY 223                                     | Organic Chemistry II                                                              | 3     |
| M 162                                        | Applied Calculus                                                                  | 4     |
| PHSX 205N & PHSX 206N                        | College Physics I and College Physics I Laboratory                                | 5     |
| PHSX 207N & PHSX 208N                        | College Physics II and College Physics II Laboratory                              | 5     |
| Complete one of the following courses:       |                                                                                   |       |
| STAT 216 or PSYX 222                         | Introduction to Statistics Psychological Statistics                               | 3-4   |
| Upper-Division Major Courses                 |                                                                                   |       |
| Complete all of the following courses:       |                                                                                   |       |
| BCH 480                                      | Advanced Biochemistry I                                                           | 3     |
| BCH 482                                      | Advanced Biochemistry II                                                          | 3     |
| BIOB 425                                     | Advanced Cellular & Molecular Biology                                             | 3     |
| Complete 3 credits of the following courses: |                                                                                   | 3     |
| BIOB 301                                     | Developmental Biology                                                             |       |
| BIOB 435                                     | Comparative Animal Physiology                                                     |       |
| BIOH 365                                     | Human Anatomy and Physiology for Health Professions I                             |       |
| Complete one of the following courses:       |                                                                                   | 3     |
| BIOB 375                                     | General Genetics                                                                  |       |
| BIOB 468                                     | Endocrinology                                                                     |       |

|                                                                                                                                                                                                                                         |                                     |
|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-------------------------------------|
| KIN 330                                                                                                                                                                                                                                 | Motor Learning and Control          |
| NEUR 441                                                                                                                                                                                                                                | CNS Diseases                        |
| NEUR 491                                                                                                                                                                                                                                | Special Topics                      |
| PSYX 356                                                                                                                                                                                                                                | Human Neuropsychology               |
| <b>Intersection Courses</b>                                                                                                                                                                                                             |                                     |
| Complete one of the following courses:                                                                                                                                                                                                  |                                     |
| BIOE 406                                                                                                                                                                                                                                | Behavior & Evolution                |
| DANC 345                                                                                                                                                                                                                                | New Visions Dance                   |
| HTH 430                                                                                                                                                                                                                                 | Health and Mind/Body/Spirit         |
| PSYX 233                                                                                                                                                                                                                                | Fundamentals of Psychology of Aging |
| <b>Writing in the Disciplines Requirement</b>                                                                                                                                                                                           |                                     |
| To complete the General Education Requirement for Writing in the Disciplines, Neuroscience students can either take a complete writing course (in or outside of DBS) or partial writing courses (2-3) within the DBS Distributed Model. |                                     |
| <b>Total Hours</b>                                                                                                                                                                                                                      | <b>76-85</b>                        |

### Writing in the Disciplines Distributed Model Courses for Biological Sciences

| Code                                           | Title                                             | Hours |
|------------------------------------------------|---------------------------------------------------|-------|
| <b>1/3 Writing in the Disciplines Courses</b>  |                                                   |       |
| BCH 482                                        | Advanced Biochemistry II                          | 3     |
| BIOB 410                                       | Immunology                                        | 3     |
| BIOB 425                                       | Advanced Cellular & Molecular Biology             | 3     |
| BIOB 483                                       | Phylogenics and Evolution                         | 3     |
| BIOE 371                                       | General Ecology Lab (equivalent to 271)           | 2     |
| BIOE 403                                       | Comparative Vertebrate Anatomy                    | 4     |
| BIOE 428                                       | Freshwater Ecology                                | 5     |
| BIOH 447                                       | Genes and Development Lab                         | 3     |
| BIOM 327                                       | Vector-Borne Diseases: Public Health Perspectives | 3     |
| BIOM 435                                       | Virology                                          | 3     |
| BIOO 470                                       | Ornithology                                       | 4     |
| BIOO 475                                       | Mammalogy                                         | 4     |
| WILD 470                                       | Conservation of Wildlife Populations              | 4     |
| <b>2/3 Writing in the Disciplines Courses</b>  |                                                   |       |
| BCH 486                                        | Biochemistry Research Lab                         | 3     |
| BCH 499                                        | Senior Thesis/Capstone                            | 3-6   |
| BIOB 411                                       | Immunology Laboratory                             | 2     |
| BIOB 499                                       | Undergraduate Thesis                              | 3-6   |
| BIOE 448                                       | Terrestrial Plant Ecology                         | 4     |
| BIOE 485                                       | Plant Evolution                                   | 3     |
| BIOM 499                                       | Undergraduate Thesis                              | 3-6   |
| <b>Full Writing in the Disciplines Courses</b> |                                                   |       |
| BIOH 462                                       | Principles of Medical Physiology                  | 3     |
| BIOM 420                                       | Host-Microbe Interactions                         | 3     |

## Four Year Plan

| Course                | Title                                           | Hours |
|-----------------------|-------------------------------------------------|-------|
| <b>Freshman</b>       |                                                 |       |
| <b>Autumn</b>         |                                                 |       |
| CHMY 141N & CHMY 142N | College Chemistry I and College Chemistry I Lab | 5     |



|                                                  |                                                                      |                |
|--------------------------------------------------|----------------------------------------------------------------------|----------------|
| BIOB 160<br>& BIOB 161N                          | Principles of Living Systems<br>and Principles of Living Systems Lab | 4              |
| M 162                                            | Applied Calculus                                                     | 4              |
| WRIT 101                                         | College Writing I (or General Education Requirement)                 | 4              |
| HUSC 194                                         | Seminar/Workshop                                                     | 1              |
| <b>Hours</b>                                     |                                                                      | <b>18</b>      |
| <b>Spring</b>                                    |                                                                      |                |
| CHMY 143N<br>& CHMY 144N                         | College Chemistry II<br>and College Chemistry II Lab                 | 5              |
| STAT 216                                         | Introduction to Statistics                                           | 4              |
| PSYX 100S                                        | Intro to Psychology                                                  | 3              |
| WRIT 101                                         | College Writing I (or General Education Requirement)                 | 4              |
| <b>Hours</b>                                     |                                                                      | <b>16</b>      |
| <b>Sophomore</b>                                 |                                                                      |                |
| <b>Autumn</b>                                    |                                                                      |                |
| NEUR 280                                         | Fundamental Neuroscience                                             | 3              |
| CHMY 221<br>& CHMY 222                           | Organic Chemistry I<br>and Organic Chemistry I Lab                   | 5              |
| BIOB 260                                         | Cellular and Molecular Biology                                       | 4              |
| General Education Requirement                    |                                                                      | 3              |
| <b>Hours</b>                                     |                                                                      | <b>15</b>      |
| <b>Spring</b>                                    |                                                                      |                |
| NEUR 281                                         | Fundamentals of Neuroscience II: Cognition                           | 3              |
| CHMY 223<br>& CHMY 224                           | Organic Chemistry II<br>and Organic Chemistry II Lab                 | 5              |
| BIOB 272                                         | Genetics and Evolution                                               | 4              |
| General Education Requirement                    |                                                                      | 3              |
| <b>Hours</b>                                     |                                                                      | <b>15</b>      |
| <b>Junior</b>                                    |                                                                      |                |
| <b>Autumn</b>                                    |                                                                      |                |
| NEUR 380                                         | Molecular Neuroscience                                               | 3              |
| PHSX 205N<br>& PHSX 206N                         | College Physics I<br>and College Physics I Laboratory                | 5              |
| BCH 480                                          | Advanced Biochemistry I                                              | 3              |
| Additional Major Course I Elective <sup>1</sup>  |                                                                      | 3              |
| General Education Requirement                    |                                                                      | 3              |
| <b>Hours</b>                                     |                                                                      | <b>17</b>      |
| <b>Spring</b>                                    |                                                                      |                |
| BCH 482                                          | Advanced Biochemistry II                                             | 3              |
| PHSX 207N<br>& PHSX 208N                         | College Physics II<br>and College Physics II Laboratory              | 5              |
| BCH 482                                          | Advanced Biochemistry II                                             | 3              |
| Additional Major Course II Elective <sup>1</sup> |                                                                      | 3              |
| General Education Requirement                    |                                                                      | 3              |
| <b>Hours</b>                                     |                                                                      | <b>17</b>      |
| <b>Senior</b>                                    |                                                                      |                |
| <b>Autumn</b>                                    |                                                                      |                |
| NEUR 458                                         | Neuroscience Research Techniques Lab                                 | 4              |
| BIOE 406                                         | Behavior & Evolution (Intersection course)                           | 3-4            |
| or DANC 345                                      | or New Visions Dance                                                 |                |
| or HTH 430                                       | or Health and Mind/Body/Spirit                                       |                |
| or PSYX 233                                      | or Fundamentals of Psychology of Aging                               |                |
| Upper Division Elective <sup>2</sup>             |                                                                      | 6              |
| <b>Hours</b>                                     |                                                                      | <b>13-14</b>   |
| <b>Spring</b>                                    |                                                                      |                |
| BIOB 425                                         | Advanced Cellular & Molecular Biology                                | 3              |
| Upper Division Elective <sup>2</sup>             |                                                                      | 6              |
| General Education Requirement                    |                                                                      | 6              |
| <b>Hours</b>                                     |                                                                      | <b>15</b>      |
| <b>Total Hours</b>                               |                                                                      | <b>126-127</b> |

Last updated Autumn 2024

<sup>1</sup> The following neuroscience courses fulfill the Additional Major Course I and II elective categories as well as upper division electives: NEUR 441, NEUR 491 (Neuropharmacology), NEUR 491 (Neuroanatomy)

<sup>2</sup> Students can earn credit in Undergraduate Research in Neuroscience (NEUR 390 or NEUR 490) which will count as upper division elective credit.

## Neuroscience B.S. - Cognitive Neuroscience

The University of Montana Neuroscience Program also offers a combined Bachelor of Science and Master of Science degree in Neuroscience with an emphasis on Cellular & Molecular Neuroscience. This five-year ("4 + 1") accelerated program is specifically designed for students who have demonstrated academic excellence and are deeply interested in pursuing intensive research training in preparation for graduate/professional schools, or who wish to enter the biomedical/biotech sector with advanced standing. The first 3 years of study are aligned with the existing Cellular & Molecular track of the B.S. in Neuroscience. Some students in the Cognitive & Behavioral track may also be eligible, depending upon their course selections. In the 4th year, students will take graduate neuroscience courses and complete their B.S. degree. This will allow students to enter the Neuroscience Graduate Program with advanced standing and, pending completion and defense of an M.S. thesis project, earn an M.S. in 5 years. See the Neuroscience website (<https://www.umt.edu/neuroscience/default.php>) for details on the curriculum and regulations in the Neuroscience B.S./M.S. Program.

## General Degree Requirements

To earn a baccalaureate degree, all students must complete successfully, in addition to any other requirements, the University of Montana General Education Requirements. Please refer to the General Education Requirements page (p. 39) for more information.

Additional requirements for graduation can be found on the Degree/Certificate Requirements for Graduation page (p. 36).

Unless otherwise noted in individual program requirements, a minimum grade point average of 2.00 in all work attempted at the University of Montana-Missoula is required for graduation. Please see the Academic Policies and Procedures page (p. 25) for information on how your GPA is calculated.

Courses taken to satisfy the requirements of a major, minor, or certificate program must be completed with a grade of C- or better unless a higher grade is noted in the program requirements.

## Bachelor of Science - Neuroscience; Cognitive Neuroscience Concentration

### Course Requirements

| Code                                   | Title                                                                | Hours |
|----------------------------------------|----------------------------------------------------------------------|-------|
| <b>Neuroscience Core Courses</b>       |                                                                      |       |
| Complete all of the following courses: |                                                                      |       |
| BIOB 160<br>& BIOB 161N                | Principles of Living Systems<br>and Principles of Living Systems Lab | 4     |
| BIOB 260                               | Cellular and Molecular Biology                                       | 4     |
| BIOB 272                               | Genetics and Evolution                                               | 4     |

|          |                                            |   |
|----------|--------------------------------------------|---|
| NEUR 280 | Fundamental Neuroscience                   | 3 |
| NEUR 281 | Fundamentals of Neuroscience II: Cognition | 3 |
| NEUR 380 | Molecular Neuroscience                     | 3 |
| NEUR 458 | Neuroscience Research Techniques Lab       | 4 |

### Mathematics and Physics

Complete all of the following courses:

|             |                               |   |
|-------------|-------------------------------|---|
| M 162       | Applied Calculus              | 4 |
| PHSX 205N   | College Physics I             | 4 |
| PHSX 206N   | College Physics I Laboratory  | 1 |
| PHSX 207N   | College Physics II            | 4 |
| PHSX 208N   | College Physics II Laboratory | 1 |
| STAT 216    | Introduction to Statistics    | 4 |
| or PSYX 222 | Psychological Statistics      |   |

### Chemistry

Complete one of the following Chemistry sequences: 9-15

|                                    |                                              |  |
|------------------------------------|----------------------------------------------|--|
| Introductory Chemistry (9 Credits) |                                              |  |
| CHMY 121N                          | Introduction to General Chemistry            |  |
| CHMY 123                           | Introduction to Organic and Biochemistry     |  |
| CHMY 124                           | Introduction to Organic and Biochemistry Lab |  |
| College Chemistry (15 Credits)     |                                              |  |
| CHMY 141N                          | College Chemistry I                          |  |
| CHMY 142N                          | College Chemistry I Lab                      |  |
| CHMY 143N                          | College Chemistry II                         |  |
| CHMY 144N                          | College Chemistry II Lab                     |  |
| CHMY 221                           | Organic Chemistry I                          |  |
| CHMY 222                           | Organic Chemistry I Lab                      |  |

### Additional Major Courses

Complete all of the following courses:

|          |                                        |   |
|----------|----------------------------------------|---|
| BCH 380  | Biochemistry                           | 4 |
| PSYX 270 | Fundamentals of Psychology of Learning | 3 |
| PSYX 280 | Fundamentals of Memory and Cognition   | 3 |
| PSYX 356 | Human Neuropsychology                  | 3 |

Complete two of the following courses: 6-7

|          |                                                       |  |
|----------|-------------------------------------------------------|--|
| BIOB 301 | Developmental Biology                                 |  |
| BIOH 365 | Human Anatomy and Physiology for Health Professions I |  |
| KIN 330  | Motor Learning and Control                            |  |
| NEUR 441 | CNS Diseases                                          |  |
| NEUR 475 | Neuropharmacology                                     |  |
| NEUR 481 | Systems Neuroscience of Behavior and Cognition        |  |
| PSYX 352 | Comparative Psychology                                |  |

### Intersection Courses

Complete one of the following courses 1-9

|          |                                     |  |
|----------|-------------------------------------|--|
| BIOE 406 | Behavior & Evolution                |  |
| DANC 345 | New Visions Dance                   |  |
| HTH 430  | Health and Mind/Body/Spirit         |  |
| PSYX 233 | Fundamentals of Psychology of Aging |  |

### Writing in the Disciplines Requirement

To complete the General Education Requirement for Writing in the Disciplines, Neuroscience students can either take a complete writing course (in or outside of DBS) or partial writing courses (2-3) within the DBS Distributed Model.

**Total Hours 72-87**

## Writing in the Disciplines Distributed Model Courses for Biological Sciences

| Code                                          | Title                                             | Hours |
|-----------------------------------------------|---------------------------------------------------|-------|
| <b>1/3 Writing in the Disciplines Courses</b> |                                                   |       |
| BCH 482                                       | Advanced Biochemistry II                          | 3     |
| BIOB 410                                      | Immunology                                        | 3     |
| BIOB 425                                      | Advanced Cellular & Molecular Biology             | 3     |
| BIOB 483                                      | Phylogenics and Evolution                         | 3     |
| BIOE 371                                      | General Ecology Lab (equivalent to 271)           | 2     |
| BIOE 403                                      | Comparative Vertebrate Anatomy                    | 4     |
| BIOE 428                                      | Freshwater Ecology                                | 5     |
| BIOH 447                                      | Genes and Development Lab                         | 3     |
| BIOM 327                                      | Vector-Borne Diseases: Public Health Perspectives | 3     |
| BIOM 435                                      | Virology                                          | 3     |
| BIOO 470                                      | Ornithology                                       | 4     |
| BIOO 475                                      | Mammalogy                                         | 4     |
| WILD 470                                      | Conservation of Wildlife Populations              | 4     |

### 2/3 Writing in the Disciplines Courses

|          |                           |     |
|----------|---------------------------|-----|
| BCH 486  | Biochemistry Research Lab | 3   |
| BCH 499  | Senior Thesis/Capstone    | 3-6 |
| BIOB 411 | Immunology Laboratory     | 2   |
| BIOB 499 | Undergraduate Thesis      | 3-6 |
| BIOE 448 | Terrestrial Plant Ecology | 4   |
| BIOE 485 | Plant Evolution           | 3   |
| BIOM 499 | Undergraduate Thesis      | 3-6 |

### Full Writing in the Disciplines Courses

|          |                                  |   |
|----------|----------------------------------|---|
| BIOH 462 | Principles of Medical Physiology | 3 |
| BIOM 420 | Host-Microbe Interactions        | 3 |

## Four Year Plan

| Course               | Title                                                                                     | Hours     |
|----------------------|-------------------------------------------------------------------------------------------|-----------|
| <b>Freshman</b>      |                                                                                           |           |
| <b>Autumn</b>        |                                                                                           |           |
| CHMY 121N            | Introduction to General Chemistry                                                         | 4         |
| BIOB 160 & BIOB 161N | Principles of Living Systems and Principles of Living Systems Lab                         | 4         |
| M 162                | Applied Calculus (or prereq math course)                                                  | 4         |
| WRIT 101             | College Writing I (or General Education Requirement)                                      | 4         |
| HUSC 194             | Seminar/Workshop                                                                          | 1         |
| <b>Hours</b>         |                                                                                           | <b>17</b> |
| <b>Spring</b>        |                                                                                           |           |
| CHMY 123 & CHMY 124  | Introduction to Organic and Biochemistry and Introduction to Organic and Biochemistry Lab | 6         |
| STAT 216             | Introduction to Statistics                                                                | 4         |
| PSYX 100S            | Intro to Psychology                                                                       | 3         |
| WRIT 101             | College Writing I (or General Education Requirement)                                      | 4         |
| <b>Hours</b>         |                                                                                           | <b>17</b> |

**Sophomore**

| <b>Autumn</b>                 |                                        |           |
|-------------------------------|----------------------------------------|-----------|
| NEUR 280                      | Fundamental Neuroscience               | 3         |
| BIOB 260                      | Cellular and Molecular Biology         | 4         |
| PSYX 270                      | Fundamentals of Psychology of Learning | 3         |
| General Education Requirement |                                        | 6         |
| <b>Hours</b>                  |                                        | <b>16</b> |

| <b>Spring</b>                 |                                            |           |
|-------------------------------|--------------------------------------------|-----------|
| NEUR 281                      | Fundamentals of Neuroscience II: Cognition | 3         |
| BIOB 272                      | Genetics and Evolution                     | 4         |
| PSYX 280                      | Fundamentals of Memory and Cognition       | 3         |
| General Education Requirement |                                            | 6         |
| <b>Hours</b>                  |                                            | <b>16</b> |

| <b>Junior</b>                        |                                                       |           |
|--------------------------------------|-------------------------------------------------------|-----------|
| <b>Autumn</b>                        |                                                       |           |
| NEUR 380                             | Molecular Neuroscience                                | 3         |
| PHSX 205N<br>& PHSX 206N             | College Physics I<br>and College Physics I Laboratory | 5         |
| BCH 380                              | Biochemistry                                          | 4         |
| Upper Division Elective <sup>2</sup> |                                                       | 3         |
| <b>Hours</b>                         |                                                       | <b>15</b> |

| <b>Spring</b>                                        |                                                                                                                                                |              |
|------------------------------------------------------|------------------------------------------------------------------------------------------------------------------------------------------------|--------------|
| PHSX 207N<br>& PHSX 208N                             | College Physics II<br>and College Physics II Laboratory                                                                                        | 5            |
| PSYX 356                                             | Human Neuropsychology                                                                                                                          | 3            |
| Additional Major Course Elective <sup>1</sup>        |                                                                                                                                                | 3            |
| BIOE 406<br>or DANC 345<br>or HTH 430<br>or PSYX 233 | Behavior & Evolution (Intersection course)<br>or New Visions Dance<br>or Health and Mind/Body/Spirit<br>or Fundamentals of Psychology of Aging | 1-4          |
| General Education Requirement                        |                                                                                                                                                | 3            |
| <b>Hours</b>                                         |                                                                                                                                                | <b>15-18</b> |

| <b>Senior</b>                                        |                                                                                                                                                |              |
|------------------------------------------------------|------------------------------------------------------------------------------------------------------------------------------------------------|--------------|
| <b>Autumn</b>                                        |                                                                                                                                                |              |
| NEUR 458                                             | Neuroscience Research Techniques Lab                                                                                                           | 4            |
| BIOE 406<br>or DANC 345<br>or HTH 430<br>or PSYX 233 | Behavior & Evolution (Intersection Course)<br>or New Visions Dance<br>or Health and Mind/Body/Spirit<br>or Fundamentals of Psychology of Aging | 1-4          |
| Upper Division Elective <sup>2</sup>                 |                                                                                                                                                | 6            |
| General Education Requirement                        |                                                                                                                                                | 3            |
| <b>Hours</b>                                         |                                                                                                                                                | <b>14-17</b> |

| <b>Spring</b>                                 |  |                |
|-----------------------------------------------|--|----------------|
| Additional Major Course Elective <sup>1</sup> |  | 3              |
| Upper Division Elective <sup>2</sup>          |  | 6              |
| General Education Requirement                 |  | 3              |
| <b>Hours</b>                                  |  | <b>12</b>      |
| <b>Total Hours</b>                            |  | <b>122-128</b> |

*Last updated Autumn 2024*

<sup>1</sup> The following neuroscience courses fulfill the Additional Major Course elective categories as well as upper division electives: NEUR 441, NEUR 491 (Neuropharmacology), NEUR 491 (Neuroanatomy)

<sup>2</sup> Students can earn credit in Undergraduate Research in Neuroscience (NEUR 390 or NEUR 490) which will count as upper division elective credit.

## Biology Minor

### General Degree Requirements

To earn a baccalaureate degree, all students must complete successfully, in addition to any other requirements, the University of Montana General Education Requirements. Please refer to the General Education Requirements page (p. 39) for more information.

Additional requirements for graduation can be found on the Degree/Certificate Requirements for Graduation page (p. 36).

Unless otherwise noted in individual program requirements, a minimum grade point average of 2.00 in all work attempted at the University of Montana-Missoula is required for graduation. Please see the Academic Policies and Procedures page (p. 25) for information on how your GPA is calculated.

Courses taken to satisfy the requirements of a major, minor, or certificate program must be completed with a grade of C- or better unless a higher grade is noted in the program requirements.

### Minor - Biology

#### Course Requirements

The lower-division core should be completed before attempting most upper division BIO- courses. AP Biology credit with a score of 3 may be substituted for either BIOB 160 /BIOB 161NorBIOB 170N/BIOB 171N.

| Code                                                                                                         | Title                                  | Hours     |
|--------------------------------------------------------------------------------------------------------------|----------------------------------------|-----------|
| <b>Biology/Microbiology Lower-Division Core</b>                                                              |                                        |           |
| Complete all of the following courses:                                                                       |                                        |           |
| BIOB 160                                                                                                     | Principles of Living Systems           | 3         |
| BIOB 161N                                                                                                    | Principles of Living Systems Lab       | 1         |
| BIOB 170N                                                                                                    | Principles of Biological Diversity     | 3         |
| BIOB 171N                                                                                                    | Principles of Biological Diversity Lab | 2         |
| BIOB 260                                                                                                     | Cellular and Molecular Biology         | 4         |
| BIOB 272                                                                                                     | Genetics and Evolution                 | 4         |
| <b>Upper-Division Biology Requirement for the Minor</b>                                                      |                                        |           |
| Complete 8 300- or 400-level credits in courses with the following rubrics: BIOB, BIOE, BIOH, BIOL, or BIOO. |                                        | 8         |
| <b>Total Hours</b>                                                                                           |                                        | <b>25</b> |

### Biological Education Minor

This minor contains additional course requirements designed to meet state standards. Those interested in teaching in K-12 schools must complete the education/teaching concentration of a major in a teaching content area plus the Teacher Education Program through the Department of Teaching and Learning. Additional teaching areas can be added through completion of the education/teaching concentration of a major or education/teaching minor in that content area.

- Secondary Education Licensure Program (<https://www.umt.edu/education/departments/teaching-and-learning/tep/>)
- Licensure Degree Requirements (p. 151)

To complete this minor, you need to contact the Teaching and Learning Department. Approvals for this concentration must come from the Teaching and Learning Department.

Individuals completing this minor must also complete the education/teaching concentration of a major in another teaching content area.

## General Degree Requirements

To earn a baccalaureate degree, all students must complete successfully, in addition to any other requirements, the University of Montana General Education Requirements. Please refer to the General Education Requirements page (p. 39) for more information.

Additional requirements for graduation can be found on the Degree/Certificate Requirements for Graduation page (p. 36).

Unless otherwise noted in individual program requirements, a minimum grade point average of 2.00 in all work attempted at the University of Montana-Missoula is required for graduation. Please see the Academic Policies and Procedures page (p. 25) for information on how your GPA is calculated.

Courses taken to satisfy the requirements of a major, minor, or certificate program must be completed with a grade of C- or better unless a higher grade is noted in the program requirements.

## Minor - Biological Education Course Requirements

The lower-division core should be completed before attempting most upper division BIO- courses. AP Biology credit with a score of 3 may be substituted for either BIOB 160/BIOB 161N or BIOB 170N/BIOB 171N.

| Code                                            | Title                                    | Hours |
|-------------------------------------------------|------------------------------------------|-------|
| <b>Biology/Microbiology Lower-Division Core</b> |                                          |       |
| Complete all of the following courses:          |                                          |       |
| BIOB 160                                        | Principles of Living Systems             | 3     |
| BIOB 161N                                       | Principles of Living Systems Lab         | 1     |
| BIOB 170N                                       | Principles of Biological Diversity       | 3     |
| BIOB 171N                                       | Principles of Biological Diversity Lab   | 2     |
| BIOB 260                                        | Cellular and Molecular Biology           | 4     |
| BIOB 272                                        | Genetics and Evolution                   | 4     |
| <b>Upper-Division Core Courses</b>              |                                          |       |
| Complete all of the following courses:          |                                          |       |
| BIOM 360                                        | General Microbiology                     | 3     |
| BIOM 361                                        | General Microbiology Lab                 | 2     |
| <b>Mathematics</b>                              |                                          |       |
| Complete all of the following courses:          |                                          |       |
| M 162                                           | Applied Calculus <sup>1</sup>            | 4     |
| or M 171                                        | Calculus I                               |       |
| STAT 216                                        | Introduction to Statistics               | 4     |
| <b>Chemistry</b>                                |                                          |       |
| Complete all of the following courses:          |                                          |       |
| CHMY 121N                                       | Introduction to General Chemistry        | 4     |
| CHMY 123                                        | Introduction to Organic and Biochemistry | 4     |
| CHMY 485                                        | Laboratory Safety                        | 1     |
| <b>Environmental Geosciences</b>                |                                          |       |
| Complete one of the following courses:          |                                          | 3     |
| ERTH 101N                                       | Earth Systems Science                    |       |
| GEO 105N                                        | Oceanography                             |       |
| <b>Education Course</b>                         |                                          |       |

Complete the following course:

|                    |                                                  |           |
|--------------------|--------------------------------------------------|-----------|
| EDU 497            | Teaching and Assessing (Methods: 5 - 12 Science) | 4         |
| <b>Total Hours</b> |                                                  | <b>46</b> |

<sup>1</sup> Choose M 171, if you plan to take additional calculus courses, or if you plan a double major or minor in a field that requires more calculus (e.g. math, physics, biochemistry, computer science).

## Secondary Teaching Licensure

For endorsement to teach this subject, a student also must gain admission to the Teacher Education Program and meet all the requirements for secondary teaching licensure (p. 151). For more information, see the Teaching and Learning Department webpage (<https://www.umt.edu/education/departments/currinst/default.php>).

## Microbiology Minor General Degree Requirements

To earn a baccalaureate degree, all students must complete successfully, in addition to any other requirements, the University of Montana General Education Requirements. Please refer to the General Education Requirements page (p. 39) for more information.

Additional requirements for graduation can be found on the Degree/Certificate Requirements for Graduation page (p. 36).

Unless otherwise noted in individual program requirements, a minimum grade point average of 2.00 in all work attempted at the University of Montana-Missoula is required for graduation. Please see the Academic Policies and Procedures page (p. 25) for information on how your GPA is calculated.

Courses taken to satisfy the requirements of a major, minor, or certificate program must be completed with a grade of C- or better unless a higher grade is noted in the program requirements.

## Minor - Microbiology Course Requirements

| Code                                                                 | Title                                   | Hours     |
|----------------------------------------------------------------------|-----------------------------------------|-----------|
| <b>Complete all of the following courses:</b>                        |                                         |           |
| BIOM 360                                                             | General Microbiology                    | 3         |
| BIOM 361                                                             | General Microbiology Lab                | 2         |
| BIOM 410                                                             | Microbial Genetics                      | 3         |
| BIOM 411                                                             | Experimental Microbial Genetics Lab     | 1         |
| BIOM 415                                                             | Microbial Diversity Ecology & Evolution | 3         |
| BIOM 450                                                             | Microbial Physiology                    | 3         |
| BIOM 451                                                             | Microbial Physiology Lab                | 1         |
| <b>Additional Upper-Division Microbiology Requirement</b>            |                                         |           |
| Complete 3 additional upper-division credits in Microbiology (BIOM). |                                         | 3         |
| <b>Total Hours</b>                                                   |                                         | <b>19</b> |

# Neuroscience Minor

## General Degree Requirements

To earn a baccalaureate degree, all students must complete successfully, in addition to any other requirements, the University of Montana General Education Requirements. Please refer to the General Education Requirements page (p. 39) for more information.

Additional requirements for graduation can be found on the Degree/Certificate Requirements for Graduation page (p. 36).

Unless otherwise noted in individual program requirements, a minimum grade point average of 2.00 in all work attempted at the University of Montana-Missoula is required for graduation. Please see the Academic Policies and Procedures page (p. 25) for information on how your GPA is calculated.

Courses taken to satisfy the requirements of a major, minor, or certificate program must be completed with a grade of C- or better unless a higher grade is noted in the program requirements.

## Minor - Neuroscience

### Course Requirements

| Code                                   | Title                                                                | Hours        |
|----------------------------------------|----------------------------------------------------------------------|--------------|
| <b>Required Courses</b>                |                                                                      |              |
| Complete all of the following courses: |                                                                      |              |
| BIOB 160<br>& BIOB 161N                | Principles of Living Systems<br>and Principles of Living Systems Lab | 4            |
| NEUR 280                               | Fundamental Neuroscience                                             | 3            |
| NEUR 281                               | Fundamentals of Neuroscience II:<br>Cognition                        | 3            |
| <b>Electives</b>                       |                                                                      |              |
| Complete 3 of the following courses:   |                                                                      | 9-11         |
| BIOH 365                               | Human Anatomy and Physiology for Health<br>Professions I             |              |
| NEUR 380                               | Molecular Neuroscience                                               |              |
| NEUR 441                               | CNS Diseases                                                         |              |
| NEUR 458                               | Neuroscience Research Techniques Lab                                 |              |
| PSYX 352                               | Comparative Psychology                                               |              |
| PSYX 356                               | Human Neuropsychology                                                |              |
| <b>Total Hours</b>                     |                                                                      | <b>19-21</b> |

## Chemistry & Biochemistry

### Chemistry

Chemistry is the central science that involves the study of molecules, their structures, their combinations, their interactions, and the energy changes accompanying chemical processes.

The Department offers the following degrees: B.S., B.A., M.S., M.A., and Ph.D.

Prospective students desiring further information on programs in the Department of Chemistry and Biochemistry should visit the websites of the Department of Chemistry and Biochemistry (<http://hs.UMT.edu/chemistry/default.php>) and the Biochemistry Program (<http://hs.UMT.edu/biochemistry/>).

**High School Preparation:** In addition to the general University admission requirements, it is strongly recommended that a student take four years of mathematics, four (or more) years of science (earth and space science, biology, chemistry, and physics), four years of a modern or classical language, and four years of English.

## Biochemistry

The Biochemistry Program is a joint program between the Department of Chemistry and Biochemistry and the Division of Biological & Biomedical Sciences. Biochemistry is an interdisciplinary science that integrates chemistry and biology to understand the molecular basis of life. The Biochemistry Program is accredited by the American Society for Biochemistry and Molecular Biology (ASBMB).

Undergraduate majors receive a solid foundation in both chemistry and biology. Biochemistry courses are usually taken in the junior year allowing majors to become involved in research with faculty and to take electives in their senior year. The major also introduces students to computer science, an essential tool in modern biochemistry. The B.S. in Biochemistry prepares students for advanced degrees in biochemistry or biophysics, for medical, dental or veterinary schools and for careers in the pharmaceutical and biotechnology industries. A Health Professions concentration is also offered within the B.S. in Biochemistry for students whose career goals are in fields related to biochemistry, particularly medical school. This option is designed so that students can complete all coursework necessary for the MCAT and other exams required for health-related professional schools by the end of their third year. Students desiring a basic grounding in biochemistry to complement their primary major can choose to pursue a minor in Biochemistry. All students completing a major or minor in Biochemistry are eligible to take the ASBMB certification exam in their junior or senior year.

Prospective students desiring further information on these degrees should contact the Program Director by visiting the Biochemistry Program web site (<http://hs.UMT.edu/biochemistry/>).

**High School Preparation:** In addition to the general University admission requirements, it is strongly recommended that a student take four years of mathematics, four years of science, and a language.

- Biochemistry B.S. (p. 340)
- Biochemistry B.S. - Health Professions (p. 342)
- Biochemistry Minor (p. 344)
- Brewing Science C.A.S. (p. 344)
- Brewing Science C.T.S. (p. 345)
- Chemical Pharmacology Certificate (p. 345)
- Chemistry B.S. (p. 345)
- Chemistry B.S. - Forensic Chemistry (p. 347)
- Chemistry Education Minor (p. 348)
- Chemistry Minor (p. 349)

## Biochemistry B.S.

The Biochemistry Program is a joint program between the Department of Chemistry and Biochemistry and the Division of Biological & Biomedical Sciences. Biochemistry is an interdisciplinary science that integrates chemistry and biology to understand the molecular basis of life. The Biochemistry Program is accredited by the American Society for Biochemistry and Molecular Biology (ASBMB).



Undergraduate majors receive a solid foundation in both chemistry and biology. Biochemistry courses are usually taken in the junior year allowing majors to become involved in research with faculty and to take electives in their senior year. The major also introduces students to computer science, an essential tool in modern biochemistry. The B.S. in Biochemistry prepares students for advanced degrees in biochemistry or biophysics, for medical, dental or veterinary schools and for careers in the pharmaceutical and biotechnology industries.

## General Degree Requirements

To earn a baccalaureate degree, all students must complete successfully, in addition to any other requirements, the University of Montana General Education Requirements. Please refer to the General Education Requirements page (p. 39) for more information.

Additional requirements for graduation can be found on the Degree/Certificate Requirements for Graduation page (p. 36).

Unless otherwise noted in individual program requirements, a minimum grade point average of 2.00 in all work attempted at the University of Montana-Missoula is required for graduation. Please see the Academic Policies and Procedures page (p. 25) for information on how your GPA is calculated.

Courses taken to satisfy the requirements of a major, minor, or certificate program must be completed with a grade of C- or better unless a higher grade is noted in the program requirements.

## Bachelor of Science - Biochemistry Course Requirements

| Code                                   | Title                                    | Hours |
|----------------------------------------|------------------------------------------|-------|
| <b>Lower-Division Core</b>             |                                          |       |
| Complete all of the following courses: |                                          |       |
| BCH 294                                | Seminar/Workshop                         | 1     |
| BIOB 160                               | Principles of Living Systems             | 3     |
| BIOB 161N                              | Principles of Living Systems Lab         | 1     |
| BIOB 260                               | Cellular and Molecular Biology           | 4     |
| BIOB 272                               | Genetics and Evolution                   | 4     |
| CHMY 141N                              | College Chemistry I                      | 4     |
| CHMY 142N                              | College Chemistry I Lab                  | 1     |
| CHMY 143N                              | College Chemistry II                     | 4     |
| CHMY 144N                              | College Chemistry II Lab                 | 1     |
| CHMY 221                               | Organic Chemistry I                      | 3     |
| CHMY 222                               | Organic Chemistry I Lab                  | 2     |
| CHMY 223                               | Organic Chemistry II                     | 3     |
| CHMY 224                               | Organic Chemistry II Lab                 | 2     |
| CSCI 150                               | Introduction to Computer Science         | 3     |
| M 171                                  | Calculus I                               | 4     |
| M 172                                  | Calculus II                              | 4     |
| PHSX 215N                              | Fundamentals of Physics with Calculus I  | 4     |
| PHSX 216N                              | Physics Laboratory I with Calculus       | 1     |
| PHSX 217N                              | Fundamentals of Physics with Calculus II | 4     |
| PHSX 218N                              | Physics Laboratory II with Calculus      | 1     |
| <b>Upper-Division Core</b>             |                                          |       |
| Complete all of the following courses: |                                          |       |
| BCH 480                                | Advanced Biochemistry I                  | 3     |

|                                                                                                                                                                |                                                           |           |
|----------------------------------------------------------------------------------------------------------------------------------------------------------------|-----------------------------------------------------------|-----------|
| BCH 482                                                                                                                                                        | Advanced Biochemistry II                                  | 3         |
| BCH 486                                                                                                                                                        | Biochemistry Research Lab                                 | 3         |
| CHMY 311                                                                                                                                                       | Analytical Chemistry-Quantitative Analysis                | 4         |
| CHMY 373                                                                                                                                                       | Physical Chemistry-Kinetics & Thermodynamics <sup>1</sup> | 4         |
| CHMY 421                                                                                                                                                       | Advanced Instrument Analysis                              | 4         |
| CHMY 401                                                                                                                                                       | Advanced Inorganic Chemistry                              | 3         |
| <b>Advanced Electives<sup>2</sup></b>                                                                                                                          |                                                           |           |
| Complete 15 credits from the following courses:                                                                                                                |                                                           | 15        |
| BCH 490                                                                                                                                                        | Undergraduate Research                                    |           |
| BIOB 301                                                                                                                                                       | Developmental Biology                                     |           |
| BIOB 375                                                                                                                                                       | General Genetics                                          |           |
| BIOB 410                                                                                                                                                       | Immunology                                                |           |
| BIOB 411                                                                                                                                                       | Immunology Laboratory                                     |           |
| BIOB 425                                                                                                                                                       | Advanced Cellular & Molecular Biology                     |           |
| BIOB 486                                                                                                                                                       | Genomics                                                  |           |
| BIOB 490                                                                                                                                                       | Advanced Undergraduate Research                           |           |
| BIOH 365                                                                                                                                                       | Human Anatomy and Physiology for Health Professions I     |           |
| BIOH 370                                                                                                                                                       | Human Anatomy and Physiology for Health Professions II    |           |
| BIOH 405                                                                                                                                                       | Hematology                                                |           |
| BIOH 462                                                                                                                                                       | Principles of Medical Physiology                          |           |
| BIOM 360                                                                                                                                                       | General Microbiology                                      |           |
| BIOM 361                                                                                                                                                       | General Microbiology Lab                                  |           |
| BIOM 410                                                                                                                                                       | Microbial Genetics                                        |           |
| BIOM 411                                                                                                                                                       | Experimental Microbial Genetics Lab                       |           |
| BIOM 427                                                                                                                                                       | General Parasitology                                      |           |
| BIOM 428                                                                                                                                                       | General Parasitology Lab                                  |           |
| BIOM 435                                                                                                                                                       | Virology                                                  |           |
| CHMY 371                                                                                                                                                       | Physical Chemistry-Quantum Chemistry & Spectroscopy       |           |
| CHMY 397                                                                                                                                                       | Teaching Chemistry                                        |           |
| CHMY 402                                                                                                                                                       | Advanced Inorganic Chemistry Lab                          |           |
| CHMY 442                                                                                                                                                       | Aquatic Chemistry                                         |           |
| CHMY 465                                                                                                                                                       | Organic Spectroscopy                                      |           |
| CHMY 466                                                                                                                                                       | FT-NMR Option for Undergraduate Research                  |           |
| CHMY 485                                                                                                                                                       | Laboratory Safety                                         |           |
| CHMY 490                                                                                                                                                       | Undergraduate Research                                    |           |
| CHMY 494                                                                                                                                                       | Seminar/Workshop                                          |           |
| CHMY 498                                                                                                                                                       | Internship/Cooperative Education                          |           |
| CSCI 451                                                                                                                                                       | Computational Biology                                     |           |
| PHAR 421                                                                                                                                                       | Medicinal Chemistry I                                     |           |
| PHAR 422                                                                                                                                                       | Medicinal Chemistry II                                    |           |
| <b>Writing in the Disciplines Requirement</b>                                                                                                                  |                                                           |           |
| To complete the Writing in the Disciplines Requirement, Biochemistry students may take the following courses or any other stand-alone advanced writing course. |                                                           |           |
| BCH 482 & BCH 486                                                                                                                                              | Advanced Biochemistry II and Biochemistry Research Lab    |           |
| <b>Total Hours</b>                                                                                                                                             |                                                           | <b>93</b> |

- <sup>1</sup> Students planning to attend graduate school in biochemistry or biophysics are strongly advised to take the CHMY 373-CHMY 371 sequence.
- <sup>2</sup> No more than 3 credits combined of BIOB 490, CHMY 490, CHMY 498 and BCH 490. No more than 3 credits combined of CHMY 397 and CHMY 494.

Four Year Plan

| Course                        | Title                                                                            | Hours     |
|-------------------------------|----------------------------------------------------------------------------------|-----------|
| <b>Freshman</b>               |                                                                                  |           |
| <b>Autumn</b>                 |                                                                                  |           |
| CHMY 141N & CHMY 142N         | College Chemistry I and College Chemistry I Lab                                  | 5         |
| M 171                         | Calculus I                                                                       | 4         |
| BIOB 160 & BIOB 161N          | Principles of Living Systems and Principles of Living Systems Lab                | 4         |
| WRIT 101                      | College Writing I                                                                | 4         |
| <b>Hours</b>                  |                                                                                  | <b>17</b> |
| <b>Spring</b>                 |                                                                                  |           |
| CHMY 143N & CHMY 144N         | College Chemistry II and College Chemistry II Lab                                | 5         |
| M 172                         | Calculus II                                                                      | 4         |
| CSCI 150                      | Introduction to Computer Science                                                 | 3         |
| HMED 140                      | Introduction to Health Professions                                               | 2         |
| General Education Requirement |                                                                                  | 3         |
| <b>Hours</b>                  |                                                                                  | <b>17</b> |
| <b>Sophomore</b>              |                                                                                  |           |
| <b>Autumn</b>                 |                                                                                  |           |
| CHMY 221 & CHMY 222           | Organic Chemistry I and Organic Chemistry I Lab                                  | 5         |
| PHSX 215N & PHSX 216N         | Fundamentals of Physics with Calculus I and Physics Laboratory I with Calculus   | 5         |
| BIOB 260                      | Cellular and Molecular Biology                                                   | 4         |
| Intermediate Writing Course   |                                                                                  | 3         |
| <b>Hours</b>                  |                                                                                  | <b>17</b> |
| <b>Spring</b>                 |                                                                                  |           |
| CHMY 223 & CHMY 224           | Organic Chemistry II and Organic Chemistry II Lab                                | 5         |
| PHSX 217N & PHSX 218N         | Fundamentals of Physics with Calculus II and Physics Laboratory II with Calculus | 5         |
| BIOB 272                      | Genetics and Evolution                                                           | 4         |
| <b>Hours</b>                  |                                                                                  | <b>14</b> |
| <b>Junior</b>                 |                                                                                  |           |
| <b>Autumn</b>                 |                                                                                  |           |
| BCH 480                       | Advanced Biochemistry I                                                          | 3         |
| CHMY 311                      | Analytical Chemistry-Quantitative Analysis                                       | 4         |
| General Education Requirement |                                                                                  | 9         |
| <b>Hours</b>                  |                                                                                  | <b>16</b> |
| <b>Spring</b>                 |                                                                                  |           |
| BCH 482                       | Advanced Biochemistry II                                                         | 3         |
| BCH 486                       | Biochemistry Research Lab                                                        | 3         |
| CHMY 421                      | Advanced Instrument Analysis                                                     | 4         |
| General Education Requirement |                                                                                  | 6         |
| <b>Hours</b>                  |                                                                                  | <b>16</b> |
| <b>Senior</b>                 |                                                                                  |           |
| <b>Autumn</b>                 |                                                                                  |           |
| CHMY 311                      | Analytical Chemistry-Quantitative Analysis                                       | 4         |
| CHMY 373                      | Physical Chemistry-Kinetics & Thermodynamics                                     | 4         |
| Upper Division BCH Electives  |                                                                                  | 6         |
| <b>Hours</b>                  |                                                                                  | <b>14</b> |

|                              |                                       |            |
|------------------------------|---------------------------------------|------------|
| <b>Spring</b>                |                                       |            |
| CHMY 421                     | Advanced Instrument Analysis          | 4          |
| BIOB 425                     | Advanced Cellular & Molecular Biology | 3          |
| Upper Division BCH Electives |                                       | 6          |
| <b>Hours</b>                 |                                       | <b>13</b>  |
| <b>Total Hours</b>           |                                       | <b>124</b> |

Last updated Autumn 2024

Biochemistry B.S. - Health Professions

The Biochemistry Program is a joint program between the Department of Chemistry and Biochemistry and the Division of Biological & Biomedical Sciences. Biochemistry is an interdisciplinary science that integrates chemistry and biology to understand the molecular basis of life. The Biochemistry Program is accredited by the American Society for Biochemistry and Molecular Biology (ASBMB).

The Health Professions concentration offered within the B.S. in Biochemistry is for students whose career goals are in fields related to biochemistry, particularly medical school. This concentration is designed so that students can complete all coursework necessary for the MCAT and other exams required for health-related professional schools by the end of their third year.

General Degree Requirements

To earn a baccalaureate degree, all students must complete successfully, in addition to any other requirements, the University of Montana General Education Requirements. Please refer to the General Education Requirements page (p. 39) for more information.

Additional requirements for graduation can be found on the Degree/Certificate Requirements for Graduation page (p. 36).

Unless otherwise noted in individual program requirements, a minimum grade point average of 2.00 in all work attempted at the University of Montana-Missoula is required for graduation. Please see the Academic Policies and Procedures page (p. 25) for information on how your GPA is calculated.

Courses taken to satisfy the requirements of a major, minor, or certificate program must be completed with a grade of C- or better unless a higher grade is noted in the program requirements.

Bachelor of Science - Biochemistry; Health Professions Concentration Course Requirements

| Code                                   | Title                            | Hours |
|----------------------------------------|----------------------------------|-------|
| <b>Lower-Division Core</b>             |                                  |       |
| Complete all of the following courses: |                                  |       |
| BCH 294                                | Seminar/Workshop                 | 1     |
| BIOB 160                               | Principles of Living Systems     | 3     |
| BIOB 161N                              | Principles of Living Systems Lab | 1     |
| BIOB 260                               | Cellular and Molecular Biology   | 4     |
| BIOB 272                               | Genetics and Evolution           | 4     |
| CHMY 141N                              | College Chemistry I              | 4     |
| CHMY 142N                              | College Chemistry I Lab          | 1     |

|           |                                          |   |
|-----------|------------------------------------------|---|
| CHMY 143N | College Chemistry II                     | 4 |
| CHMY 144N | College Chemistry II Lab                 | 1 |
| CHMY 221  | Organic Chemistry I                      | 3 |
| CHMY 222  | Organic Chemistry I Lab                  | 2 |
| CHMY 223  | Organic Chemistry II                     | 3 |
| CHMY 224  | Organic Chemistry II Lab                 | 2 |
| CSCI 150  | Introduction to Computer Science         | 3 |
| M 171     | Calculus I                               | 4 |
| M 172     | Calculus II                              | 4 |
| PHSX 215N | Fundamentals of Physics with Calculus I  | 4 |
| PHSX 216N | Physics Laboratory I with Calculus       | 1 |
| PHSX 217N | Fundamentals of Physics with Calculus II | 4 |
| PHSX 218N | Physics Laboratory II with Calculus      | 1 |

**Upper-Division Core**

Complete all of the following courses:

|          |                                                                   |   |
|----------|-------------------------------------------------------------------|---|
| BCH 480  | Advanced Biochemistry I                                           | 3 |
| BCH 482  | Advanced Biochemistry II                                          | 3 |
| BCH 486  | Biochemistry Research Lab                                         | 3 |
| BIOH 365 | Human Anatomy and Physiology for Health Professions I             | 3 |
| BIOH 366 | Human Anatomy and Physiology for Health Professions I Laboratory  | 1 |
| BIOH 370 | Human Anatomy and Physiology for Health Professions II            | 3 |
| BIOH 371 | Human Anatomy and Physiology for Health Professions II Laboratory | 1 |
| BIOM 360 | General Microbiology                                              | 3 |
| BIOM 361 | General Microbiology Lab                                          | 2 |
| CHMY 311 | Analytical Chemistry-Quantitative Analysis                        | 4 |
| CHMY 421 | Advanced Instrument Analysis                                      | 4 |

**Advanced Electives<sup>2</sup>**

Complete 7 credits from the following courses:

|          |                                                     |   |
|----------|-----------------------------------------------------|---|
| BCH 490  | Undergraduate Research                              | 7 |
| BIOB 301 | Developmental Biology                               |   |
| BIOB 375 | General Genetics                                    |   |
| BIOB 410 | Immunology                                          |   |
| BIOB 411 | Immunology Laboratory                               |   |
| BIOB 425 | Advanced Cellular & Molecular Biology               |   |
| BIOB 486 | Genomics                                            |   |
| BIOB 490 | Advanced Undergraduate Research                     |   |
| BIOH 405 | Hematology                                          |   |
| BIOH 462 | Principles of Medical Physiology                    |   |
| BIOM 410 | Microbial Genetics                                  |   |
| BIOM 411 | Experimental Microbial Genetics Lab                 |   |
| BIOM 427 | General Parasitology                                |   |
| BIOM 428 | General Parasitology Lab                            |   |
| BIOM 435 | Virology                                            |   |
| CHMY 371 | Physical Chemistry-Quantum Chemistry & Spectroscopy |   |
| CHMY 373 | Physical Chemistry-Kinetics & Thermodynamics        |   |
| CHMY 397 | Teaching Chemistry                                  |   |
| CHMY 401 | Advanced Inorganic Chemistry                        |   |

|          |                                          |  |
|----------|------------------------------------------|--|
| CHMY 402 | Advanced Inorganic Chemistry Lab         |  |
| CHMY 442 | Aquatic Chemistry                        |  |
| CHMY 465 | Organic Spectroscopy                     |  |
| CHMY 466 | FT-NMR Option for Undergraduate Research |  |
| CHMY 490 | Undergraduate Research                   |  |
| CHMY 494 | Seminar/Workshop                         |  |
| CHMY 498 | Internship/Cooperative Education         |  |
| PHAR 421 | Medicinal Chemistry I                    |  |
| PHAR 422 | Medicinal Chemistry II                   |  |
| STAT 451 | Statistical Methods I                    |  |

**Social Science - Sociology and Psychology**

Complete all of the following courses:

|           |                           |   |
|-----------|---------------------------|---|
| PSYX 100S | Intro to Psychology       | 3 |
| SOCI 101S | Introduction to Sociology | 3 |

**Writing in the Disciplines Requirement**

To complete the Writing in the Disciplines Requirement, Biochemistry students may take the following courses or any other stand-alone advanced writing course.

|                   |                                                        |  |
|-------------------|--------------------------------------------------------|--|
| BCH 482 & BCH 486 | Advanced Biochemistry II and Biochemistry Research Lab |  |
|-------------------|--------------------------------------------------------|--|

**Total Hours** **97**

<sup>1</sup> Students planning to attend graduate school in biochemistry or biophysics are strongly advised to take the CHMY 373-CHMY 371 sequence.

<sup>2</sup> No more than 3 credits combined of BIOB 490, CHMY 490, CHMY 498 and BCH 490. No more than 3 credits combined of CHMY 397 and CHMY 494.

**Four Year Plan**

| Course                      | Title                                                                          | Hours     |
|-----------------------------|--------------------------------------------------------------------------------|-----------|
| <b>Freshman</b>             |                                                                                |           |
| <b>Autumn</b>               |                                                                                |           |
| CHMY 141N & CHMY 142N       | College Chemistry I and College Chemistry I Lab                                | 5         |
| M 171                       | Calculus I                                                                     | 4         |
| BIOB 160 & BIOB 161N        | Principles of Living Systems and Principles of Living Systems Lab              | 4         |
| WRIT 101                    | College Writing I                                                              | 4         |
| <b>Hours</b>                |                                                                                | <b>17</b> |
| <b>Spring</b>               |                                                                                |           |
| CHMY 143N & CHMY 144N       | College Chemistry II and College Chemistry II Lab                              | 5         |
| M 172                       | Calculus II                                                                    | 4         |
| PSYX 100S                   | Intro to Psychology                                                            | 3         |
| SOCI 101S                   | Introduction to Sociology                                                      | 3         |
| HMED 140                    | Introduction to Health Professions                                             | 2         |
| <b>Hours</b>                |                                                                                | <b>17</b> |
| <b>Sophomore</b>            |                                                                                |           |
| <b>Autumn</b>               |                                                                                |           |
| CHMY 221 & CHMY 222         | Organic Chemistry I and Organic Chemistry I Lab                                | 5         |
| PHSX 215N & PHSX 216N       | Fundamentals of Physics with Calculus I and Physics Laboratory I with Calculus | 5         |
| BIOB 260                    | Cellular and Molecular Biology                                                 | 4         |
| Intermediate Writing Course |                                                                                | 3         |
| <b>Hours</b>                |                                                                                | <b>17</b> |

|                               |                                                                                                                                       |            |
|-------------------------------|---------------------------------------------------------------------------------------------------------------------------------------|------------|
| <b>Spring</b>                 |                                                                                                                                       |            |
| CHMY 223<br>& CHMY 224        | Organic Chemistry II<br>and Organic Chemistry II Lab                                                                                  | 5          |
| PHSX 217N<br>& PHSX 218N      | Fundamentals of Physics with Calculus II<br>and Physics Laboratory II with Calculus                                                   | 5          |
| BIOB 272                      | Genetics and Evolution                                                                                                                | 4          |
| <b>Hours</b>                  |                                                                                                                                       | <b>14</b>  |
| <b>Junior</b>                 |                                                                                                                                       |            |
| <b>Autumn</b>                 |                                                                                                                                       |            |
| BCH 480                       | Advanced Biochemistry I                                                                                                               | 3          |
| CHMY 311                      | Analytical Chemistry-Quantitative Analysis                                                                                            | 4          |
| General Education Requirement |                                                                                                                                       | 9          |
| <b>Hours</b>                  |                                                                                                                                       | <b>16</b>  |
| <b>Spring</b>                 |                                                                                                                                       |            |
| BCH 482                       | Advanced Biochemistry II                                                                                                              | 3          |
| BCH 486                       | Biochemistry Research Lab                                                                                                             | 3          |
| CHMY 421                      | Advanced Instrument Analysis                                                                                                          | 4          |
| General Education Requirement |                                                                                                                                       | 6          |
| <b>Hours</b>                  |                                                                                                                                       | <b>16</b>  |
| <b>Senior</b>                 |                                                                                                                                       |            |
| <b>Autumn</b>                 |                                                                                                                                       |            |
| BIOH 365<br>& BIOH 366        | Human Anatomy and Physiology for Health<br>Professions I<br>and Human Anatomy and Physiology for Health<br>Professions I Laboratory   | 4          |
| BIOM 360                      | General Microbiology                                                                                                                  | 3          |
| Upper Division BCH Elective   |                                                                                                                                       | 3          |
| General Education Requirement |                                                                                                                                       | 3          |
| <b>Hours</b>                  |                                                                                                                                       | <b>13</b>  |
| <b>Spring</b>                 |                                                                                                                                       |            |
| BIOH 370<br>& BIOH 371        | Human Anatomy and Physiology for Health<br>Professions II<br>and Human Anatomy and Physiology for Health<br>Professions II Laboratory | 4          |
| BIOB 425                      | Advanced Cellular & Molecular Biology                                                                                                 | 3          |
| Upper Division BCH Elective   |                                                                                                                                       | 4          |
| General Education Requirement |                                                                                                                                       | 3          |
| <b>Hours</b>                  |                                                                                                                                       | <b>14</b>  |
| <b>Total Hours</b>            |                                                                                                                                       | <b>124</b> |

Last updated Autumn 2024

## Biochemistry Minor

The Biochemistry Program is a joint program between the Department of Chemistry and Biochemistry and the Division of Biological & Biomedical Sciences. Biochemistry is an interdisciplinary science that integrates chemistry and biology to understand the molecular basis of life. The Biochemistry Program is accredited by the American Society for Biochemistry and Molecular Biology (ASBMB).

Students desiring a basic grounding in biochemistry to complement their primary major can choose to pursue the minor in Biochemistry. All students completing a major or minor in Biochemistry are eligible to take the ASBMB certification exam in their junior or senior year.

## General Degree Requirements

To earn a baccalaureate degree, all students must complete successfully, in addition to any other requirements, the University of Montana General Education Requirements. Please refer to the General Education Requirements page (p. 39) for more information.

Additional requirements for graduation can be found on the Degree/ Certificate Requirements for Graduation page (p. 36).

Unless otherwise noted in individual program requirements, a minimum grade point average of 2.00 in all work attempted at the University of Montana-Missoula is required for graduation. Please see the Academic Policies and Procedures page (p. 25) for information on how your GPA is calculated.

Courses taken to satisfy the requirements of a major, minor, or certificate program must be completed with a grade of C- or better unless a higher grade is noted in the program requirements.

## Minor - Biochemistry Course Requirements

| Code                                   | Title                                | Hours        |
|----------------------------------------|--------------------------------------|--------------|
| <b>Biology</b>                         |                                      |              |
| Complete all of the following courses: |                                      |              |
| BIOB 160                               | Principles of Living Systems         | 3            |
| BIOB 161N                              | Principles of Living Systems Lab     | 1            |
| <b>Chemistry</b>                       |                                      |              |
| Complete all of the following courses: |                                      |              |
| CHMY 141N                              | College Chemistry I                  | 4            |
| CHMY 142N                              | College Chemistry I Lab              | 1            |
| CHMY 143N                              | College Chemistry II                 | 4            |
| CHMY 144N                              | College Chemistry II Lab             | 1            |
| CHMY 221                               | Organic Chemistry I                  | 3            |
| CHMY 223                               | Organic Chemistry II                 | 3            |
| <b>Upper-Division Biochemistry</b>     |                                      |              |
| Complete all of the following courses: |                                      |              |
| BCH 480                                | Advanced Biochemistry I              | 3            |
| BCH 482                                | Advanced Biochemistry II             | 3            |
| BCH 486                                | Biochemistry Research Lab            | 3-4          |
| or NEUR 458                            | Neuroscience Research Techniques Lab |              |
| <b>Total Hours</b>                     |                                      | <b>29-30</b> |

## Brewing Science C.A.S.

This certificate in brewing science allow students to attain and demonstrate a general knowledge of the science and practice of malting and brewing, a greater appreciation of the science and manufacturing processes of beer production, and technical competence in laboratory testing procedures related to brewing. Students who complete this certificate may seek employment in the malting, brewing or distilling industry.

## General Certificate Requirements

Additional requirements for graduation can be found on the Degree/ Certificate Requirements for Graduation page (p. 36).

Unless otherwise noted in individual program requirements, a minimum grade point average of 2.00 in all work attempted at the University of Montana-Missoula is required for graduation. Please see the Academic

Policies and Procedures page (p. 25) for information on how your GPA is calculated.

Courses taken to satisfy the requirements of a major, minor, or certificate program must be completed with a grade of C- or better unless a higher grade is noted in the program requirements.

## Certificate of Applied Science - Brewing Science

### Course Requirements

| Code                                               | Title                                             | Hours     |
|----------------------------------------------------|---------------------------------------------------|-----------|
| <b>Chemistry</b>                                   |                                                   |           |
| Complete one of the following Chemistry sequences: |                                                   | 10        |
| CHMY 121N                                          | Introduction to General Chemistry                 |           |
| CHMY 123                                           | Introduction to Organic and Biochemistry          |           |
| CHMY 124                                           | Introduction to Organic and Biochemistry Lab      |           |
| OR                                                 |                                                   |           |
| CHMY 141N & CHMY 142N                              | College Chemistry I and College Chemistry I Lab   |           |
| CHMY 143N & CHMY 144N                              | College Chemistry II and College Chemistry II Lab |           |
| <b>Complete all of the following courses:</b>      |                                                   |           |
| BCH 380 or BCH 480                                 | Biochemistry / Advanced Biochemistry I            | 4         |
| BIOB 160                                           | Principles of Living Systems                      | 3         |
| BIOB 260                                           | Cellular and Molecular Biology                    | 4         |
| BIOM 360                                           | General Microbiology                              | 3         |
| BIOM 361                                           | General Microbiology Lab                          | 2         |
| CHMY 311                                           | Analytical Chemistry-Quantitative Analysis        | 4         |
| CHMY 314                                           | Brewing Science                                   | 3         |
| <b>Total Hours</b>                                 |                                                   | <b>33</b> |

## Brewing Science C.T.S.

### General Certificate Requirements

Additional requirements for graduation can be found on the Degree/Certificate Requirements for Graduation page (p. 36).

Unless otherwise noted in individual program requirements, a minimum grade point average of 2.00 in all work attempted at the University of Montana-Missoula is required for graduation. Please see the Academic Policies and Procedures page (p. 25) for information on how your GPA is calculated.

Courses taken to satisfy the requirements of a major, minor, or certificate program must be completed with a grade of C- or better unless a higher grade is noted in the program requirements.

## Certificate of Technical Studies - Brewing Science

### Course Requirements

| Code                                          | Title                                        | Hours     |
|-----------------------------------------------|----------------------------------------------|-----------|
| <b>Complete all of the following courses:</b> |                                              |           |
| BIOB 160                                      | Principles of Living Systems                 | 3         |
| CHMY 121N                                     | Introduction to General Chemistry            | 4         |
| CHMY 123                                      | Introduction to Organic and Biochemistry     | 4         |
| CHMY 124                                      | Introduction to Organic and Biochemistry Lab | 2         |
| CHMY 313                                      | Introduction to Brewing Science              | 1         |
| CHMY 314                                      | Brewing Science                              | 3         |
| <b>Total Hours</b>                            |                                              | <b>17</b> |

## Chemical Pharmacology Certificate

### General Certificate Requirements

Additional requirements for graduation can be found on the Degree/Certificate Requirements for Graduation page (p. 36).

Unless otherwise noted in individual program requirements, a minimum grade point average of 2.00 in all work attempted at the University of Montana-Missoula is required for graduation. Please see the Academic Policies and Procedures page (p. 25) for information on how your GPA is calculated.

Courses taken to satisfy the requirements of a major, minor, or certificate program must be completed with a grade of C- or better unless a higher grade is noted in the program requirements.

## Post-Secondary Certificate - Chemical Pharmacology

### Course Requirements

| Code                                          | Title                        | Hours     |
|-----------------------------------------------|------------------------------|-----------|
| <b>Complete all of the following courses:</b> |                              |           |
| PHAR 421                                      | Medicinal Chemistry I        | 3         |
| PHAR 422                                      | Medicinal Chemistry II       | 3         |
| PHAR 443                                      | Pharmacology & Toxicology I  | 4         |
| PHAR 444                                      | Pharmacology & Toxicology II | 4         |
| <b>Complete two of the following courses:</b> |                              | <b>6</b>  |
| CHMY 411                                      | Advanced Organic Chemistry   |           |
| CHMY 420                                      | Chemoinformatics             |           |
| CHMY 465                                      | Organic Spectroscopy         |           |
| <b>Total Hours</b>                            |                              | <b>20</b> |

## Chemistry B.S.

(American Chemical Society Certified)

The courses required for the B.S. degree provide a solid education in chemistry for the professional chemist and in preparation for graduate work in most areas of chemistry. These requirements meet the latest certification standards of the American Chemical Society.



## General Degree Requirements

To earn a baccalaureate degree, all students must complete successfully, in addition to any other requirements, the University of Montana General Education Requirements. Please refer to the General Education Requirements page (p. 39) for more information.

Additional requirements for graduation can be found on the Degree/Certificate Requirements for Graduation page (p. 36).

Unless otherwise noted in individual program requirements, a minimum grade point average of 2.00 in all work attempted at the University of Montana-Missoula is required for graduation. Please see the Academic Policies and Procedures page (p. 25) for information on how your GPA is calculated.

Courses taken to satisfy the requirements of a major, minor, or certificate program must be completed with a grade of C- or better unless a higher grade is noted in the program requirements.

## Bachelor of Science - Chemistry Course Requirements

| Code                                          | Title                                               | Hours |
|-----------------------------------------------|-----------------------------------------------------|-------|
| <b>Lower-Division Core Courses</b>            |                                                     |       |
| Complete all of the following courses:        |                                                     |       |
| CHMY 141N                                     | College Chemistry I                                 | 4     |
| CHMY 142N                                     | College Chemistry I Lab                             | 1     |
| CHMY 143N                                     | College Chemistry II                                | 4     |
| CHMY 144N                                     | College Chemistry II Lab                            | 1     |
| CHMY 221                                      | Organic Chemistry I                                 | 3     |
| CHMY 222                                      | Organic Chemistry I Lab                             | 2     |
| CHMY 223                                      | Organic Chemistry II                                | 3     |
| CHMY 224                                      | Organic Chemistry II Lab                            | 2     |
| CSCI 150                                      | Introduction to Computer Science                    | 3     |
| M 171                                         | Calculus I                                          | 4     |
| M 172                                         | Calculus II                                         | 4     |
| PHSX 215N                                     | Fundamentals of Physics with Calculus I             | 4     |
| PHSX 216N                                     | Physics Laboratory I with Calculus                  | 1     |
| PHSX 217N                                     | Fundamentals of Physics with Calculus II            | 4     |
| PHSX 218N                                     | Physics Laboratory II with Calculus                 | 1     |
| <b>Upper-Division Core Courses</b>            |                                                     |       |
| Complete all of the following courses:        |                                                     |       |
| BCH 480                                       | Advanced Biochemistry I                             | 3     |
| BCH 482                                       | Advanced Biochemistry II                            | 3     |
| BCH 486                                       | Biochemistry Research Lab                           | 3     |
| CHMY 311                                      | Analytical Chemistry-Quantitative Analysis          | 4     |
| CHMY 373                                      | Physical Chemistry-Kinetics & Thermodynamics        | 4     |
| CHMY 401                                      | Advanced Inorganic Chemistry                        | 3     |
| CHMY 402                                      | Advanced Inorganic Chemistry Lab                    | 2     |
| CHMY 421                                      | Advanced Instrument Analysis                        | 4     |
| <b>Advanced Electives</b> <sup>1</sup>        |                                                     |       |
| Complete 13 credits in the following courses: |                                                     | 13    |
| CHMY 371                                      | Physical Chemistry-Quantum Chemistry & Spectroscopy |       |
| CHMY 397                                      | Teaching Chemistry                                  |       |

|          |                                    |
|----------|------------------------------------|
| CHMY 411 | Advanced Organic Chemistry         |
| CHMY 420 | Chemoinformatics                   |
| CHMY 465 | Organic Spectroscopy               |
| CHMY 490 | Undergraduate Research             |
| CHMY 491 | Special Topics/Experimental Course |
| CHMY 492 | Independent Study                  |
| CHMY 494 | Seminar/Workshop                   |
| CHMY 497 | Teaching Laboratory Chemistry      |
| CHMY 498 | Internship/Cooperative Education   |
| CHMY 499 | Senior Thesis/capstone             |

### Writing in the Disciplines Requirement

To complete the Writing in the Disciplines Requirement, Chemistry students take BCH 482 and BCH 486 or any other stand-alone advanced writing course.

**Total Hours** **80**

<sup>1</sup> Other upper division classes in Chemistry, Computer Science, Physics, Geosciences, Biochemistry, Biology, or Mathematics (including graduate level courses offered for undergraduate credit) may be used to meet the advanced electives requirement with approval of the Chemistry advisor. A maximum of 9 credits of CHMY courses number 490-499 may be applied toward degree requirements.

## Four Year Plan

| Course                        | Title                                    | Hours     |
|-------------------------------|------------------------------------------|-----------|
| <b>Freshman</b>               |                                          |           |
| <b>Autumn</b>                 |                                          |           |
| CHMY 141N                     | College Chemistry I                      | 5         |
| & CHMY 142N                   | and College Chemistry I Lab              |           |
| BIOB 160                      | Principles of Living Systems             | 4         |
| & BIOB 161N                   | and Principles of Living Systems Lab     |           |
| CSCI 150                      | Introduction to Computer Science         | 3         |
| M 171                         | Calculus I                               | 4         |
| <b>Hours</b>                  |                                          | <b>16</b> |
| <b>Spring</b>                 |                                          |           |
| CHMY 143N                     | College Chemistry II                     | 5         |
| & CHMY 144N                   | and College Chemistry II Lab             |           |
| M 172                         | Calculus II                              | 4         |
| WRIT 101                      | College Writing I                        | 4         |
| General Education Requirement |                                          | 3         |
| <b>Hours</b>                  |                                          | <b>16</b> |
| <b>Sophomore</b>              |                                          |           |
| <b>Autumn</b>                 |                                          |           |
| CHMY 221                      | Organic Chemistry I                      | 5         |
| & CHMY 222                    | and Organic Chemistry I Lab              |           |
| PHSX 215N                     | Fundamentals of Physics with Calculus I  | 5         |
| & PHSX 216N                   | and Physics Laboratory I with Calculus   |           |
| M 273                         | Multivariable Calculus                   | 4         |
| <b>Hours</b>                  |                                          | <b>14</b> |
| <b>Spring</b>                 |                                          |           |
| CHMY 223                      | Organic Chemistry II                     | 5         |
| & CHMY 224                    | and Organic Chemistry II Lab             |           |
| PHSX 217N                     | Fundamentals of Physics with Calculus II | 5         |
| & PHSX 218N                   | and Physics Laboratory II with Calculus  |           |
| General Education Requirement |                                          | 3         |
| Intermediate Writing          |                                          | 3         |
| <b>Hours</b>                  |                                          | <b>16</b> |

|                               |                                                     |            |
|-------------------------------|-----------------------------------------------------|------------|
| <b>Junior</b>                 |                                                     |            |
| <b>Autumn</b>                 |                                                     |            |
| CHMY 311                      | Analytical Chemistry-Quantitative Analysis          | 4          |
| CHMY 373                      | Physical Chemistry-Kinetics & Thermodynamics        | 4          |
| M 274                         | Introduction to Differential Equations              | 4          |
| General Education Requirement |                                                     | 3          |
| <b>Hours</b>                  |                                                     | <b>15</b>  |
| <b>Spring</b>                 |                                                     |            |
| CHMY 421                      | Advanced Instrument Analysis                        | 4          |
| CHMY 371                      | Physical Chemistry-Quantum Chemistry & Spectroscopy | 4          |
| General Education Requirement |                                                     | 6          |
| <b>Hours</b>                  |                                                     | <b>14</b>  |
| <b>Senior</b>                 |                                                     |            |
| <b>Autumn</b>                 |                                                     |            |
| CHMY 401                      | Advanced Inorganic Chemistry                        | 3          |
| BCH 480                       | Advanced Biochemistry I                             | 3          |
| Advanced Elective             |                                                     | 6          |
| General Education Requirement |                                                     | 3          |
| <b>Hours</b>                  |                                                     | <b>15</b>  |
| <b>Spring</b>                 |                                                     |            |
| BCH 482                       | Advanced Biochemistry II                            | 3          |
| BCH 486                       | Biochemistry Research Lab                           | 3          |
| CHMY 402                      | Advanced Inorganic Chemistry Lab                    | 2          |
| Advanced Elective             |                                                     | 4          |
| General Education Requirement |                                                     | 3          |
| <b>Hours</b>                  |                                                     | <b>15</b>  |
| <b>Total Hours</b>            |                                                     | <b>121</b> |

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## Chemistry B.S. - Forensic Chemistry

### General Degree Requirements

To earn a baccalaureate degree, all students must complete successfully, in addition to any other requirements, the University of Montana General Education Requirements. Please refer to the General Education Requirements page (p. 39) for more information.

Additional requirements for graduation can be found on the Degree/Certificate Requirements for Graduation page (p. 36).

Unless otherwise noted in individual program requirements, a minimum grade point average of 2.00 in all work attempted at the University of Montana-Missoula is required for graduation. Please see the Academic Policies and Procedures page (p. 25) for information on how your GPA is calculated.

Courses taken to satisfy the requirements of a major, minor, or certificate program must be completed with a grade of C- or better unless a higher grade is noted in the program requirements.

## Bachelor of Science - Chemistry; Forensic Chemistry Concentration

### Course Requirements

| Code                                   | Title                        | Hours |
|----------------------------------------|------------------------------|-------|
| <b>Lower-Division Core Courses</b>     |                              |       |
| Complete all of the following courses: |                              |       |
| BIOB 160                               | Principles of Living Systems | 3     |

|           |                                          |   |
|-----------|------------------------------------------|---|
| BIOB 161N | Principles of Living Systems Lab         | 1 |
| BIOB 260  | Cellular and Molecular Biology           | 4 |
| CHMY 141N | College Chemistry I                      | 4 |
| CHMY 142N | College Chemistry I Lab                  | 1 |
| CHMY 143N | College Chemistry II                     | 4 |
| CHMY 144N | College Chemistry II Lab                 | 1 |
| CHMY 221  | Organic Chemistry I                      | 3 |
| CHMY 222  | Organic Chemistry I Lab                  | 2 |
| CHMY 223  | Organic Chemistry II                     | 3 |
| CHMY 224  | Organic Chemistry II Lab                 | 2 |
| CJUS 125N | Fundamentals of Forensic Science         | 3 |
| COMX 111A | Introduction to Public Speaking          | 3 |
| M 171     | Calculus I                               | 4 |
| M 172     | Calculus II                              | 4 |
| PHSX 215N | Fundamentals of Physics with Calculus I  | 4 |
| PHSX 216N | Physics Laboratory I with Calculus       | 1 |
| PHSX 217N | Fundamentals of Physics with Calculus II | 4 |
| PHSX 218N | Physics Laboratory II with Calculus      | 1 |
| SOCI 211S | Introduction to Criminology              | 3 |
| SOCI 221  | Criminal Justice System                  | 3 |

### Upper-Division Core Courses

Complete all of the following courses:

|             |                                              |   |
|-------------|----------------------------------------------|---|
| BCH 480     | Advanced Biochemistry I                      | 3 |
| BCH 482     | Advanced Biochemistry II                     | 3 |
| BCH 486     | Biochemistry Research Lab                    | 3 |
| CHMY 311    | Analytical Chemistry-Quantitative Analysis   | 4 |
| CHMY 373    | Physical Chemistry-Kinetics & Thermodynamics | 4 |
| CHMY 401    | Advanced Inorganic Chemistry                 | 3 |
| CHMY 421    | Advanced Instrument Analysis                 | 4 |
| CHMY 488    | Forensic Research                            | 3 |
| or CHMY 498 | Internship/Cooperative Education             |   |
| CHMY 489    | Forensic Research Seminar                    | 1 |
| STAT 451    | Statistical Methods I                        | 3 |
| STAT 457    | Computer Data Analysis I                     | 1 |

### Advanced Electives

|                                                |                                           |   |
|------------------------------------------------|-------------------------------------------|---|
| Complete 7 credits from the following courses: |                                           | 7 |
| CHMY 411                                       | Advanced Organic Chemistry                |   |
| CHMY 465                                       | Organic Spectroscopy                      |   |
| CHMY 466                                       | FT-NMR Option for Undergraduate Research  |   |
| CHMY 542                                       | Separation Science                        |   |
| CJUS 488                                       | Forensic Science the Crime Lab and Beyond |   |

### Writing in the Disciplines Requirement

To complete the Writing in the Disciplines Requirement, Chemistry students take BCH 482 and BCH 486 or any other stand-alone advanced writing course.

|                    |           |
|--------------------|-----------|
| <b>Total Hours</b> | <b>97</b> |
|--------------------|-----------|

Four Year Plan

| Course                        | Title                                                                               | Hours |
|-------------------------------|-------------------------------------------------------------------------------------|-------|
| <b>Freshman</b>               |                                                                                     |       |
| <b>Autumn</b>                 |                                                                                     |       |
| CHMY 141N<br>& CHMY 142N      | College Chemistry I<br>and College Chemistry I Lab                                  | 5     |
| BIOB 160<br>& BIOB 161N       | Principles of Living Systems<br>and Principles of Living Systems Lab                | 4     |
| M 171                         | Calculus I                                                                          | 4     |
| WRIT 101                      | College Writing I                                                                   | 4     |
| <b>Hours</b>                  |                                                                                     | 17    |
| <b>Spring</b>                 |                                                                                     |       |
| CHMY 143N<br>& CHMY 144N      | College Chemistry II<br>and College Chemistry II Lab                                | 5     |
| M 172                         | Calculus II                                                                         | 4     |
| COMX 111A                     | Introduction to Public Speaking                                                     | 3     |
| CJUS 125N                     | Fundamentals of Forensic Science                                                    | 3     |
| <b>Hours</b>                  |                                                                                     | 15    |
| <b>Sophomore</b>              |                                                                                     |       |
| <b>Autumn</b>                 |                                                                                     |       |
| CHMY 221<br>& CHMY 222        | Organic Chemistry I<br>and Organic Chemistry I Lab                                  | 5     |
| SOCI 211S                     | Introduction to Criminology                                                         | 3     |
| PHSX 215N<br>& PHSX 216N      | Fundamentals of Physics with Calculus I<br>and Physics Laboratory I with Calculus   | 5     |
| BIOB 260                      | Cellular and Molecular Biology                                                      | 4     |
| <b>Hours</b>                  |                                                                                     | 17    |
| <b>Spring</b>                 |                                                                                     |       |
| CHMY 223<br>& CHMY 224        | Organic Chemistry II<br>and Organic Chemistry II Lab                                | 5     |
| PHSX 217N<br>& PHSX 218N      | Fundamentals of Physics with Calculus II<br>and Physics Laboratory II with Calculus | 5     |
| SOCI 221                      | Criminal Justice System                                                             | 3     |
| General Education Requirement |                                                                                     | 3     |
| <b>Hours</b>                  |                                                                                     | 16    |
| <b>Junior</b>                 |                                                                                     |       |
| <b>Autumn</b>                 |                                                                                     |       |
| BCH 480                       | Advanced Biochemistry I                                                             | 3     |
| CHMY 311                      | Analytical Chemistry-Quantitative Analysis                                          | 4     |
| STAT 451                      | Statistical Methods I                                                               | 3     |
| General Education Requirement |                                                                                     | 3     |
| <b>Hours</b>                  |                                                                                     | 13    |
| <b>Spring</b>                 |                                                                                     |       |
| CHMY 421                      | Advanced Instrument Analysis                                                        | 4     |
| BCH 482                       | Advanced Biochemistry II                                                            | 3     |
| BCH 486                       | Biochemistry Research Lab                                                           | 3     |
| STAT 457                      | Computer Data Analysis I                                                            | 1     |
| Advanced Elective             |                                                                                     | 3     |
| <b>Hours</b>                  |                                                                                     | 14    |
| <b>Senior</b>                 |                                                                                     |       |
| <b>Autumn</b>                 |                                                                                     |       |
| CHMY 401                      | Advanced Inorganic Chemistry                                                        | 3     |
| CHMY 373                      | Physical Chemistry-Kinetics & Thermodynamics                                        | 4     |
| CHMY 489                      | Forensic Research Seminar                                                           | 1     |
| Advanced Elective             |                                                                                     | 6     |
| General Education Requirement |                                                                                     | 3     |
| <b>Hours</b>                  |                                                                                     | 17    |
| <b>Spring</b>                 |                                                                                     |       |
| CHMY 488                      | Forensic Research                                                                   | 3     |
| Advanced Elective             |                                                                                     | 6     |

|                               |            |
|-------------------------------|------------|
| General Education Requirement | 6          |
| <b>Hours</b>                  | <b>15</b>  |
| <b>Total Hours</b>            | <b>124</b> |

Last updated Autumn 2024

Chemistry Education Minor

- This minor contains course requirements designed to meet state standards. Those interested in teaching in K-12 schools must complete the education/teaching concentration of a major in a teaching content area plus the Teacher Education Program through the Department of Teaching and Learning. Additional teaching areas can be added through completion of the education/teaching concentration of a major or education/teaching minor in that content area.
  - Secondary Education Licensure Program (<https://www.umt.edu/education/departments/teaching-and-learning/tep/default.php>)
  - Licensure Degree Requirements (p. 151)
- To complete this minor, you need to contact the Teaching and Learning Department. Approvals for this track must come from the Teaching and Learning Department.

General Degree Requirements

To earn a baccalaureate degree, all students must complete successfully, in addition to any other requirements, the University of Montana General Education Requirements. Please refer to the General Education Requirements page (p. 39) for more information.

Additional requirements for graduation can be found on the Degree/ Certificate Requirements for Graduation page (p. 36).

Unless otherwise noted in individual program requirements, a minimum grade point average of 2.00 in all work attempted at the University of Montana-Missoula is required for graduation. Please see the Academic Policies and Procedures page (p. 25) for information on how your GPA is calculated.

Courses taken to satisfy the requirements of a major, minor, or certificate program must be completed with a grade of C- or better unless a higher grade is noted in the program requirements.

Minor - Chemistry Education Course Requirements

| Code                                   | Title                                                | Hours |
|----------------------------------------|------------------------------------------------------|-------|
| <b>Lower-Division Core Courses</b>     |                                                      |       |
| Complete all of the following courses: |                                                      |       |
| CHMY 141N<br>& CHMY 142N               | College Chemistry I<br>and College Chemistry I Lab   | 5     |
| CHMY 143N<br>& CHMY 144N               | College Chemistry II<br>and College Chemistry II Lab | 5     |
| CHMY 221                               | Organic Chemistry I                                  | 3     |
| CHMY 222                               | Organic Chemistry I Lab                              | 2     |
| CHMY 223                               | Organic Chemistry II                                 | 3     |
| <b>Upper-Division Core Courses</b>     |                                                      |       |
| Complete all of the following courses: |                                                      |       |
| CHMY 311                               | Analytical Chemistry-Quantitative Analysis           | 4     |

|                                           |                                              |           |
|-------------------------------------------|----------------------------------------------|-----------|
| CHMY 373                                  | Physical Chemistry-Kinetics & Thermodynamics | 4         |
| CHMY 485                                  | Laboratory Safety                            | 1         |
| BCH 380                                   | Biochemistry                                 | 4         |
| or BCH 480                                | Advanced Biochemistry I                      |           |
| <b>Required Courses Outside the Minor</b> |                                              |           |
| Complete all of the following courses:    |                                              |           |
| CSCI 150                                  | Introduction to Computer Science             | 3         |
| EDU 497                                   | Teaching and Assessing                       | 3         |
| ENST 472                                  | General Science: Conservation Education      | 3         |
| M 162                                     | Applied Calculus                             | 4         |
| or M 171                                  | Calculus I                                   |           |
| PHSX 205N                                 | College Physics I                            | 4         |
| PHSX 206N                                 | College Physics I Laboratory                 | 1         |
| PHSX 207N                                 | College Physics II                           | 4         |
| PHSX 208N                                 | College Physics II Laboratory                | 1         |
| STAT 216                                  | Introduction to Statistics                   | 4         |
| <b>Total Hours</b>                        |                                              | <b>58</b> |

## Secondary Teaching Licensure

For endorsement to teach this subject, a student also must gain admission to the Teacher Education Program and meet all the requirements for secondary teaching licensure (p. 151). For more information, see the Teaching and Learning Department webpage (<https://www.umt.edu/education/departments/currinst/default.php>).

## Chemistry Minor

### General Degree Requirements

To earn a baccalaureate degree, all students must complete successfully, in addition to any other requirements, the University of Montana General Education Requirements. Please refer to the General Education Requirements page (p. 39) for more information.

Additional requirements for graduation can be found on the Degree/Certificate Requirements for Graduation page (p. 36).

Unless otherwise noted in individual program requirements, a minimum grade point average of 2.00 in all work attempted at the University of Montana-Missoula is required for graduation. Please see the Academic Policies and Procedures page (p. 25) for information on how your GPA is calculated.

Courses taken to satisfy the requirements of a major, minor, or certificate program must be completed with a grade of C- or better unless a higher grade is noted in the program requirements.

## Minor - Chemistry

### Course Requirements

| Code                                   | Title                                             | Hours |
|----------------------------------------|---------------------------------------------------|-------|
| <b>Lower-Division Core Courses</b>     |                                                   |       |
| Complete all of the following courses: |                                                   |       |
| CHMY 141N & CHMY 142N                  | College Chemistry I and College Chemistry I Lab   | 5     |
| CHMY 143N & CHMY 144N                  | College Chemistry II and College Chemistry II Lab | 5     |

|                                              |                                                     |              |
|----------------------------------------------|-----------------------------------------------------|--------------|
| CHMY 221                                     | Organic Chemistry I                                 | 3            |
| CHMY 222                                     | Organic Chemistry I Lab                             | 2            |
| CHMY 223                                     | Organic Chemistry II                                | 3            |
| <b>Upper-Division Core Courses</b>           |                                                     |              |
| Complete all of the following courses:       |                                                     |              |
| CHMY 311                                     | Analytical Chemistry-Quantitative Analysis          | 4            |
| CHMY 373                                     | Physical Chemistry-Kinetics & Thermodynamics        | 4            |
| <b>Upper-Division Electives <sup>1</sup></b> |                                                     |              |
| Complete two of the following courses:       |                                                     | 6-8          |
| BCH 380                                      | Biochemistry                                        |              |
| BCH 480                                      | Advanced Biochemistry I                             |              |
| BCH 482                                      | Advanced Biochemistry II                            |              |
| CHMY 371                                     | Physical Chemistry-Quantum Chemistry & Spectroscopy |              |
| CHMY 401                                     | Advanced Inorganic Chemistry                        |              |
| CHMY 442                                     | Aquatic Chemistry                                   |              |
| CHMY 465                                     | Organic Spectroscopy                                |              |
| <b>Total Hours</b>                           |                                                     | <b>32-34</b> |

<sup>1</sup> If the student's major requires Biochemistry, BCH 380 or BCH 480 and BCH 482 may not be used to satisfy this requirement.

## Computer Science

The growing utility of computers in research and education as well as the increased impact of computers on our modern society strongly implies that knowledge of computers and their capabilities should be a part of the basic education of all students. The courses offered in the Department of Computer Science are designed to provide the student with this knowledge and to prepare the student for a career in a field in which there is a growing need for trained personnel. The objective of the undergraduate curriculum in computer science is to develop professionally competent, broadly educated computer scientists who wish to pursue professional careers or graduate studies.

High School Preparation: In addition to general University admission requirements, pre-college preparation should include as many computer science courses as possible and four years of high school mathematics, to include algebra, trigonometry, and pre-calculus. Also recommended are physics, chemistry, and biology.

- Computer Science B.S. - Algorithm Design (p. 350)
- Computer Science B.S. - Data Science (p. 351)
- Computer Science B.S. - Software Engineering (p. 352)
- Computer Science-Mathematical Sciences B.S. (Combined Major) (p. 353)
- Computer Science Minor (p. 355)
- Computer Programming Certificate (p. 355)

# Computer Science B.S. - Algorithm Design

## General Degree Requirements

To earn a baccalaureate degree, all students must complete successfully, in addition to any other requirements, the University of Montana General Education Requirements. Please refer to the General Education Requirements page (p. 39) for more information.

Additional requirements for graduation can be found on the Degree/Certificate Requirements for Graduation page (p. 36).

Unless otherwise noted in individual program requirements, a minimum grade point average of 2.00 in all work attempted at the University of Montana-Missoula is required for graduation. Please see the Academic Policies and Procedures page (p. 25) for information on how your GPA is calculated.

Courses taken to satisfy the requirements of a major, minor, or certificate program must be completed with a grade of C- or better unless a higher grade is noted in the program requirements.

## Bachelor of Science - Computer Science; Algorithm Design Concentration

### Course Requirements

| Code                                               | Title                                                                      | Hours |
|----------------------------------------------------|----------------------------------------------------------------------------|-------|
| <b>Computer Science Core Courses</b>               |                                                                            |       |
| Complete all of the following courses:             |                                                                            |       |
| CSCI 150                                           | Introduction to Computer Science                                           | 3     |
| CSCI 151                                           | Interdisciplinary Computer Science I                                       | 3     |
| CSCI 152                                           | Interdisciplinary Computer Science II                                      | 3     |
| CSCI 232                                           | Intermediate Data Structures and Algorithms                                | 4     |
| CSCI 258                                           | Web Application Development                                                | 3     |
| CSCI 315E                                          | Computers, Ethics, and Society (fulfills the Advanced Writing Requirement) | 3     |
| CSCI 332                                           | Advanced Data Structures and Algorithms                                    | 3     |
| CSCI 340                                           | Database Design                                                            | 3     |
| CSCI 406                                           | Careers in Computer Science                                                | 1     |
| M 171                                              | Calculus I                                                                 | 4     |
| M 225                                              | Introduction to Discrete Mathematics                                       | 3     |
| <b>Communication Requirement</b>                   |                                                                            |       |
| Complete the following course:                     |                                                                            |       |
| COMX 111A                                          | Introduction to Public Speaking                                            | 3     |
| <b>Algorithm Design Concentration Core Courses</b> |                                                                            |       |
| Complete all of the following courses:             |                                                                            |       |
| M 172                                              | Calculus II                                                                | 4     |
| M 221                                              | Introduction to Linear Algebra                                             | 4     |
| STAT 342                                           | Probability and Simulation                                                 | 3     |
| CSCI 361                                           | Computer Architecture                                                      | 3     |
| CSCI 432                                           | Advanced Algorithm Topics                                                  | 3     |
| CSCI 460                                           | Operating Systems                                                          | 3     |
| <b>Upper-Division Computer Science Electives</b>   |                                                                            |       |

|                                                                                                                                                       |                       |    |
|-------------------------------------------------------------------------------------------------------------------------------------------------------|-----------------------|----|
| Complete 18 credits of upper-division Computer Science (CSCI) courses and as many as 3 credits of approved upper division math elective. <sup>1</sup> |                       | 18 |
| <b>Approved upper-division math elective - May be taken in place of one upper-division Computer Science elective:</b>                                 |                       |    |
| M 361                                                                                                                                                 | Discrete Optimization |    |
| M 362                                                                                                                                                 | Linear Optimization   |    |
| M 414                                                                                                                                                 | Deterministic Models  |    |
| M 440                                                                                                                                                 | Numerical Analysis    |    |
| M 485                                                                                                                                                 | Graph Theory          |    |
| STAT 421                                                                                                                                              | Probability Theory    |    |

**Total Hours** **74**

<sup>1</sup> A maximum of 3 credits from each of the following groups may count toward Computer Science electives. Total credits across all groups may not exceed 6.

- Research (CSCI 390 or CSCI 490)
- Independent study (CSCI 392 or CSCI 492)
- Learning Assistant (CSCI 394)
- Internship (CSCI 398 or CSCI 498)

## Four Year Plan

| Course                        | Title                                                                     | Hours        |
|-------------------------------|---------------------------------------------------------------------------|--------------|
| <b>Freshman</b>               |                                                                           |              |
| <b>Autumn</b>                 |                                                                           |              |
| CSCI 150                      | Introduction to Computer Science                                          | 3            |
| CSCI 106                      | Careers in Computer Science                                               | 1            |
| COMX 111A                     | Introduction to Public Speaking                                           | 3            |
| Gen Ed Elective               |                                                                           | 6            |
| <b>Hours</b>                  |                                                                           | <b>13</b>    |
| <b>Spring</b>                 |                                                                           |              |
| CSCI 151                      | Interdisciplinary Computer Science I                                      | 3            |
| WRIT 101                      | College Writing I                                                         | 4            |
| M 121<br>or M 122<br>or M 151 | College Algebra <sup>1</sup><br>or College Trigonometry<br>or Precalculus | 3-4          |
| Gen Ed Elective               |                                                                           | 6            |
| <b>Hours</b>                  |                                                                           | <b>16-17</b> |
| <b>Sophomore</b>              |                                                                           |              |
| <b>Autumn</b>                 |                                                                           |              |
| CSCI 152                      | Interdisciplinary Computer Science II                                     | 3            |
| M 171                         | Calculus I                                                                | 4            |
| CSCI 258                      | Web Application Development                                               | 3            |
| Lab Science seq I             |                                                                           | 4-5          |
| <b>Hours</b>                  |                                                                           | <b>14-15</b> |
| <b>Spring</b>                 |                                                                           |              |
| CSCI 232                      | Intermediate Data Structures and Algorithms                               | 4            |
| M 225                         | Introduction to Discrete Mathematics (coreq for CSCI 232)                 | 3            |
| CSCI 361                      | Computer Architecture                                                     | 3            |
| Lab Science seq II            |                                                                           | 4-5          |
| Gen Ed Elective               |                                                                           | 3            |
| <b>Hours</b>                  |                                                                           | <b>17-18</b> |
| <b>Junior</b>                 |                                                                           |              |
| <b>Autumn</b>                 |                                                                           |              |
| CSCI 332                      | Advanced Data Structures and Algorithms                                   | 3            |
| Intermediate Writing Course   |                                                                           | 3            |
| CSCI 340                      | Database Design                                                           | 3            |



|                    |                                |                |
|--------------------|--------------------------------|----------------|
| M 172              | Calculus II                    | 4              |
| <b>Hours</b>       |                                | <b>13</b>      |
| <b>Spring</b>      |                                |                |
| CSCI 315E          | Computers, Ethics, and Society | 3              |
| CSCI 432           | Advanced Algorithm Topics      | 3              |
| M 221              | Introduction to Linear Algebra | 4              |
| Science Elective   |                                | 3-5            |
| Gen Ed Elective    |                                | 3              |
| <b>Hours</b>       |                                | <b>16-18</b>   |
| <b>Senior</b>      |                                |                |
| <b>Autumn</b>      |                                |                |
| STAT 342           | Probability and Simulation     | 3              |
| Gen Ed Elective    |                                | 3              |
| CS Core Elective   |                                | 9              |
| <b>Hours</b>       |                                | <b>15</b>      |
| <b>Spring</b>      |                                |                |
| Gen Ed Elective    |                                | 3              |
| CS Core Elective   |                                | 9              |
| M 361              | Discrete Optimization          | 3              |
| or M 362           | or Linear Optimization         |                |
| or M 414           | or Deterministic Models        |                |
| or M 440           | or Numerical Analysis          |                |
| or M 485           | or Graph Theory                |                |
| or STAT 421        | or Probability Theory          |                |
| <b>Hours</b>       |                                | <b>15</b>      |
| <b>Total Hours</b> |                                | <b>119-124</b> |

Last updated Autumn 2024

<sup>1</sup> Preparatory course - no credit towards degree, must be taken at this time to assure progression through degree

<sup>2</sup> M 162 will not be accepted for this concentration

## Computer Science B.S. - Data Science

### General Degree Requirements

To earn a baccalaureate degree, all students must complete successfully, in addition to any other requirements, the University of Montana General Education Requirements. Please refer to the General Education Requirements page (p. 39) for more information.

Additional requirements for graduation can be found on the Degree/Certificate Requirements for Graduation page (p. 36).

Unless otherwise noted in individual program requirements, a minimum grade point average of 2.00 in all work attempted at the University of Montana-Missoula is required for graduation. Please see the Academic Policies and Procedures page (p. 25) for information on how your GPA is calculated.

Courses taken to satisfy the requirements of a major, minor, or certificate program must be completed with a grade of C- or better unless a higher grade is noted in the program requirements.

## Bachelor of Science - Computer Science; Data Science Concentration

### Course Requirements

| Code                                                                                                                                                                            | Title                                                                      | Hours     |
|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|----------------------------------------------------------------------------|-----------|
| <b>Computer Science Core Courses</b>                                                                                                                                            |                                                                            |           |
| Complete all of the following courses:                                                                                                                                          |                                                                            |           |
| CSCI 150                                                                                                                                                                        | Introduction to Computer Science                                           | 3         |
| CSCI 151                                                                                                                                                                        | Interdisciplinary Computer Science I                                       | 3         |
| CSCI 152                                                                                                                                                                        | Interdisciplinary Computer Science II                                      | 3         |
| CSCI 232                                                                                                                                                                        | Intermediate Data Structures and Algorithms                                | 4         |
| CSCI 258                                                                                                                                                                        | Web Application Development                                                | 3         |
| CSCI 315E                                                                                                                                                                       | Computers, Ethics, and Society (fulfills the Advanced Writing Requirement) | 3         |
| CSCI 332                                                                                                                                                                        | Advanced Data Structures and Algorithms                                    | 3         |
| CSCI 340                                                                                                                                                                        | Database Design                                                            | 3         |
| CSCI 406                                                                                                                                                                        | Careers in Computer Science                                                | 1         |
| M 171                                                                                                                                                                           | Calculus I                                                                 | 4         |
| M 225                                                                                                                                                                           | Introduction to Discrete Mathematics                                       | 3         |
| <b>Communication Requirement</b>                                                                                                                                                |                                                                            |           |
| COMX 111A                                                                                                                                                                       | Introduction to Public Speaking                                            | 3         |
| <b>Data Science Concentration Required Courses</b>                                                                                                                              |                                                                            |           |
| Complete all of the following courses:                                                                                                                                          |                                                                            |           |
| M 172                                                                                                                                                                           | Calculus II                                                                | 4         |
| M 221                                                                                                                                                                           | Introduction to Linear Algebra                                             | 4         |
| STAT 342                                                                                                                                                                        | Probability and Simulation                                                 | 3         |
| CSCI 444                                                                                                                                                                        | Data Visualization                                                         | 3         |
| CSCI 447                                                                                                                                                                        | Machine Learning                                                           | 3         |
| CSCI 477                                                                                                                                                                        | Simulation                                                                 | 3         |
| <b>Upper-Division Computer Science Electives</b>                                                                                                                                |                                                                            |           |
| Complete at least 18 credits of Computer Science (CSCI) courses numbered 300 and above, including one course from the approved upper-division math elective courses list below. |                                                                            | 18        |
| <sup>1</sup>                                                                                                                                                                    |                                                                            |           |
| <b>Approved upper-division math elective courses:</b>                                                                                                                           |                                                                            |           |
| M 273                                                                                                                                                                           | Multivariable Calculus                                                     |           |
| M 274                                                                                                                                                                           | Introduction to Differential Equations                                     |           |
| M 440                                                                                                                                                                           | Numerical Analysis                                                         |           |
| M 445                                                                                                                                                                           | Statistical, Dynamical, and Computational Modeling                         |           |
| M 461                                                                                                                                                                           | Data Science Analytics                                                     |           |
| <b>Total Hours</b>                                                                                                                                                              |                                                                            | <b>74</b> |

<sup>1</sup> A maximum of 3 credits from each of the following groups may count toward Computer Science electives. Total credits across all groups may not exceed 6.

- Research (CSCI 390 or CSCI 490)
- Independent study (CSCI 392 or CSCI 492)
- Learning Assistant (CSCI 394)
- Internship (CSCI 398 or CSCI 498)

Four Year Plan

| Course                                                                                   | Title                                                                                                                                                                                                    | Hours        |
|------------------------------------------------------------------------------------------|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|--------------|
| <b>Freshman</b>                                                                          |                                                                                                                                                                                                          |              |
| <b>Autumn</b>                                                                            |                                                                                                                                                                                                          |              |
| CSCI 150                                                                                 | Introduction to Computer Science                                                                                                                                                                         | 3            |
| CSCI 106                                                                                 | Careers in Computer Science                                                                                                                                                                              | 1            |
| COMX 111A                                                                                | Introduction to Public Speaking                                                                                                                                                                          | 3            |
| General Education Requirement                                                            |                                                                                                                                                                                                          | 6            |
| <b>Hours</b>                                                                             |                                                                                                                                                                                                          | <b>13</b>    |
| <b>Spring</b>                                                                            |                                                                                                                                                                                                          |              |
| CSCI 151                                                                                 | Interdisciplinary Computer Science I                                                                                                                                                                     | 3            |
| WRIT 101                                                                                 | College Writing I                                                                                                                                                                                        | 4            |
| M 121<br>or M 122<br>or M 151                                                            | College Algebra (if needed) <sup>1</sup><br>or College Trigonometry<br>or Precalculus                                                                                                                    | 3-4          |
| General Education Requirement                                                            |                                                                                                                                                                                                          | 6            |
| <b>Hours</b>                                                                             |                                                                                                                                                                                                          | <b>16-17</b> |
| <b>Sophomore</b>                                                                         |                                                                                                                                                                                                          |              |
| <b>Autumn</b>                                                                            |                                                                                                                                                                                                          |              |
| CSCI 152                                                                                 | Interdisciplinary Computer Science II                                                                                                                                                                    | 3            |
| M 171                                                                                    | Calculus I                                                                                                                                                                                               | 4            |
| CSCI 258                                                                                 | Web Application Development                                                                                                                                                                              | 3            |
| Lab Science seq I                                                                        |                                                                                                                                                                                                          | 4-5          |
| <b>Hours</b>                                                                             |                                                                                                                                                                                                          | <b>14-15</b> |
| <b>Spring</b>                                                                            |                                                                                                                                                                                                          |              |
| CSCI 232                                                                                 | Intermediate Data Structures and Algorithms                                                                                                                                                              | 4            |
| M 225                                                                                    | Introduction to Discrete Mathematics                                                                                                                                                                     | 3            |
| CSCI 444                                                                                 | Data Visualization                                                                                                                                                                                       | 3            |
| Lab Science seq II                                                                       |                                                                                                                                                                                                          | 4-5          |
| General Education Requirement                                                            |                                                                                                                                                                                                          | 3            |
| <b>Hours</b>                                                                             |                                                                                                                                                                                                          | <b>17-18</b> |
| <b>Junior</b>                                                                            |                                                                                                                                                                                                          |              |
| <b>Autumn</b>                                                                            |                                                                                                                                                                                                          |              |
| CSCI 332                                                                                 | Advanced Data Structures and Algorithms                                                                                                                                                                  | 3            |
| CSCI 340                                                                                 | Database Design                                                                                                                                                                                          | 3            |
| M 172                                                                                    | Calculus II                                                                                                                                                                                              | 4            |
| Science Elective                                                                         |                                                                                                                                                                                                          | 3-5          |
| Intermediate Writing Course                                                              |                                                                                                                                                                                                          | 3            |
| <b>Hours</b>                                                                             |                                                                                                                                                                                                          | <b>16-18</b> |
| <b>Spring</b>                                                                            |                                                                                                                                                                                                          |              |
| CSCI 315E                                                                                | Computers, Ethics, and Society                                                                                                                                                                           | 3            |
| CSCI 447                                                                                 | Machine Learning                                                                                                                                                                                         | 3            |
| M 221                                                                                    | Introduction to Linear Algebra                                                                                                                                                                           | 4            |
| Science Elective                                                                         |                                                                                                                                                                                                          | 3-5          |
| General Education Requirement                                                            |                                                                                                                                                                                                          | 3            |
| <b>Hours</b>                                                                             |                                                                                                                                                                                                          | <b>16-18</b> |
| <b>Senior</b>                                                                            |                                                                                                                                                                                                          |              |
| <b>Autumn</b>                                                                            |                                                                                                                                                                                                          |              |
| CSCI 477                                                                                 | Simulation                                                                                                                                                                                               | 3            |
| STAT 342                                                                                 | Probability and Simulation                                                                                                                                                                               | 3            |
| CS Core Elective                                                                         |                                                                                                                                                                                                          | 6            |
| General Education Requirement                                                            |                                                                                                                                                                                                          | 3            |
| <b>Hours</b>                                                                             |                                                                                                                                                                                                          | <b>15</b>    |
| <b>Spring</b>                                                                            |                                                                                                                                                                                                          |              |
| BMIS 482<br>or CSCI 426 <b>and</b><br>CSCI 427<br>or CSCI 490<br>or CSCI 498<br>or M 467 | Big Data Project (Data Science Applications Elective)<br>or Software Design & Development I <b>and</b> Software<br>Design and Development II<br>or Research<br>or Internship<br>or Data Science Projects | 3            |

|                                                       |                                                                                                                                                          |                |
|-------------------------------------------------------|----------------------------------------------------------------------------------------------------------------------------------------------------------|----------------|
| M 273<br>or M 274<br>or M 440<br>or M 445<br>or M 461 | Multivariable Calculus (Advanced Math Elective)<br>or Introduction to Differential Equations<br>or Numerical Analysis<br>or<br>or Data Science Analytics | 3-4            |
| CS Core Elective                                      |                                                                                                                                                          | 6              |
| General Education Requirement                         |                                                                                                                                                          | 3              |
| <b>Hours</b>                                          |                                                                                                                                                          | <b>15-16</b>   |
| <b>Total Hours</b>                                    |                                                                                                                                                          | <b>122-130</b> |

Last updated Autumn 2024

<sup>1</sup> Preparatory course - no credit towards degree, must be taken at this time to assure progression through degree  
<sup>2</sup> M 162 will not be accepted for this concentration

Computer Science B.S. - Software Engineering

General Degree Requirements

To earn a baccalaureate degree, all students must complete successfully, in addition to any other requirements, the University of Montana General Education Requirements. Please refer to the General Education Requirements page (p. 39) for more information.

Additional requirements for graduation can be found on the Degree/ Certificate Requirements for Graduation page (p. 36).

Unless otherwise noted in individual program requirements, a minimum grade point average of 2.00 in all work attempted at the University of Montana-Missoula is required for graduation. Please see the Academic Policies and Procedures page (p. 25) for information on how your GPA is calculated.

Courses taken to satisfy the requirements of a major, minor, or certificate program must be completed with a grade of C- or better unless a higher grade is noted in the program requirements.

Bachelor of Science - Computer Science; Software Engineering Concentration Course Requirements

| Code                                   | Title                                                                      | Hours |
|----------------------------------------|----------------------------------------------------------------------------|-------|
| <b>Computer Science Core Courses</b>   |                                                                            |       |
| Complete all of the following courses: |                                                                            |       |
| CSCI 150                               | Introduction to Computer Science                                           | 3     |
| CSCI 151                               | Interdisciplinary Computer Science I                                       | 3     |
| CSCI 152                               | Interdisciplinary Computer Science II                                      | 3     |
| CSCI 232                               | Intermediate Data Structures and Algorithms                                | 4     |
| CSCI 258                               | Web Application Development                                                | 3     |
| CSCI 315E                              | Computers, Ethics, and Society (fulfills the Advanced Writing Requirement) | 3     |
| CSCI 332                               | Advanced Data Structures and Algorithms                                    | 3     |
| CSCI 340                               | Database Design                                                            | 3     |
| CSCI 406                               | Careers in Computer Science                                                | 1     |
| M 171<br>or M 162                      | Calculus I<br>Applied Calculus                                             | 4     |

|                                                                                             |                                      |           |
|---------------------------------------------------------------------------------------------|--------------------------------------|-----------|
| M 225                                                                                       | Introduction to Discrete Mathematics | 3         |
| <b>Communication Requirement</b>                                                            |                                      |           |
| Complete the following course:                                                              |                                      | 3         |
| COMX 111A                                                                                   | Introduction to Public Speaking      | 3         |
| <b>Software Engineering Concentration Required Courses</b>                                  |                                      |           |
| Complete all of the following courses:                                                      |                                      |           |
| CSCI 181                                                                                    | Web Design and Programming           | 3         |
| CSCI 322                                                                                    | Advanced Web Application Development | 3         |
| CSCI 323                                                                                    | Software Science                     | 3         |
| CSCI 423                                                                                    | Advanced Software Engineering        | 3         |
| CSCI 426                                                                                    | Software Design & Development I      | 3         |
| CSCI 427                                                                                    | Software Design and Development II   | 3         |
| <b>Upper-Division Computer Science Electives</b>                                            |                                      |           |
| Complete 18 credits of Computer Science (CSCI) courses numbered 300 and above. <sup>1</sup> |                                      | 18        |
| <b>Total Hours</b>                                                                          |                                      | <b>75</b> |

<sup>1</sup> A maximum of 3 credits from each of the following groups may count toward Computer Science electives. Total credits across all groups may not exceed 6.

- Research (CSCI 390 or CSCI 490)
- Independent study (CSCI 392 or CSCI 492)
- Learning Assistant (CSCI 394)
- Internship (CSCI 398 or CSCI 498)

## Four Year Plan

| Course                        | Title                                       | Hours        |
|-------------------------------|---------------------------------------------|--------------|
| <b>Freshman</b>               |                                             |              |
| <b>Autumn</b>                 |                                             |              |
| CSCI 150                      | Introduction to Computer Science            | 3            |
| CSCI 106                      | Careers in Computer Science                 | 1            |
| COMX 111A                     | Introduction to Public Speaking             | 3            |
| General Education Requirement |                                             | 6            |
| <b>Hours</b>                  |                                             | <b>13</b>    |
| <b>Spring</b>                 |                                             |              |
| CSCI 151                      | Interdisciplinary Computer Science I        | 3            |
| WRIT 101                      | College Writing I                           | 4            |
| CSCI 181                      | Web Design and Programming                  | 3            |
| M 121                         | College Algebra (if needed) <sup>1</sup>    | 3-4          |
| or M 122                      | or College Trigonometry                     |              |
| or M 151                      | or Precalculus                              |              |
| <b>Hours</b>                  |                                             | <b>13-14</b> |
| <b>Sophomore</b>              |                                             |              |
| <b>Autumn</b>                 |                                             |              |
| CSCI 152                      | Interdisciplinary Computer Science II       | 3            |
| M 171                         | Calculus I                                  | 4            |
| or M 162                      | or Applied Calculus                         |              |
| CSCI 258                      | Web Application Development                 | 3            |
| Lab Science seq I             |                                             | 4-5          |
| <b>Hours</b>                  |                                             | <b>14-15</b> |
| <b>Spring</b>                 |                                             |              |
| CSCI 232                      | Intermediate Data Structures and Algorithms | 4            |
| M 225                         | Introduction to Discrete Mathematics        | 3            |
| CSCI 322                      | Advanced Web Application Development        | 3            |
| Lab Science seq II            |                                             | 4-5          |
| General Education Requirement |                                             | 3            |
| <b>Hours</b>                  |                                             | <b>17-18</b> |

|                               |                                                      |                |
|-------------------------------|------------------------------------------------------|----------------|
| <b>Junior</b>                 |                                                      |                |
| <b>Autumn</b>                 |                                                      |                |
| CSCI 332                      | Advanced Data Structures and Algorithms              | 3              |
| CSCI 340                      | Database Design                                      | 3              |
| Science Elective              |                                                      | 3-5            |
| Intermediate Writing Course   |                                                      | 3              |
| General Education Requirement |                                                      | 3              |
| <b>Hours</b>                  |                                                      | <b>15-17</b>   |
| <b>Spring</b>                 |                                                      |                |
| CSCI 315E                     | Computers, Ethics, and Society                       | 3              |
| CSCI 443                      | User Interface Design                                | 3              |
| or CSCI 444                   | or Data Visualization                                |                |
| or CSCI 498                   | or Internship                                        |                |
| Science Elective              |                                                      | 3-5            |
| CS Core Elective              |                                                      |                |
| General Education Requirement |                                                      | 3              |
| <b>Hours</b>                  |                                                      | <b>12-14</b>   |
| <b>Senior</b>                 |                                                      |                |
| <b>Autumn</b>                 |                                                      |                |
| CSCI 426                      | Software Design & Development I                      | 3              |
| CS Core Elective              |                                                      | 6              |
| M 361                         | Discrete Optimization (Upper Division Math Elective) | 3              |
| or M 362                      | or Linear Optimization                               |                |
| or M 414                      | or Deterministic Models                              |                |
| or M 440                      | or Numerical Analysis                                |                |
| or M 485                      | or Graph Theory                                      |                |
| or STAT 421                   | or Probability Theory                                |                |
| General Education Requirement |                                                      | 3              |
| <b>Hours</b>                  |                                                      | <b>15</b>      |
| <b>Spring</b>                 |                                                      |                |
| CSCI 427                      | Software Design and Development II                   | 3              |
| CS Core Elective              |                                                      | 9              |
| General Education Requirement |                                                      | 3              |
| <b>Hours</b>                  |                                                      | <b>15</b>      |
| <b>Total Hours</b>            |                                                      | <b>114-121</b> |

*Last updated Autumn 2025*

<sup>1</sup> Preparatory course - no credit towards degree, must be taken at this time to assure progression through degree

## Computer Science-Mathematical Sciences B.S. (Combined Major)

The purpose of the combined program is to provide a thorough background in both allied disciplines and to inculcate a deeper understanding of their goals and methods. A student must complete 62 credits in the two disciplines:

- 31 of these credits in Computer Science courses and
- 31 of these credits in Mathematical Sciences courses.

Each student plans a program in consultation with a Computer Science and a Mathematical Sciences advisor. Students planning to attend graduate school in computer science or the mathematical sciences should consult with their respective advisors.

## General Degree Requirements

To earn a baccalaureate degree, all students must complete successfully, in addition to any other requirements, the University of Montana

General Education Requirements. Please refer to the General Education Requirements page (p. 39) for more information.

Additional requirements for graduation can be found on the Degree/Certificate Requirements for Graduation page (p. 36).

Unless otherwise noted in individual program requirements, a minimum grade point average of 2.00 in all work attempted at the University of Montana-Missoula is required for graduation. Please see the Academic Policies and Procedures page (p. 25) for information on how your GPA is calculated.

Courses taken to satisfy the requirements of a major, minor, or certificate program must be completed with a grade of C- or better unless a higher grade is noted in the program requirements.

## Bachelor of Science - Computer Science-Mathematical Science

### Course Requirements

| Code                                                | Title                                                                         | Hours |
|-----------------------------------------------------|-------------------------------------------------------------------------------|-------|
| <b>Mathematical Sciences Core</b>                   |                                                                               |       |
| Complete all of the following courses:              |                                                                               |       |
| M 171                                               | Calculus I                                                                    | 4     |
| or M 181                                            | Honors Calculus I                                                             |       |
| M 172                                               | Calculus II                                                                   | 4     |
| or M 182                                            | Honors Calculus II                                                            |       |
| M 221                                               | Introduction to Linear Algebra                                                | 4     |
| M 273                                               | Multivariable Calculus                                                        | 4     |
| M 307                                               | Introduction to Abstract Mathematics                                          | 3     |
| or M 225                                            | Introduction to Discrete Mathematics                                          |       |
| <b>Mathematical Sciences Electives <sup>1</sup></b> |                                                                               |       |
| Complete 12 credits of the following courses:       |                                                                               | 12    |
| M 274                                               | Introduction to Differential Equations                                        |       |
| M 325                                               | Discrete Mathematics                                                          |       |
| M 326                                               | Number Theory                                                                 |       |
| M 361                                               | Discrete Optimization                                                         |       |
| M 362                                               | Linear Optimization                                                           |       |
| M 381                                               | Advanced Calculus I                                                           |       |
| M 412                                               | Partial Differential Equations                                                |       |
| M 414                                               | Deterministic Models                                                          |       |
| M 429                                               | History of Mathematics                                                        |       |
| M 431                                               | Abstract Algebra I                                                            |       |
| M 432                                               | Abstract Algebra II                                                           |       |
| M 439                                               | Euclidean and NonEuclidean Geometry                                           |       |
| M 440                                               | Numerical Analysis                                                            |       |
| M 445                                               | Statistical, Dynamical, and Computational Modeling                            |       |
| M 461                                               | Data Science Analytics                                                        |       |
| M 462                                               | Theoretical Basics of Big Data Analytics and Real Time Computation Algorithms |       |
| M 472                                               | Introduction to Complex Analysis                                              |       |
| M 473                                               | Introduction to Real Analysis                                                 |       |
| M 485                                               | Graph Theory                                                                  |       |
| STAT 342                                            | Probability and Simulation                                                    |       |
| STAT 421                                            | Probability Theory                                                            |       |

|                                                                          |                                             |           |
|--------------------------------------------------------------------------|---------------------------------------------|-----------|
| STAT 422                                                                 | Mathematical Statistics                     |           |
| STAT 451                                                                 | Statistical Methods I                       |           |
| STAT 452                                                                 | Statistical Methods II                      |           |
| <b>Computer Science Core</b>                                             |                                             |           |
| Complete all of the following courses:                                   |                                             |           |
| CSCI 150                                                                 | Introduction to Computer Science            | 3         |
| CSCI 151                                                                 | Interdisciplinary Computer Science I        | 3         |
| CSCI 152                                                                 | Interdisciplinary Computer Science II       | 3         |
| CSCI 232                                                                 | Intermediate Data Structures and Algorithms | 4         |
| CSCI 258                                                                 | Web Application Development                 | 3         |
| CSCI 332                                                                 | Advanced Data Structures and Algorithms     | 3         |
| CSCI 340                                                                 | Database Design                             | 3         |
| <b>Computer Science Electives <sup>2</sup></b>                           |                                             |           |
| Complete 9 credits of upper-division (300-level or higher) CSCI courses. |                                             | 9         |
| <b>Public Speaking Requirement</b>                                       |                                             |           |
| Complete the following course:                                           |                                             |           |
| COMX 111A                                                                | Introduction to Public Speaking             | 3         |
| <b>Total Hours</b>                                                       |                                             | <b>65</b> |

<sup>1</sup> The combined 9 credits of Computer Science Electives and twelve 12 credits of Mathematical Sciences Electives must include at least three 3 or 4 credit courses numbered 400 or above, with at least one chosen from each department (not including M 429 and STAT 451, STAT 452).

<sup>2</sup> A total of at most three of the 9 credits of Computer Science Electives may be in CSCI 398 or CSCI 498.

## Four Year Plan

| Course                        | Title                                             | Hours        |
|-------------------------------|---------------------------------------------------|--------------|
| <b>Freshman</b>               |                                                   |              |
| <b>Autumn</b>                 |                                                   |              |
| CSCI 150                      | Introduction to Computer Science <sup>1</sup>     | 3            |
| M 171                         | Calculus I <sup>2</sup>                           | 4            |
| WRIT 101                      | College Writing I                                 | 3-4          |
| or COMX 111A                  | or Introduction to Public Speaking                |              |
| General Education Requirement |                                                   | 4            |
| <b>Hours</b>                  |                                                   | <b>14-15</b> |
| <b>Spring</b>                 |                                                   |              |
| CSCI 151                      | Interdisciplinary Computer Science I <sup>1</sup> | 3            |
| M 172                         | Calculus II                                       | 4            |
| COMX 111A                     | Introduction to Public Speaking                   | 3-4          |
| or WRIT 101                   | or College Writing I                              |              |
| General Education Requirement |                                                   | 6            |
| <b>Hours</b>                  |                                                   | <b>16-17</b> |
| <b>Sophomore</b>              |                                                   |              |
| <b>Autumn</b>                 |                                                   |              |
| CSCI 152                      | Interdisciplinary Computer Science II             | 3            |
| CSCI 258                      | Web Application Development                       | 3            |
| M 225                         | Introduction to Discrete Mathematics              | 3            |
| or M 307                      | or Introduction to Abstract Mathematics           |              |
| General Education Requirement |                                                   | 6            |
| <b>Hours</b>                  |                                                   | <b>15</b>    |
| <b>Spring</b>                 |                                                   |              |
| CSCI 232                      | Intermediate Data Structures and Algorithms       | 4            |
| M 273                         | Multivariable Calculus                            | 4            |
| Elective                      |                                                   | 3            |

|                                                  |                |
|--------------------------------------------------|----------------|
| General Education Requirement                    | 3              |
| <b>Hours</b>                                     | <b>14</b>      |
| <b>Junior</b>                                    |                |
| <b>Autumn</b>                                    |                |
| CSCI 332 Advanced Data Structures and Algorithms | 3              |
| M 221 Introduction to Linear Algebra             | 4              |
| General Education Requirement                    | 3              |
| Elective                                         | 6              |
| <b>Hours</b>                                     | <b>16</b>      |
| <b>Spring</b>                                    |                |
| CSCI 340 Database Design                         | 3              |
| Math Elective 300+ <sup>3</sup>                  | 3              |
| Math Elective 300+ <sup>3</sup>                  | 3              |
| General Education Requirement                    | 3              |
| Elective                                         | 3              |
| <b>Hours</b>                                     | <b>15</b>      |
| <b>Senior</b>                                    |                |
| <b>Autumn</b>                                    |                |
| Math Elective 300+ <sup>3</sup>                  | 3-4            |
| CSCI Elective 300+ <sup>3</sup>                  | 3              |
| CSCI Elective 300+ <sup>3</sup>                  | 3              |
| Elective                                         | 6              |
| <b>Hours</b>                                     | <b>15-16</b>   |
| <b>Spring</b>                                    |                |
| Math Elective 300+ <sup>3</sup>                  | 3-4            |
| CSCI Elective 300+ <sup>3</sup>                  | 3              |
| Elective                                         | 9              |
| <b>Hours</b>                                     | <b>15-16</b>   |
| <b>Total Hours</b>                               | <b>120-124</b> |

Last updated Autumn 2025

- <sup>1</sup> Students may begin with CSCI 151 in their first semester if they can pass a programming skills entrance exam.
- <sup>2</sup> This degree template can be adapted for students who are not ready to take M 171 (Calculus I) in their first semester.
- <sup>3</sup> Details regarding the Math and Computer Science Electives are in the Catalog and on Degree Works. Choose these courses with your advisor.

## Computer Science Minor

### General Degree Requirements

To earn a baccalaureate degree, all students must complete successfully, in addition to any other requirements, the University of Montana General Education Requirements. Please refer to the General Education Requirements page (p. 39) for more information.

Additional requirements for graduation can be found on the Degree/Certificate Requirements for Graduation page (p. 36).

Unless otherwise noted in individual program requirements, a minimum grade point average of 2.00 in all work attempted at the University of Montana-Missoula is required for graduation. Please see the Academic Policies and Procedures page (p. 25) for information on how your GPA is calculated.

Courses taken to satisfy the requirements of a major, minor, or certificate program must be completed with a grade of C- or better unless a higher grade is noted in the program requirements.

## Minor - Computer Science

### Course Requirements

| Code                                                                                                                               | Title                                       | Hours     |
|------------------------------------------------------------------------------------------------------------------------------------|---------------------------------------------|-----------|
| <b>Fundamentals</b>                                                                                                                |                                             |           |
| Complete all of the following courses:                                                                                             |                                             |           |
| CSCI 150                                                                                                                           | Introduction to Computer Science            | 3         |
| CSCI 151                                                                                                                           | Interdisciplinary Computer Science I        | 3         |
| CSCI 152                                                                                                                           | Interdisciplinary Computer Science II       | 3         |
| CSCI 232                                                                                                                           | Intermediate Data Structures and Algorithms | 4         |
| <b>Electives</b>                                                                                                                   |                                             |           |
| Complete 6 credits of the Computer Science (CSCI) at the 200-level or above. At least 3 credits must be at the 300-level or above. |                                             | 6         |
| <b>Total Hours</b>                                                                                                                 |                                             | <b>19</b> |

## Computer Programming Certificate

Programming is an essential skill for solving problems in many fields. Programming gives maximum flexibility in processing and understanding data, constructing computational models, and building user friendly applications. Programming skills are in high demand in the marketplace. Completing this certificate could be the first step towards a career that involves software development.

Students will apply object-oriented principles to develop software systems. Students will learn to apply and program data structures like lists, trees, and hash tables. The elective course allows the student to learn about software engineering, web programming, mobile device programming, or user interface design.

## General Certificate Requirements

Additional requirements for graduation can be found on the Degree/Certificate Requirements for Graduation page (p. 36).

Unless otherwise noted in individual program requirements, a minimum grade point average of 2.00 in all work attempted at the University of Montana-Missoula is required for graduation. Please see the Academic Policies and Procedures page (p. 25) for information on how your GPA is calculated.

Courses taken to satisfy the requirements of a major, minor, or certificate program must be completed with a grade of C- or better unless a higher grade is noted in the program requirements.

## Post-Secondary Certificate - Computer Programming

### Course Requirements

| Code                                   | Title                                         | Hours |
|----------------------------------------|-----------------------------------------------|-------|
| <b>Required Courses</b>                |                                               |       |
| Complete all of the following courses: |                                               |       |
| CSCI 150                               | Introduction to Computer Science <sup>1</sup> | 3     |
| CSCI 151                               | Interdisciplinary Computer Science I          | 3     |
| <b>Electives</b>                       |                                               |       |
| Complete two of the following courses: |                                               | 6-7   |
| CSCI 152                               | Interdisciplinary Computer Science II         |       |



|                    |                                             |              |
|--------------------|---------------------------------------------|--------------|
| CSCI 181           | Web Design and Programming                  |              |
| CSCI 232           | Intermediate Data Structures and Algorithms |              |
| CSCI 258           | Web Application Development                 |              |
| <b>Total Hours</b> |                                             | <b>12-13</b> |

<sup>1</sup> A placement examination exempts some students from taking CSCI 150. Those students take a CSCI course at the 200 level or higher instead. CSCI 215E and CSCI 315E are writing classes and cannot be applied toward this certificate.

## Mathematical Sciences

Mathematics is studied both as a tool and for its own sake. Its usefulness for the sciences and in decision-making processes makes it an indispensable part of many curricula. Mathematics is challenging, fascinating, and beautiful; and it is also appreciated by many who seek primarily to use mathematics as a tool.

The Department of Mathematical Sciences provides students with the training in mathematics and statistics necessary for success in their careers. The instructional mission of the department has three components: we offer general education quantitative literacy courses; we provide the mathematical background for students preparing for careers in other fields; and we offer a quality program of mathematical specialization at all levels, ranging from an undergraduate minor to bachelors, masters, and doctoral degrees in a variety of fields, including teacher preparation.

Mathematics more and more becomes an integral part of high-tech industries; many technological, political, and social processes have become so complex that they could not be really understood without a mathematician's involvement. Our graduates are prepared for exciting and fulfilling careers in academia, industry, government, and other areas. In addition to educational activities, our faculty are committed to excellence both in research in the mathematical sciences and in service to the citizens of Montana and the wider community.

**High School Preparation:** For studying mathematics at the University level, it is recommended that the high school course work consist of four years of college-preparatory mathematics, including geometry, trigonometry, and college algebra or precalculus. A course in calculus or statistics is helpful, but not necessary. It is unusual to complete an undergraduate degree in mathematics in four years without the necessary background to take M 171 during the freshman year (preferably during the first semester at the university).

- Mathematical Sciences-Computer Science B.S. (Combined Major) (p. 356)
- Mathematics B.A. (p. 358)
- Mathematics B.A. - Applied Mathematics (p. 360)
- Mathematics B.A. - Combinatorics and Optimization (p. 362)
- Mathematics B.A. - Mathematics Education (p. 363)
- Mathematics B.A. - Pure Mathematics (p. 365)
- Mathematics B.A. - Statistics and Data Science (p. 366)
- Mathematics Education Minor (p. 367)
- Mathematics Minor (p. 368)

## Mathematical Sciences-Computer Science B.S. (Combined Major)

The purpose of the combined program is to provide a thorough background in both allied disciplines and to inculcate a deeper understanding of their goals and methods. A student must complete 62 credits in the two disciplines:

- 31 of these credits in Computer Science courses and
- 31 of these credits in Mathematical Sciences courses.

Each student plans a program in consultation with both a Computer Science and a Mathematical Sciences advisor. Students planning to attend graduate school in computer science or the mathematical sciences should consult with their respective advisors.

## General Degree Requirements

To earn a baccalaureate degree, all students must complete successfully, in addition to any other requirements, the University of Montana General Education Requirements. Please refer to the General Education Requirements page (p. 39) for more information.

Additional requirements for graduation can be found on the Degree/Certificate Requirements for Graduation page (p. 36).

Unless otherwise noted in individual program requirements, a minimum grade point average of 2.00 in all work attempted at the University of Montana-Missoula is required for graduation. Please see the Academic Policies and Procedures page (p. 25) for information on how your GPA is calculated.

Courses taken to satisfy the requirements of a major, minor, or certificate program must be completed with a grade of C- or better unless a higher grade is noted in the program requirements.

## Bachelor of Science - Mathematical Science-Computer Science Course Requirements

| Code                                                | Title                                  | Hours |
|-----------------------------------------------------|----------------------------------------|-------|
| <b>Mathematical Sciences Core</b>                   |                                        |       |
| Complete all of the following courses:              |                                        |       |
| M 171                                               | Calculus I                             | 4     |
| or M 181                                            | Honors Calculus I                      |       |
| M 172                                               | Calculus II                            | 4     |
| or M 182                                            | Honors Calculus II                     |       |
| M 221                                               | Introduction to Linear Algebra         | 4     |
| M 273                                               | Multivariable Calculus                 | 4     |
| M 307                                               | Introduction to Abstract Mathematics   | 3     |
| or M 225                                            | Introduction to Discrete Mathematics   |       |
| <b>Mathematical Sciences Electives <sup>1</sup></b> |                                        |       |
| Complete 12 credits of the following courses:       |                                        | 12    |
| M 274                                               | Introduction to Differential Equations |       |
| M 325                                               | Discrete Mathematics                   |       |
| M 326                                               | Number Theory                          |       |
| M 361                                               | Discrete Optimization                  |       |
| M 362                                               | Linear Optimization                    |       |

|                                                                          |                                                                               |           |
|--------------------------------------------------------------------------|-------------------------------------------------------------------------------|-----------|
| M 381                                                                    | Advanced Calculus I                                                           |           |
| M 412                                                                    | Partial Differential Equations                                                |           |
| M 414                                                                    | Deterministic Models                                                          |           |
| M 429                                                                    | History of Mathematics                                                        |           |
| M 431                                                                    | Abstract Algebra I                                                            |           |
| M 432                                                                    | Abstract Algebra II                                                           |           |
| M 439                                                                    | Euclidean and NonEuclidean Geometry                                           |           |
| M 440                                                                    | Numerical Analysis                                                            |           |
| M 445                                                                    | Statistical, Dynamical, and Computational Modeling                            |           |
| M 461                                                                    | Data Science Analytics                                                        |           |
| M 462                                                                    | Theoretical Basics of Big Data Analytics and Real Time Computation Algorithms |           |
| M 472                                                                    | Introduction to Complex Analysis                                              |           |
| M 473                                                                    | Introduction to Real Analysis                                                 |           |
| M 485                                                                    | Graph Theory                                                                  |           |
| STAT 342                                                                 | Probability and Simulation                                                    |           |
| STAT 421                                                                 | Probability Theory                                                            |           |
| STAT 422                                                                 | Mathematical Statistics                                                       |           |
| STAT 451                                                                 | Statistical Methods I                                                         |           |
| STAT 452                                                                 | Statistical Methods II                                                        |           |
| <b>Computer Science Core</b>                                             |                                                                               |           |
| Complete all of the following courses:                                   |                                                                               |           |
| CSCI 150                                                                 | Introduction to Computer Science                                              | 3         |
| CSCI 151                                                                 | Interdisciplinary Computer Science I                                          | 3         |
| CSCI 152                                                                 | Interdisciplinary Computer Science II                                         | 3         |
| CSCI 232                                                                 | Intermediate Data Structures and Algorithms                                   | 4         |
| CSCI 258                                                                 | Web Application Development                                                   | 3         |
| CSCI 332                                                                 | Advanced Data Structures and Algorithms                                       | 3         |
| CSCI 340                                                                 | Database Design                                                               | 3         |
| <b>Computer Science Electives</b> <sup>1, 2</sup>                        |                                                                               |           |
| Complete 9 credits of upper-division (300-level or higher) CSCI courses. |                                                                               | 9         |
| <b>Public Speaking Requirement</b>                                       |                                                                               |           |
| Complete the following course:                                           |                                                                               |           |
| COMX 111A                                                                | Introduction to Public Speaking                                               | 3         |
| <b>Total Hours</b>                                                       |                                                                               | <b>65</b> |

<sup>1</sup> The combined nine credits of Computer Science Electives and twelve credits of Mathematical Sciences Electives must include at least three 3- or 4-credit courses numbered 400 or above with at least one chosen from each department (not including M 429 and STAT 451, STAT 452).

<sup>2</sup> A total of at most three of the nine credits of Computer Science Electives may be in CSCI 398 or CSCI 498.

## Four Year Plan

| Course                   | Title                                                   | Hours |
|--------------------------|---------------------------------------------------------|-------|
| <b>Freshman</b>          |                                                         |       |
| <b>Autumn</b>            |                                                         |       |
| CSCI 150                 | Introduction to Computer Science <sup>1</sup>           | 3     |
| M 171                    | Calculus I <sup>2</sup>                                 | 4     |
| WRIT 101<br>or COMX 111A | College Writing I<br>or Introduction to Public Speaking | 3-4   |

|                                 |                                                                                 |                |
|---------------------------------|---------------------------------------------------------------------------------|----------------|
| General Education Requirement   |                                                                                 | 4              |
| <b>Hours</b>                    |                                                                                 | <b>14-15</b>   |
| <b>Spring</b>                   |                                                                                 |                |
| CSCI 151                        | Interdisciplinary Computer Science I <sup>1</sup>                               | 3              |
| M 172                           | Calculus II                                                                     | 4              |
| COMX 111A<br>or WRIT 101        | Introduction to Public Speaking<br>or College Writing I                         | 3-4            |
| General Education Requirement   |                                                                                 | 6              |
| <b>Hours</b>                    |                                                                                 | <b>16-17</b>   |
| <b>Sophomore</b>                |                                                                                 |                |
| <b>Autumn</b>                   |                                                                                 |                |
| CSCI 152                        | Interdisciplinary Computer Science II                                           | 3              |
| CSCI 258                        | Web Application Development                                                     | 3              |
| M 225<br>or M 307               | Introduction to Discrete Mathematics<br>or Introduction to Abstract Mathematics | 3              |
| General Education Requirement   |                                                                                 | 6              |
| <b>Hours</b>                    |                                                                                 | <b>15</b>      |
| <b>Spring</b>                   |                                                                                 |                |
| CSCI 232                        | Intermediate Data Structures and Algorithms                                     | 4              |
| M 273                           | Multivariable Calculus                                                          | 4              |
| General Education Requirement   |                                                                                 | 3              |
| Elective                        |                                                                                 | 3              |
| <b>Hours</b>                    |                                                                                 | <b>14</b>      |
| <b>Junior</b>                   |                                                                                 |                |
| <b>Autumn</b>                   |                                                                                 |                |
| CSCI 332                        | Advanced Data Structures and Algorithms                                         | 3              |
| M 221                           | Introduction to Linear Algebra                                                  | 4              |
| General Education Requirement   |                                                                                 | 3              |
| Elective                        |                                                                                 | 6              |
| <b>Hours</b>                    |                                                                                 | <b>16</b>      |
| <b>Spring</b>                   |                                                                                 |                |
| CSCI 340                        | Database Design                                                                 | 3              |
| Math Elective 300+ <sup>3</sup> |                                                                                 | 3              |
| Math Elective 300+ <sup>3</sup> |                                                                                 | 3              |
| General Education Requirement   |                                                                                 | 3              |
| Elective                        |                                                                                 | 3              |
| <b>Hours</b>                    |                                                                                 | <b>15</b>      |
| <b>Senior</b>                   |                                                                                 |                |
| <b>Autumn</b>                   |                                                                                 |                |
| CSCI Elective 300+ <sup>3</sup> |                                                                                 | 3              |
| CSCI Elective 300+ <sup>3</sup> |                                                                                 | 3              |
| Math Elective 300+ <sup>3</sup> |                                                                                 | 3-4            |
| Elective                        |                                                                                 | 6              |
| <b>Hours</b>                    |                                                                                 | <b>15-16</b>   |
| <b>Spring</b>                   |                                                                                 |                |
| Math Elective 300+ <sup>3</sup> |                                                                                 | 3-4            |
| CSCI Elective 300+ <sup>3</sup> |                                                                                 | 3              |
| Elective                        |                                                                                 | 9              |
| <b>Hours</b>                    |                                                                                 | <b>15-16</b>   |
| <b>Total Hours</b>              |                                                                                 | <b>120-124</b> |

*Last updated Autumn 2025*

<sup>1</sup> Students may begin with CSCI 151 in their first semester if they can pass a programming skills entrance exam.

<sup>2</sup> This degree template can be adapted for students who are not ready to take M 171 (Calculus I) in their first semester.

<sup>3</sup> Details regarding the Math and Computer Science Electives are in the Catalog and on Degree Works. Choose these courses with your advisor.

## Mathematics B.A.

This degree is the BA in Mathematics without a concentration. Students can add one or more of the concentrations in Applied Mathematics, Combinatorics & Optimization, Pure Mathematics, or Statistics and Data Science to this degree by fulfilling the respective Concentration Requirements (achieved by taking specific Upper-Division Elective Courses). Typically, students declare one of these four concentrations during their sophomore or junior year. Note that the requirements for the Mathematics Education concentration are extensive and differ substantially from the requirements for the other concentrations. Students interested in Mathematics Education are encouraged to declare this concentration as early as possible, preferably during their first year at UM.

## General Degree Requirements

To earn a baccalaureate degree, all students must complete successfully, in addition to any other requirements, the University of Montana General Education Requirements. Please refer to the General Education Requirements page (p. 39) for more information.

Additional requirements for graduation can be found on the Degree/Certificate Requirements for Graduation page (p. 36).

Unless otherwise noted in individual program requirements, a minimum grade point average of 2.00 in all work attempted at the University of Montana-Missoula is required for graduation. Please see the Academic Policies and Procedures page (p. 25) for information on how your GPA is calculated.

Courses taken to satisfy the requirements of a major, minor, or certificate program must be completed with a grade of C- or better unless a higher grade is noted in the program requirements.

## Bachelor of Arts - Mathematics

### Credit Requirements

The major specific credits are much lower for double-majors and for students completing a minor in another subject:

- 41 credits for students completing a second major, and
- 46 credits for students completing a minor.

### GPA Requirement

- A cumulative GPA of 2.0 is required for all courses used to fulfill major requirements.
- In addition, a cumulative GPA of 2.0 is required for all mathematical sciences courses used to fulfill major requirements. (Mathematical sciences courses are those with a prefix of M or STAT.)

### Course Requirements

| Code                                   | Title                                 | Hours |
|----------------------------------------|---------------------------------------|-------|
| <b>Core Courses</b>                    |                                       |       |
| Complete all of the following courses: |                                       |       |
| M 171                                  | Calculus I                            | 4     |
| or M 181                               | Honors Calculus I                     |       |
| M 172                                  | Calculus II                           | 4     |
| or M 182                               | Honors Calculus II                    |       |
| M 210                                  | Introduction to Mathematical Software | 3     |
| M 221                                  | Introduction to Linear Algebra        | 4     |

|       |                                      |   |
|-------|--------------------------------------|---|
| M 273 | Multivariable Calculus               | 4 |
| M 300 | Undergraduate Mathematics Seminar    | 1 |
| M 307 | Introduction to Abstract Mathematics | 3 |

### Electives <sup>1</sup>

Complete 18-23 credits (6-7 courses) of the following courses. 18-23  
At least three courses must be at the 400 level. See note below about the elective credit requirement.

|          |                                                                               |
|----------|-------------------------------------------------------------------------------|
| M 274    | Introduction to Differential Equations                                        |
| M 301    | Teaching Mathematics with Technology                                          |
| M 325    | Discrete Mathematics                                                          |
| M 326    | Number Theory                                                                 |
| M 361    | Discrete Optimization                                                         |
| M 362    | Linear Optimization                                                           |
| M 381    | Advanced Calculus I                                                           |
| M 412    | Partial Differential Equations                                                |
| M 414    | Deterministic Models                                                          |
| M 429    | History of Mathematics <sup>2</sup>                                           |
| M 431    | Abstract Algebra I                                                            |
| M 432    | Abstract Algebra II                                                           |
| M 439    | Euclidean and NonEuclidean Geometry                                           |
| M 440    | Numerical Analysis                                                            |
| M 445    | Statistical, Dynamical, and Computational Modeling                            |
| M 461    | Data Science Analytics                                                        |
| M 462    | Theoretical Basics of Big Data Analytics and Real Time Computation Algorithms |
| M 472    | Introduction to Complex Analysis                                              |
| M 473    | Introduction to Real Analysis                                                 |
| M 485    | Graph Theory                                                                  |
| STAT 342 | Probability and Simulation                                                    |
| STAT 421 | Probability Theory                                                            |
| STAT 422 | Mathematical Statistics                                                       |
| STAT 452 | Statistical Methods II                                                        |

### Science Requirement <sup>3</sup>

Complete 18 credits in at most 3 areas selected from astronomy (ASTR), biology (BIO\*), chemistry (CHMY), computer science (CSCI, except CSCI TR\*), economics (ECNS), forestry (FORS, WILD), geosciences (GEO), management information systems (BMIS), and physics (PHSX). 18

### Language/Computer Science Requirement <sup>4</sup>

Complete either the General Education Language Requirement or complete one of the following courses: 3

|          |                                       |
|----------|---------------------------------------|
| CSCI 150 | Introduction to Computer Science      |
| CSCI 151 | Interdisciplinary Computer Science I  |
| CSCI 152 | Interdisciplinary Computer Science II |

**Total Hours** 62-67

<sup>1</sup> Students completing a second major need take only 18 credits. Students completing a minor in another subject need take only 20 credits. All other students must complete 23 credits and 7 courses. At least 4 of the courses in this category must be taken at UM-Missoula (only 3 if M 307 is taken at UM-Missoula).

<sup>2</sup> M 429 is also an advanced college writing course. Most Mathematics majors use M 429 to meet the advanced college writing general education requirement.

<sup>3</sup> Students completing a minor in another subject or a second major are exempt from this requirement. Transfer courses listed on the transcript as CSCI TR\* may include course work in other areas such as Computer Applications (CAPP) and therefore do not count towards this requirement unless a student successfully petitions the Department of Mathematical Sciences.

<sup>4</sup> Students completing a second major are exempt from this requirement.

| Code                                                                                                                                                                                                       | Title                          | Hours |
|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|--------------------------------|-------|
| <b>Elective Computer Labs and Independent Study Courses</b>                                                                                                                                                |                                |       |
| Computer labs and independent study courses from the following list are optional; if taken (0-2 credits), they count toward the total number of credits required for the Mathematics Elective requirement. |                                |       |
| M 363                                                                                                                                                                                                      | Linear Optimization Laboratory |       |
| M 392                                                                                                                                                                                                      | Independent Study              |       |
| M 492                                                                                                                                                                                                      | Independent Study              |       |
| STAT 457                                                                                                                                                                                                   | Computer Data Analysis I       |       |
| STAT 458                                                                                                                                                                                                   | Computer Data Analysis II      |       |

## Four Year Plan

| Course            | Title                                 | Hours     |
|-------------------|---------------------------------------|-----------|
| <b>Freshman</b>   |                                       |           |
| <b>Autumn</b>     |                                       |           |
| M 171             | Calculus I                            | 4         |
| Science Elective  |                                       | 3         |
| General Education |                                       | 6         |
| HUSC 194          | Seminar/Workshop                      | 1         |
| <b>Hours</b>      |                                       | <b>14</b> |
| <b>Spring</b>     |                                       |           |
| M 172             | Calculus II                           | 4         |
| M 210             | Introduction to Mathematical Software | 3         |
| Science Elective  |                                       | 3         |
| General Education |                                       | 6         |
| <b>Hours</b>      |                                       | <b>16</b> |
| <b>Sophomore</b>  |                                       |           |
| <b>Autumn</b>     |                                       |           |
| M 221             | Introduction to Linear Algebra        | 4         |
| M 273             | Multivariable Calculus                | 4         |
| Science Elective  |                                       | 3         |
| General Education |                                       | 3         |
| <b>Hours</b>      |                                       | <b>14</b> |
| <b>Spring</b>     |                                       |           |
| M 307             | Introduction to Abstract Mathematics  | 3         |
| Science Elective  |                                       | 3         |
| General Education |                                       | 9         |
| <b>Hours</b>      |                                       | <b>15</b> |
| <b>Junior</b>     |                                       |           |
| <b>Autumn</b>     |                                       |           |
| M 300             | Undergraduate Mathematics Seminar     | 1         |

|             |                                                                                  |   |
|-------------|----------------------------------------------------------------------------------|---|
| M 274       | Introduction to Differential Equations (Math Elective 300+)                      | 6 |
| or M 301    | or Teaching Mathematics with Technology                                          |   |
| or M 325    | or                                                                               |   |
| or M 326    | or Number Theory                                                                 |   |
| or M 361    | or Discrete Optimization                                                         |   |
| or M 362    | or Linear Optimization                                                           |   |
| or M 381    | or Advanced Calculus                                                             |   |
| or M 412    | or Partial Differential Equations                                                |   |
| or M 414    | or Deterministic Models                                                          |   |
| or M 429    | or History of Mathematics                                                        |   |
| or M 431    | or Abstract Algebra I                                                            |   |
| or M 432    | or Abstract Algebra II                                                           |   |
| or M 439    | or Euclidean and NonEuclidean Geometry                                           |   |
| or M 440    | or Numerical Analysis                                                            |   |
| or M 445    | or                                                                               |   |
| or M 461    | or Data Science Analytics                                                        |   |
| or M 462    | or Theoretical Basics of Big Data Analytics and Real Time Computation Algorithms |   |
| or M 472    | or Introduction to Complex Analysis                                              |   |
| or M 473    | or Introduction to Real Analysis                                                 |   |
| or M 485    | or Graph Theory                                                                  |   |
| or STAT 342 | or Probability and Simulation                                                    |   |
| or STAT 421 | or Probability Theory                                                            |   |
| or STAT 422 | or Mathematical Statistics                                                       |   |
| or STAT 452 | or Statistical Methods II                                                        |   |

|                  |           |
|------------------|-----------|
| Science Elective | 3         |
| Elective         | 6         |
| <b>Hours</b>     | <b>16</b> |

|               |                                                                                  |   |
|---------------|----------------------------------------------------------------------------------|---|
| <b>Spring</b> |                                                                                  |   |
| M 274         | Introduction to Differential Equations (Math Elective 300+)                      | 6 |
| or M 301      | or Teaching Mathematics with Technology                                          |   |
| or M 325      | or                                                                               |   |
| or M 326      | or Number Theory                                                                 |   |
| or M 361      | or Discrete Optimization                                                         |   |
| or M 362      | or Linear Optimization                                                           |   |
| or M 381      | or Advanced Calculus                                                             |   |
| or M 412      | or Partial Differential Equations                                                |   |
| or M 414      | or Deterministic Models                                                          |   |
| or M 429      | or History of Mathematics                                                        |   |
| or M 431      | or Abstract Algebra I                                                            |   |
| or M 432      | or Abstract Algebra II                                                           |   |
| or M 439      | or Euclidean and NonEuclidean Geometry                                           |   |
| or M 440      | or Numerical Analysis                                                            |   |
| or M 445      | or                                                                               |   |
| or M 461      | or Data Science Analytics                                                        |   |
| or M 462      | or Theoretical Basics of Big Data Analytics and Real Time Computation Algorithms |   |
| or M 472      | or Introduction to Complex Analysis                                              |   |
| or M 473      | or Introduction to Real Analysis                                                 |   |
| or M 485      | or Graph Theory                                                                  |   |
| or STAT 342   | or Probability and Simulation                                                    |   |
| or STAT 421   | or Probability Theory                                                            |   |
| or STAT 422   | or Mathematical Statistics                                                       |   |
| or STAT 452   | or Statistical Methods II                                                        |   |

|                  |           |
|------------------|-----------|
| Science Elective | 3         |
| Elective         | 6         |
| <b>Hours</b>     | <b>15</b> |

**Senior****Autumn**

|              |                                                                                  |              |
|--------------|----------------------------------------------------------------------------------|--------------|
| M 274        | Introduction to Differential Equations (Math Elective 300+)                      | 3 or 4       |
| or M 301     | or Teaching Mathematics with Technology                                          |              |
| or M 325     | or                                                                               |              |
| or M 326     | or Number Theory                                                                 |              |
| or M 361     | or Discrete Optimization                                                         |              |
| or M 362     | or Linear Optimization                                                           |              |
| or M 381     | or Advanced Calculus                                                             |              |
| or M 412     | or Partial Differential Equations                                                |              |
| or M 414     | or Deterministic Models                                                          |              |
| or M 429     | or History of Mathematics                                                        |              |
| or M 431     | or Abstract Algebra I                                                            |              |
| or M 432     | or Abstract Algebra II                                                           |              |
| or M 439     | or Euclidean and NonEuclidean Geometry                                           |              |
| or M 440     | or Numerical Analysis                                                            |              |
| or M 445     | or                                                                               |              |
| or M 461     | or Data Science Analytics                                                        |              |
| or M 462     | or Theoretical Basics of Big Data Analytics and Real Time Computation Algorithms |              |
| or M 472     | or Introduction to Complex Analysis                                              |              |
| or M 473     | or Introduction to Real Analysis                                                 |              |
| or M 485     | or Graph Theory                                                                  |              |
| or STAT 342  | or Probability and Simulation                                                    |              |
| or STAT 421  | or Probability Theory                                                            |              |
| or STAT 422  | or Mathematical Statistics                                                       |              |
| or STAT 452  | or Statistical Methods II                                                        |              |
| M 412        | Partial Differential Equations (Math Elective 400+)                              | 3            |
| or M 414     | or Deterministic Models                                                          |              |
| or M 429     | or History of Mathematics                                                        |              |
| or M 431     | or Abstract Algebra I                                                            |              |
| or M 432     | or Abstract Algebra II                                                           |              |
| or M 439     | or Euclidean and NonEuclidean Geometry                                           |              |
| or M 440     | or Numerical Analysis                                                            |              |
| or M 445     | or                                                                               |              |
| or M 461     | or Data Science Analytics                                                        |              |
| or M 462     | or Theoretical Basics of Big Data Analytics and Real Time Computation Algorithms |              |
| or M 472     | or Introduction to Complex Analysis                                              |              |
| or M 473     | or Introduction to Real Analysis                                                 |              |
| or M 485     | or Graph Theory                                                                  |              |
| or STAT 421  | or Probability Theory                                                            |              |
| or STAT 422  | or Mathematical Statistics                                                       |              |
| or STAT 452  | or Statistical Methods II                                                        |              |
| Elective     |                                                                                  | 9            |
| <b>Hours</b> |                                                                                  | <b>15-16</b> |

**Spring**

|                    |                                                                                  |                |
|--------------------|----------------------------------------------------------------------------------|----------------|
| M 412              | Partial Differential Equations (Math Elective 400+)                              | 6              |
| or M 414           | or Deterministic Models                                                          |                |
| or M 429           | or History of Mathematics                                                        |                |
| or M 431           | or Abstract Algebra I                                                            |                |
| or M 432           | or Abstract Algebra II                                                           |                |
| or M 439           | or Euclidean and NonEuclidean Geometry                                           |                |
| or M 440           | or Numerical Analysis                                                            |                |
| or M 445           | or                                                                               |                |
| or M 461           | or Data Science Analytics                                                        |                |
| or M 462           | or Theoretical Basics of Big Data Analytics and Real Time Computation Algorithms |                |
| or M 472           | or Introduction to Complex Analysis                                              |                |
| or M 473           | or Introduction to Real Analysis                                                 |                |
| or M 485           | or Graph Theory                                                                  |                |
| or STAT 421        | or Probability Theory                                                            |                |
| or STAT 422        | or Mathematical Statistics                                                       |                |
| or STAT 452        | or Statistical Methods II                                                        |                |
| Elective           |                                                                                  | 9              |
| <b>Hours</b>       |                                                                                  | <b>15</b>      |
| <b>Total Hours</b> |                                                                                  | <b>120-121</b> |

Last updated Autumn 2025

This degree template can be adapted for students who are not ready to take M 171 (Calculus I) in their first semester.

Up to 12 of the 18 credits in Science Electives can be replaced by a minor or a second major.

Student can add a concentration in Applied Mathematics (p. 360), Combinatorics & Optimization (p. 362), Pure Mathematics (p. 365) or Statistics & Data Science (p. 366) by choosing part of their Math Electives from the chosen area. Students interested in Mathematics Education must follow the degree template for Mathematics Education (p. 363).

Details regarding the Math and Science Electives are in the Catalog and on Degree Works. Choose these courses in consultation with your math advisor.

Details regarding the General Education course work are in the Catalog and on Degree Works. Choose these courses in consultation with an advisor. In particular, take WRIT 101 as early as possible.

Students not completing the General Education language requirement must take one of several computer sciences courses as part of their Science Electives.

39 upper-division (300+ course) credits are required.

## Mathematics B.A. - Applied Mathematics

This degree concentration differs from the BA in Mathematics without a concentration only in the Concentration Requirements.

### General Degree Requirements

To earn a baccalaureate degree, all students must complete successfully, in addition to any other requirements, the University of Montana General Education Requirements. Please refer to the General Education Requirements page (p. 39) for more information.

Additional requirements for graduation can be found on the Degree/Certificate Requirements for Graduation page (p. 36).

Unless otherwise noted in individual program requirements, a minimum grade point average of 2.00 in all work attempted at the University of Montana-Missoula is required for graduation. Please see the Academic Policies and Procedures page (p. 25) for information on how your GPA is calculated.

Courses taken to satisfy the requirements of a major, minor, or certificate program must be completed with a grade of C- or better unless a higher grade is noted in the program requirements.

### Bachelor of Arts - Mathematics; Applied Mathematics Concentration Credit Requirements

The major specific credits are much lower for double-majors and for students completing a minor in another subject:

- 42 credits for students completing a second major, and
- 46 credits for students completing a minor.



## GPA Requirement

- A cumulative GPA of 2.0 is required for all courses used to fulfill major requirements.
- In addition, a cumulative GPA of 2.0 is required for all mathematical sciences courses used to fulfill major requirements. (Mathematical sciences courses are those with a prefix of M or STAT.)

## Course Requirements

| Code                                                                                                                                                                  | Title                                                                         | Hours |
|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------|-------------------------------------------------------------------------------|-------|
| <b>Core Courses</b>                                                                                                                                                   |                                                                               |       |
| Complete all of the following courses:                                                                                                                                |                                                                               |       |
| M 171<br>or M 181                                                                                                                                                     | Calculus I                                                                    | 4     |
| M 172<br>or M 182                                                                                                                                                     | Calculus II                                                                   | 4     |
| M 210                                                                                                                                                                 | Introduction to Mathematical Software                                         | 3     |
| M 221                                                                                                                                                                 | Introduction to Linear Algebra                                                | 4     |
| M 273                                                                                                                                                                 | Multivariable Calculus                                                        | 4     |
| M 300                                                                                                                                                                 | Undergraduate Mathematics Seminar                                             | 1     |
| M 307                                                                                                                                                                 | Introduction to Abstract Mathematics                                          | 3     |
| <b>Electives</b> <sup>1</sup>                                                                                                                                         |                                                                               |       |
| Complete 18-23 credits (6-7 courses) of the following courses. At least three courses must be at the 400 level. See note below about the elective credit requirement. |                                                                               | 18-23 |
| M 274                                                                                                                                                                 | Introduction to Differential Equations                                        |       |
| M 301                                                                                                                                                                 | Teaching Mathematics with Technology                                          |       |
| M 325                                                                                                                                                                 |                                                                               |       |
| M 326                                                                                                                                                                 | Number Theory                                                                 |       |
| M 361                                                                                                                                                                 | Discrete Optimization                                                         |       |
| M 362                                                                                                                                                                 | Linear Optimization                                                           |       |
| M 381                                                                                                                                                                 | Advanced Calculus                                                             |       |
| M 412                                                                                                                                                                 | Partial Differential Equations                                                |       |
| M 414                                                                                                                                                                 | Deterministic Models                                                          |       |
| M 429                                                                                                                                                                 | History of Mathematics <sup>2</sup>                                           |       |
| M 431                                                                                                                                                                 | Abstract Algebra I                                                            |       |
| M 432                                                                                                                                                                 | Abstract Algebra II                                                           |       |
| M 439                                                                                                                                                                 | Euclidean and NonEuclidean Geometry                                           |       |
| M 440                                                                                                                                                                 | Numerical Analysis                                                            |       |
| M 445                                                                                                                                                                 |                                                                               |       |
| M 461                                                                                                                                                                 | Data Science Analytics                                                        |       |
| M 462                                                                                                                                                                 | Theoretical Basics of Big Data Analytics and Real Time Computation Algorithms |       |
| M 472                                                                                                                                                                 | Introduction to Complex Analysis                                              |       |
| M 473                                                                                                                                                                 | Introduction to Real Analysis                                                 |       |
| M 485                                                                                                                                                                 | Graph Theory                                                                  |       |
| STAT 342                                                                                                                                                              | Probability and Simulation                                                    |       |
| STAT 421                                                                                                                                                              | Probability Theory                                                            |       |
| STAT 422                                                                                                                                                              | Mathematical Statistics                                                       |       |
| STAT 452                                                                                                                                                              | Statistical Methods II                                                        |       |
| <b>Science Requirement</b> <sup>3</sup>                                                                                                                               |                                                                               |       |

Complete 18 credits in at most 3 areas selected from astronomy (ASTR), biology (BIO\*), chemistry (CHMY), computer science (CSCI, except CSCI TR\*), economics (ECNS), forestry (FORS, WILD), geosciences (GEO), management information systems (BMIS), and physics (PHSX).

### Language/Computer Science Requirement<sup>4</sup>

Complete either the General Education Language Requirement or complete one of the following courses:

|          |                                       |
|----------|---------------------------------------|
| CSCI 150 | Introduction to Computer Science      |
| CSCI 151 | Interdisciplinary Computer Science I  |
| CSCI 152 | Interdisciplinary Computer Science II |

### Applied Mathematics Concentration

These courses count toward the mathematics electives requirement

#### Applied Mathematics Concentration Core Courses

Complete all of the following courses:

|       |                                        |
|-------|----------------------------------------|
| M 274 | Introduction to Differential Equations |
| M 412 | Partial Differential Equations         |

#### Applied Mathematics Concentration Elective Courses<sup>5</sup>

Complete two of the following courses:

|       |                                  |
|-------|----------------------------------|
| M 414 | Deterministic Models             |
| M 440 | Numerical Analysis               |
| M 445 |                                  |
| M 472 | Introduction to Complex Analysis |

**Total Hours** **62-67**

<sup>1</sup> Students completing a second major need take only 18 credits. Students completing a minor in another subject need take only 20 credits. All other students must complete 23 credits and 7 courses. At least 4 of the courses in this category must be taken at UM-Missoula (only 3 if M 307 is taken at UM-Missoula).

<sup>2</sup> M 429 is also an advanced college writing course. Most Mathematics majors use M 429 to meet the advanced college writing general education requirement.

<sup>3</sup> Students completing a minor in another subject or a second major are exempt from this requirement. Transfer courses listed on the transcript as CSCI TR\* may include course work in other areas such as Computer Applications (CAPP) and therefore do not count towards this requirement unless a student successfully petitions the Department of Mathematical Sciences.

<sup>4</sup> Students completing a second major are exempt from this requirement.

<sup>5</sup> In addition, M 381 and M 485 are also recommended.

| Code                                                                                                                                                                                                       | Title                          | Hours |
|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|--------------------------------|-------|
| <b>Elective Computer Labs and Independent Study Courses</b>                                                                                                                                                |                                |       |
| Computer labs and independent study courses from the following list are optional; if taken (0-2 credits), they count toward the total number of credits required for the Mathematics Elective requirement. |                                |       |
| M 363                                                                                                                                                                                                      | Linear Optimization Laboratory |       |
| M 392                                                                                                                                                                                                      | Independent Study              |       |
| M 492                                                                                                                                                                                                      | Independent Study              |       |
| STAT 457                                                                                                                                                                                                   | Computer Data Analysis I       |       |
| STAT 458                                                                                                                                                                                                   | Computer Data Analysis II      |       |

# Mathematics B.A. - Combinatorics and Optimization

This degree concentration differs from the BA in Mathematics without a concentration only in the Concentration Requirements.

## General Degree Requirements

To earn a baccalaureate degree, all students must complete successfully, in addition to any other requirements, the University of Montana General Education Requirements. Please refer to the General Education Requirements page (p. 39) for more information.

Additional requirements for graduation can be found on the Degree/Certificate Requirements for Graduation page (p. 36).

Unless otherwise noted in individual program requirements, a minimum grade point average of 2.00 in all work attempted at the University of Montana-Missoula is required for graduation. Please see the Academic Policies and Procedures page (p. 25) for information on how your GPA is calculated.

Courses taken to satisfy the requirements of a major, minor, or certificate program must be completed with a grade of C- or better unless a higher grade is noted in the program requirements.

## Bachelor of Arts - Mathematics; Combinatorics and Optimization Concentration

### Credit Requirements

The major specific credits are much lower for double-majors and for students completing a minor in another subject:

- 41 credits for students completing a second major, and
- 46 credits for students completing a minor.

### GPA Requirement

- A cumulative GPA of 2.0 is required for all courses used to fulfill major requirements.
- In addition, a cumulative GPA of 2.0 is required for all mathematical sciences courses used to fulfill major requirements. (Mathematical sciences courses are those with a prefix of M or STAT.)

### Course Requirements

| Code                                   | Title                                 | Hours |
|----------------------------------------|---------------------------------------|-------|
| Core Courses                           |                                       |       |
| Complete all of the following courses: |                                       |       |
| M 171<br>or M 181                      | Calculus I                            | 4     |
| M 172<br>or M 182                      | Calculus II                           | 4     |
| M 210                                  | Introduction to Mathematical Software | 3     |
| M 221                                  | Introduction to Linear Algebra        | 4     |
| M 273                                  | Multivariable Calculus                | 4     |
| M 300                                  | Undergraduate Mathematics Seminar     | 1     |
| M 307                                  | Introduction to Abstract Mathematics  | 3     |
| Electives <sup>1</sup>                 |                                       |       |

Complete 18-23 credits (6-7 courses) of the following courses. 18-23  
At least three courses must be at the 400 level. See note below about the elective credit requirement.

|          |                                                                               |
|----------|-------------------------------------------------------------------------------|
| M 274    | Introduction to Differential Equations                                        |
| M 301    | Teaching Mathematics with Technology                                          |
| M 325    |                                                                               |
| M 326    | Number Theory                                                                 |
| M 361    | Discrete Optimization                                                         |
| M 362    | Linear Optimization                                                           |
| M 381    | Advanced Calculus                                                             |
| M 412    | Partial Differential Equations                                                |
| M 414    | Deterministic Models                                                          |
| M 429    | History of Mathematics <sup>2</sup>                                           |
| M 431    | Abstract Algebra I                                                            |
| M 432    | Abstract Algebra II                                                           |
| M 439    | Euclidean and NonEuclidean Geometry                                           |
| M 440    | Numerical Analysis                                                            |
| M 445    |                                                                               |
| M 461    | Data Science Analytics                                                        |
| M 462    | Theoretical Basics of Big Data Analytics and Real Time Computation Algorithms |
| M 472    | Introduction to Complex Analysis                                              |
| M 473    | Introduction to Real Analysis                                                 |
| M 485    | Graph Theory                                                                  |
| STAT 342 | Probability and Simulation                                                    |
| STAT 421 | Probability Theory                                                            |
| STAT 422 | Mathematical Statistics                                                       |
| STAT 452 | Statistical Methods II                                                        |

### Science Requirement <sup>3</sup>

Complete 18 credits in at most 3 areas selected from astronomy (ASTR), biology (BIO\*), chemistry (CHMY), computer science (CSCI, except CSCI TR\*), economics (ECNS), forestry (FORS, WILD), geosciences (GEO), management information systems (BMIS), and physics (PHSX). 18

### Language/Computer Science Requirement <sup>4</sup>

Complete either the General Education Language Requirement or complete one of the following courses: 3

|          |                                       |
|----------|---------------------------------------|
| CSCI 150 | Introduction to Computer Science      |
| CSCI 151 | Interdisciplinary Computer Science I  |
| CSCI 152 | Interdisciplinary Computer Science II |

### Combinatorics & Optimization Concentration

These courses count toward the mathematics electives requirement

#### Combinatorics & Optimization Concentration Core Courses

|                                        |                       |
|----------------------------------------|-----------------------|
| Complete all of the following courses: |                       |
| M 361                                  | Discrete Optimization |
| M 362                                  | Linear Optimization   |
| M 485                                  | Graph Theory          |

#### Combinatorics & Optimization Concentration Elective Courses

|                                        |                                         |
|----------------------------------------|-----------------------------------------|
| Complete one of the following courses: |                                         |
| CSCI 332                               | Advanced Data Structures and Algorithms |
| M 414                                  | Deterministic Models                    |

|                    |                            |
|--------------------|----------------------------|
| M 440              | Numerical Analysis         |
| STAT 342           | Probability and Simulation |
| <hr/>              |                            |
| <b>Total Hours</b> | <b>62-67</b>               |

- <sup>1</sup> Students completing a second major need take only 18 credits. Students completing a minor in another subject need take only 20 credits. All other students must complete 23 credits and 7 courses. At least 4 of the courses in this category must be taken at UM-Missoula (only 3 if M 307 is taken at UM-Missoula).
- <sup>2</sup> M 429 is also an advanced college writing course. Most Mathematics majors use M 429 to meet the advanced college writing general education requirement.
- <sup>3</sup> Students completing a minor in another subject or a second major are exempt from this requirement. Transfer courses listed on the transcript as CSCI TR\* may include course work in other areas such as Computer Applications (CAPP) and therefore do not count towards this requirement unless a student successfully petitions the Department of Mathematical Sciences.
- <sup>4</sup> Students completing a second major are exempt from this requirement.

| Code                                                                                                                                                                                                       | Title                          | Hours |
|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|--------------------------------|-------|
| <b>Elective Computer Labs and Independent Study Courses</b>                                                                                                                                                |                                |       |
| Computer labs and independent study courses from the following list are optional; if taken (0-2 credits), they count toward the total number of credits required for the Mathematics Elective requirement. |                                |       |
| M 363                                                                                                                                                                                                      | Linear Optimization Laboratory |       |
| M 392                                                                                                                                                                                                      | Independent Study              |       |
| M 492                                                                                                                                                                                                      | Independent Study              |       |
| STAT 457                                                                                                                                                                                                   | Computer Data Analysis I       |       |
| STAT 458                                                                                                                                                                                                   | Computer Data Analysis II      |       |

## Mathematics B.A. - Mathematics Education

Individuals interested in teaching in K-12 schools must complete a degree in the content area they want to teach plus the Teacher Education Program through the Department of Teaching and Learning. Individuals must complete the teaching track within that degree program, which may contain different course requirements than the non-teaching track since the sequence of courses is designed to meet state standards. Upon completion of the degree program with the teaching track and the secondary licensure program, one will be eligible for a standard Montana teaching license in this content area.

- Secondary Education Licensure Program (<https://www.umt.edu/education/departments/teaching-and-learning/tep/>)
- Licensure Degree Requirements (p. 151)

## General Degree Requirements

To earn a baccalaureate degree, all students must complete successfully, in addition to any other requirements, the University of Montana General Education Requirements. Please refer to the General Education Requirements page (p. 39) for more information.

Additional requirements for graduation can be found on the Degree/Certificate Requirements for Graduation page (p. 36).

Unless otherwise noted in individual program requirements, a minimum grade point average of 2.00 in all work attempted at the University of Montana-Missoula is required for graduation. Please see the Academic Policies and Procedures page (p. 25) for information on how your GPA is calculated.

Courses taken to satisfy the requirements of a major, minor, or certificate program must be completed with a grade of C- or better unless a higher grade is noted in the program requirements.

## Bachelor of Arts - Mathematics; Mathematics Education Concentration

- The number of degree specific credits required is significantly higher if one also counts the additional course work required by the Teacher Education Program.
- Note that the Teacher Education Program requires in addition an overall cumulative GPA of at least 2.75
- Residency Requirement: At least four of the upper-division mathematics courses must be taken at UM-Missoula.

### Course Requirements

| Code                                   | Title                                                                         | Hours |
|----------------------------------------|-------------------------------------------------------------------------------|-------|
| <b>Core Courses</b>                    |                                                                               |       |
| Complete all of the following courses: |                                                                               |       |
| M 171<br>or M 181                      | Calculus I                                                                    | 4     |
| M 172<br>or M 182                      | Calculus II                                                                   | 4     |
| M 221                                  | Introduction to Linear Algebra                                                | 4     |
| M 301                                  | Teaching Mathematics with Technology                                          | 3     |
| M 307                                  | Introduction to Abstract Mathematics                                          | 3     |
| M 326                                  | Number Theory                                                                 | 3     |
| M 429                                  | History of Mathematics <sup>1</sup>                                           | 3     |
| M 431                                  | Abstract Algebra I                                                            | 4     |
| M 439                                  | Euclidean and NonEuclidean Geometry                                           | 3     |
| STAT 342<br>or STAT 451                | Probability and Simulation <sup>2</sup><br>Statistical Methods I              | 3     |
| <b>Elective</b>                        |                                                                               |       |
| Complete one of the following courses: |                                                                               | 3-4   |
| M 273                                  | Multivariable Calculus                                                        |       |
| M 274                                  | Introduction to Differential Equations                                        |       |
| M 325                                  |                                                                               |       |
| M 361                                  | Discrete Optimization                                                         |       |
| M 362                                  | Linear Optimization                                                           |       |
| M 381                                  | Advanced Calculus                                                             |       |
| M 412                                  | Partial Differential Equations                                                |       |
| M 414                                  | Deterministic Models                                                          |       |
| M 432                                  | Abstract Algebra II                                                           |       |
| M 440                                  | Numerical Analysis                                                            |       |
| M 445                                  |                                                                               |       |
| M 461                                  | Data Science Analytics                                                        |       |
| M 462                                  | Theoretical Basics of Big Data Analytics and Real Time Computation Algorithms |       |
| M 472                                  | Introduction to Complex Analysis                                              |       |

|                                                                                                                                                                                                                                                                             |                                                      |              |
|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|------------------------------------------------------|--------------|
| M 473                                                                                                                                                                                                                                                                       | Introduction to Real Analysis                        |              |
| M 485                                                                                                                                                                                                                                                                       | Graph Theory                                         |              |
| STAT 421                                                                                                                                                                                                                                                                    | Probability Theory                                   |              |
| STAT 422                                                                                                                                                                                                                                                                    | Mathematical Statistics                              |              |
| STAT 451                                                                                                                                                                                                                                                                    | Statistical Methods I <sup>2</sup>                   |              |
| STAT 452                                                                                                                                                                                                                                                                    | Statistical Methods II                               |              |
| <b>Mathematics Teaching Methods Course</b>                                                                                                                                                                                                                                  |                                                      |              |
| Complete the following course:                                                                                                                                                                                                                                              |                                                      |              |
| EDU 497                                                                                                                                                                                                                                                                     | Teaching and Assessing (Methods: 5 - 12 Mathematics) | 4            |
| <b>Student Teaching Requirement for the Mathematics Education Concentration</b>                                                                                                                                                                                             |                                                      |              |
| Complete the following course:                                                                                                                                                                                                                                              |                                                      |              |
| EDU 495                                                                                                                                                                                                                                                                     | Student Teaching                                     | 14           |
| <b>Science Requirement for the Mathematics Education Concentration <sup>3</sup></b>                                                                                                                                                                                         |                                                      |              |
| Complete 12 credits in at most two areas selected from astronomy (ASTR), biology (BIO*), chemistry (CHMY), computer science (CSCI, except CSCI TR*), economics (ECNS), forestry (FORS, WILD), geosciences (GEO), management information systems (BMIS), and physics (PHSX). |                                                      | 12           |
| <b>Total Hours</b>                                                                                                                                                                                                                                                          |                                                      | <b>67-68</b> |

<sup>1</sup> M 429 satisfies the Advanced Writing Requirement for this major.

<sup>2</sup> STAT 451 may not count as both a Core and Elective course.

<sup>3</sup> Students completing a minor in another subject or a second major are exempt from this requirement. Transfer courses listed on the transcript as "CSCI TR\*" may include course work in other areas such as Computer Applications (CAPP) and therefore do not count towards this requirement unless a student successfully petitions the Department of Mathematical Sciences.

## Secondary Teaching Licensure

For endorsement to teach this subject, a student also must gain admission to the Teacher Education Program and meet all the requirements for secondary teaching licensure (p. 151). For more information, see the Teaching and Learning Department webpage (<https://www.umt.edu/education/departments/currinst/default.php>).

## Four Year Plan

| Course                        | Title                                                                                                           | Hours        |
|-------------------------------|-----------------------------------------------------------------------------------------------------------------|--------------|
| <b>Freshman</b>               |                                                                                                                 |              |
| <b>Autumn</b>                 |                                                                                                                 |              |
| M 171                         | Calculus I                                                                                                      | 4            |
| COMX 111A<br>or WRIT 101      | Introduction to Public Speaking (WRIT 101 required, COMX 111A recommended) <sup>1</sup><br>or College Writing I | 3-4          |
| NASX 105H                     | Introduction to Native American Studies                                                                         | 3            |
| HUSC 194                      | Seminar/Workshop                                                                                                | 1            |
| Science Elective <sup>2</sup> |                                                                                                                 | 3            |
| Elective                      |                                                                                                                 | 1            |
| <b>Hours</b>                  |                                                                                                                 | <b>15-16</b> |
| <b>Spring</b>                 |                                                                                                                 |              |
| M 172                         | Calculus II                                                                                                     | 4            |

|                               |                                                                                                                 |                |
|-------------------------------|-----------------------------------------------------------------------------------------------------------------|----------------|
| WRIT 101<br>or COMX 111A      | College Writing I (WRIT 101 required, COMX 111A recommended) <sup>1</sup><br>or Introduction to Public Speaking | 3-4            |
| EDU 222                       | Educational Psychology and Child Development                                                                    | 3              |
| Science Elective <sup>2</sup> |                                                                                                                 | 3              |
| Elective                      |                                                                                                                 | 2              |
| <b>Hours</b>                  |                                                                                                                 | <b>15-16</b>   |
| <b>Sophomore</b>              |                                                                                                                 |                |
| <b>Autumn</b>                 |                                                                                                                 |                |
| M 221                         | Introduction to Linear Algebra                                                                                  | 4              |
| M 301                         | Teaching Mathematics with Technology (or Math Elective) <sup>2</sup>                                            | 3              |
| Science Elective <sup>2</sup> |                                                                                                                 | 3              |
| LIT 110L                      | Introduction to Literature <sup>1</sup>                                                                         | 3              |
| Elective                      |                                                                                                                 | 1              |
| <b>Hours</b>                  |                                                                                                                 | <b>14</b>      |
| <b>Spring</b>                 |                                                                                                                 |                |
| M 307                         | Introduction to Abstract Mathematics                                                                            | 3              |
| Science Elective <sup>2</sup> |                                                                                                                 | 3              |
| HSTA 102H                     | American History II <sup>1</sup>                                                                                | 4              |
| Elective                      |                                                                                                                 | 6              |
| <b>Hours</b>                  |                                                                                                                 | <b>16</b>      |
| <b>Junior</b>                 |                                                                                                                 |                |
| <b>Autumn</b>                 |                                                                                                                 |                |
| M 301                         | Teaching Mathematics with Technology (or Math Elective) <sup>2</sup>                                            | 3              |
| STAT 342<br>or STAT 451       | Probability and Simulation<br>or Statistical Methods I                                                          | 3              |
| EDU 382                       | Assessment, Curriculum, & Instruction                                                                           | 3              |
| EDU 346                       | Addressing the Needs of Diverse Learners                                                                        | 3              |
| Elective                      |                                                                                                                 | 3              |
| <b>Hours</b>                  |                                                                                                                 | <b>15</b>      |
| <b>Spring</b>                 |                                                                                                                 |                |
| M 326                         | Number Theory                                                                                                   | 3              |
| M 429                         | History of Mathematics                                                                                          | 3              |
| EDU 481                       | Content Area Literacy                                                                                           | 3              |
| EDU 444                       | Classroom Management in Secondary Schools                                                                       | 3              |
| EDU 395                       | Clinical Experience                                                                                             | 1              |
| Elective                      |                                                                                                                 | 3              |
| <b>Hours</b>                  |                                                                                                                 | <b>16</b>      |
| <b>Senior</b>                 |                                                                                                                 |                |
| <b>Autumn</b>                 |                                                                                                                 |                |
| M 431                         | Abstract Algebra I                                                                                              | 4              |
| M 439                         | Euclidean and NonEuclidean Geometry                                                                             | 3              |
| EDU 407E                      | Ethics & Policy Issues                                                                                          | 3              |
| EDU 395                       | Clinical Experience (K-12 II)                                                                                   | 1              |
| EDU 497                       | Teaching and Assessing (Methods: 5 - 12 Mathematics)                                                            | 3              |
| <b>Hours</b>                  |                                                                                                                 | <b>14</b>      |
| <b>Spring</b>                 |                                                                                                                 |                |
| EDU 494                       | Seminar                                                                                                         | 1              |
| EDU 495                       | Student Teaching                                                                                                | 14             |
| <b>Hours</b>                  |                                                                                                                 | <b>15</b>      |
| <b>Total Hours</b>            |                                                                                                                 | <b>120-122</b> |

*Last updated Autumn 2025*

It is recommended that you apply to the Teacher Education Program at the start of Year 2 (since admission to the TEP is required before you can take EDU courses). Discuss this with your Math Faculty Mentor in the Spring of Year 1

<sup>1</sup> Recommended but not required. To ensure that you meet all relevant requirements, replace them only after consultation with your math advisor.

<sup>2</sup> Details regarding the Math and Science Electives are in the Catalog and on Degree Works. Choose these courses in consultation with your math advisor.

## Mathematics B.A. - Pure Mathematics

This degree concentration differs from the BA in Mathematics without a concentration only in the Concentration Requirements.

### General Graduate Program Requirements

Graduate School policies and standards can be found on the Graduate School Policies page (p. 440).

The minimum GPA for any graduate program is 3.0. Individual programs may require more than a 3.0 to remain in good standing.

The minimum grade for a course to be accepted toward any master's or doctoral requirement is C. The minimum grade for a course to be accepted toward a certificate program is B-. Individual programs may require higher grades for specific courses.

## Bachelor of Arts - Mathematics; Pure Mathematics Concentration

### Credit Requirements

The major specific credits are much lower for double-majors and for students completing a minor in another subject:

- 44 credits for students completing a second major, and
- 47 credits for students completing a minor.

### GPA requirement

- A cumulative GPA of 2.0 is required for all courses used to fulfill major requirements.
- In addition, a cumulative GPA of 2.0 is required for all mathematical sciences courses used to fulfill major requirements. (Mathematical sciences courses are those with a prefix of M or STAT.)

### Course Requirements

| Code                                   | Title                                 | Hours |
|----------------------------------------|---------------------------------------|-------|
| <b>Core Courses</b>                    |                                       |       |
| Complete all of the following courses: |                                       |       |
| M 171<br>or M 181                      | Calculus I                            | 4     |
| M 172<br>or M 182                      | Calculus II                           | 4     |
| M 210                                  | Introduction to Mathematical Software | 3     |
| M 221                                  | Introduction to Linear Algebra        | 4     |
| M 273                                  | Multivariable Calculus                | 4     |
| M 300                                  | Undergraduate Mathematics Seminar     | 1     |
| M 307                                  | Introduction to Abstract Mathematics  | 3     |
| <b>Electives</b> <sup>1</sup>          |                                       |       |

Complete 18-23 credits (6-7 courses) of the following courses. 18-23  
At least three courses must be at the 400 level. See note below about the elective credit requirement.

|          |                                                                               |
|----------|-------------------------------------------------------------------------------|
| M 274    | Introduction to Differential Equations                                        |
| M 301    | Teaching Mathematics with Technology                                          |
| M 325    |                                                                               |
| M 326    | Number Theory                                                                 |
| M 361    | Discrete Optimization                                                         |
| M 362    | Linear Optimization                                                           |
| M 381    | Advanced Calculus                                                             |
| M 412    | Partial Differential Equations                                                |
| M 414    | Deterministic Models                                                          |
| M 429    | History of Mathematics <sup>2</sup>                                           |
| M 431    | Abstract Algebra I                                                            |
| M 432    | Abstract Algebra II                                                           |
| M 439    | Euclidean and NonEuclidean Geometry                                           |
| M 440    | Numerical Analysis                                                            |
| M 445    |                                                                               |
| M 461    | Data Science Analytics                                                        |
| M 462    | Theoretical Basics of Big Data Analytics and Real Time Computation Algorithms |
| M 472    | Introduction to Complex Analysis                                              |
| M 473    | Introduction to Real Analysis                                                 |
| M 485    | Graph Theory                                                                  |
| STAT 342 | Probability and Simulation                                                    |
| STAT 421 | Probability Theory                                                            |
| STAT 422 | Mathematical Statistics                                                       |
| STAT 452 | Statistical Methods II                                                        |

### Science Requirement<sup>3</sup>

Complete 18 credits in at most 3 areas selected from astronomy (ASTR), biology (BIO\*), chemistry (CHMY), computer science (CSCI, except CSCI TR\*), economics (ECNS), forestry (FORS, WILD), geosciences (GEO), management information systems (BMIS), and physics (PHSX). 18

### Language/Computer Science Requirement<sup>4</sup>

Complete either the General Education Language Requirement or complete one of the following courses: 3

|          |                                       |
|----------|---------------------------------------|
| CSCI 150 | Introduction to Computer Science      |
| CSCI 151 | Interdisciplinary Computer Science I  |
| CSCI 152 | Interdisciplinary Computer Science II |

### Pure Mathematics Concentration

These courses count toward the mathematics electives requirement

Complete four of the following courses:

|       |                                  |
|-------|----------------------------------|
| M 381 | Advanced Calculus                |
| M 431 | Abstract Algebra I               |
| M 432 | Abstract Algebra II              |
| M 472 | Introduction to Complex Analysis |
| M 473 | Introduction to Real Analysis    |

**Total Hours** 62-67

<sup>1</sup> Students completing a second major need take only 18 credits. Students completing a minor in another subject need take only 20



credits. All other students must complete 23 credits and 7 courses. At least 4 of the courses in this category must be taken at UM-Missoula (only 3 if M 307 is taken at UM-Missoula).

<sup>2</sup> M 429 is also an advanced college writing course. Most Mathematics majors use M 429 to meet the advanced college writing general education requirement.

<sup>3</sup> Students completing a minor in another subject or a second major are exempt from this requirement. Transfer courses listed on the transcript as CSCI TR\* may include course work in other areas such as Computer Applications (CAPP) and therefore do not count towards this requirement unless a student successfully petitions the Department of Mathematical Sciences.

<sup>4</sup> Students completing a second major are exempt from this requirement.

| Code                                                                                                                                                                                                       | Title                          | Hours |
|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|--------------------------------|-------|
| <b>Elective Computer Labs and Independent Study Courses</b>                                                                                                                                                |                                |       |
| Computer labs and independent study courses from the following list are optional; if taken (0-2 credits), they count toward the total number of credits required for the Mathematics Elective requirement. |                                |       |
| M 363                                                                                                                                                                                                      | Linear Optimization Laboratory |       |
| M 392                                                                                                                                                                                                      | Independent Study              |       |
| M 492                                                                                                                                                                                                      | Independent Study              |       |
| STAT 457                                                                                                                                                                                                   | Computer Data Analysis I       |       |
| STAT 458                                                                                                                                                                                                   | Computer Data Analysis II      |       |

## Mathematics B.A. - Statistics and Data Science

This degree concentration differs from the BA in Mathematics without a concentration only in the Concentration Requirements.

### General Degree Requirements

To earn a baccalaureate degree, all students must complete successfully, in addition to any other requirements, the University of Montana General Education Requirements. Please refer to the General Education Requirements page (p. 39) for more information.

Additional requirements for graduation can be found on the Degree/Certificate Requirements for Graduation page (p. 36).

Unless otherwise noted in individual program requirements, a minimum grade point average of 2.00 in all work attempted at the University of Montana-Missoula is required for graduation. Please see the Academic Policies and Procedures page (p. 25) for information on how your GPA is calculated.

Courses taken to satisfy the requirements of a major, minor, or certificate program must be completed with a grade of C- or better unless a higher grade is noted in the program requirements.

## Bachelor of Arts - Mathematics; Statistics Concentration

### Credit Requirements

The major specific credits are much lower for double-majors and for students completing a minor in another subject:

- 41 credits for students completing a second major, and
- 46 credits for students completing a minor.

### GPA requirement

- A cumulative GPA of 2.0 is required for all courses used to fulfill major requirements.
- In addition, a cumulative GPA of 2.0 is required for all mathematical sciences courses used to fulfill major requirements. (Mathematical sciences courses are those with a prefix of M or STAT.)

### Course Requirements

| Code                                                                                                   | Title                                                                         | Hours |
|--------------------------------------------------------------------------------------------------------|-------------------------------------------------------------------------------|-------|
| <b>Core Courses</b>                                                                                    |                                                                               |       |
| Complete all of the following courses:                                                                 |                                                                               |       |
| M 171                                                                                                  | Calculus I                                                                    | 4     |
| or M 181                                                                                               |                                                                               |       |
| M 172                                                                                                  | Calculus II                                                                   | 4     |
| or M 182                                                                                               |                                                                               |       |
| M 210                                                                                                  | Introduction to Mathematical Software                                         | 3     |
| M 221                                                                                                  | Introduction to Linear Algebra                                                | 4     |
| M 273                                                                                                  | Multivariable Calculus                                                        | 4     |
| M 300                                                                                                  | Undergraduate Mathematics Seminar                                             | 1     |
| M 307                                                                                                  | Introduction to Abstract Mathematics                                          | 3     |
| <b>Electives <sup>1</sup></b>                                                                          |                                                                               |       |
| Complete 18-23 credits (6-7 courses) of the following courses.                                         |                                                                               | 18-23 |
| At least three courses must be at the 400 level. See note below about the elective credit requirement. |                                                                               |       |
| M 274                                                                                                  | Introduction to Differential Equations                                        |       |
| M 301                                                                                                  | Teaching Mathematics with Technology                                          |       |
| M 325                                                                                                  |                                                                               |       |
| M 326                                                                                                  | Number Theory                                                                 |       |
| M 361                                                                                                  | Discrete Optimization                                                         |       |
| M 362                                                                                                  | Linear Optimization                                                           |       |
| M 381                                                                                                  | Advanced Calculus                                                             |       |
| M 412                                                                                                  | Partial Differential Equations                                                |       |
| M 414                                                                                                  | Deterministic Models                                                          |       |
| M 429                                                                                                  | History of Mathematics <sup>2</sup>                                           |       |
| M 431                                                                                                  | Abstract Algebra I                                                            |       |
| M 432                                                                                                  | Abstract Algebra II                                                           |       |
| M 439                                                                                                  | Euclidean and NonEuclidean Geometry                                           |       |
| M 440                                                                                                  | Numerical Analysis                                                            |       |
| M 445                                                                                                  |                                                                               |       |
| M 461                                                                                                  | Data Science Analytics                                                        |       |
| M 462                                                                                                  | Theoretical Basics of Big Data Analytics and Real Time Computation Algorithms |       |
| M 472                                                                                                  | Introduction to Complex Analysis                                              |       |
| M 473                                                                                                  | Introduction to Real Analysis                                                 |       |
| M 485                                                                                                  | Graph Theory                                                                  |       |
| STAT 342                                                                                               | Probability and Simulation                                                    |       |
| STAT 421                                                                                               | Probability Theory                                                            |       |
| STAT 422                                                                                               | Mathematical Statistics                                                       |       |
| STAT 452                                                                                               | Statistical Methods II                                                        |       |
| <b>Science Requirement <sup>3</sup></b>                                                                |                                                                               |       |

Complete 18 credits in at most 3 areas selected from astronomy (ASTR), biology (BIO\*), chemistry (CHMY), computer science (CSCI, except CSCI TR\*), economics (ECNS), forestry (FORS, WILD), geosciences (GEO), management information systems (BMIS), and physics (PHSX).

#### Language/Computer Science Requirement <sup>4</sup>

Complete either the General Education Language Requirement or complete one of the following courses:

|          |                                       |
|----------|---------------------------------------|
| CSCI 150 | Introduction to Computer Science      |
| CSCI 151 | Interdisciplinary Computer Science I  |
| CSCI 152 | Interdisciplinary Computer Science II |

#### Statistics and Data Science Concentration

These courses count toward the mathematics electives requirement

Complete four of the following courses: <sup>5</sup>

|          |                                                                               |
|----------|-------------------------------------------------------------------------------|
| M 461    | Data Science Analytics                                                        |
| M 462    | Theoretical Basics of Big Data Analytics and Real Time Computation Algorithms |
| STAT 342 | Probability and Simulation                                                    |
| STAT 421 | Probability Theory                                                            |
| STAT 422 | Mathematical Statistics                                                       |
| STAT 452 | Statistical Methods II                                                        |

**Total Hours**

**62-67**

<sup>1</sup> Students completing a second major need take only 18 credits. Students completing a minor in another subject need take only 20 credits. All other students must complete 23 credits and 7 courses. At least 4 of the courses in this category must be taken at UM-Missoula (only 3 if M 307 is taken at UM-Missoula).

<sup>2</sup> M 429 is also an advanced college writing course. Most Mathematics majors use M 429 to meet the advanced college writing general education requirement.

<sup>3</sup> Students completing a minor in another subject or a second major are exempt from this requirement. Transfer courses listed on the transcript as CSCI TR\* may include course work in other areas such as Computer Applications (CAPP) and therefore do not count towards this requirement unless a student successfully petitions the Department of Mathematical Sciences.

<sup>4</sup> Students completing a second major are exempt from this requirement.

<sup>5</sup> Additional mathematics and statistics courses chosen with advisor.

**Code** **Title** **Hours**

#### Elective Computer Labs and Independent Study Courses

Computer labs and independent study courses from the following list are optional; if taken (0-2 credits), they count toward the total number of credits required for the Mathematics Elective requirement.

|          |                                |
|----------|--------------------------------|
| M 363    | Linear Optimization Laboratory |
| M 392    | Independent Study              |
| M 492    | Independent Study              |
| STAT 457 | Computer Data Analysis I       |
| STAT 458 | Computer Data Analysis II      |

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## Mathematics Education Minor

- This minor contains course requirements designed to meet state standards. Those interested in teaching in K-12 schools must complete the education/teaching concentration of a major in a teaching content area plus the Teacher Education Program through the Department of Teaching and Learning. Additional teaching areas can be added through completion of the teaching track of a major or minor in that content area.
  - Secondary Education Licensure Program (<http://www.coehs.umd.edu/departments/currinst/undergradprograms/seced/default.php>)
  - Licensure Degree Requirements (p. 151)
- To complete this minor, you need to contact the Teaching and Learning Department. Approvals for this track must come from the Teaching and Learning Department.
- Individuals completing the this minor must also complete the education/teaching concentration of a major in another teaching content area.

## General Degree Requirements

To earn a baccalaureate degree, all students must complete successfully, in addition to any other requirements, the University of Montana General Education Requirements. Please refer to the General Education Requirements page (p. 39) for more information.

Additional requirements for graduation can be found on the Degree/Certificate Requirements for Graduation page (p. 36).

Unless otherwise noted in individual program requirements, a minimum grade point average of 2.00 in all work attempted at the University of Montana-Missoula is required for graduation. Please see the Academic Policies and Procedures page (p. 25) for information on how your GPA is calculated.

Courses taken to satisfy the requirements of a major, minor, or certificate program must be completed with a grade of C- or better unless a higher grade is noted in the program requirements.

## Minor - Mathematics Education

### Course Requirements

| Code                                   | Title                                               | Hours |
|----------------------------------------|-----------------------------------------------------|-------|
| <b>Core Courses</b>                    |                                                     |       |
| Complete all of the following courses: |                                                     |       |
| M 171<br>or M 181                      | Calculus I                                          | 4     |
| M 172<br>or M 182                      | Calculus II                                         | 4     |
| M 221                                  | Introduction to Linear Algebra                      | 4     |
| M 301                                  | Teaching Mathematics with Technology                | 3     |
| M 307                                  | Introduction to Abstract Mathematics                | 3     |
| M 326                                  | Number Theory                                       | 3     |
| M 439                                  | Euclidean and NonEuclidean Geometry                 | 3     |
| STAT 342<br>or STAT 451                | Probability and Simulation<br>Statistical Methods I | 3     |

**Mathematics Teaching Methods Course**

|                    |                                                      |           |
|--------------------|------------------------------------------------------|-----------|
| EDU 497            | Teaching and Assessing (Methods: 5 - 12 Mathematics) | 3         |
| <b>Total Hours</b> |                                                      | <b>30</b> |

## Secondary Teaching Licensure

For endorsement to teach this subject, a student also must gain admission to the Teacher Education Program and meet all the requirements for secondary teaching licensure (p. 151). For more information, see the Teaching and Learning Department webpage (<https://www.umt.edu/education/departments/currinst/default.php>).

## Mathematics Minor

### General Degree Requirements

To earn a baccalaureate degree, all students must complete successfully, in addition to any other requirements, the University of Montana General Education Requirements. Please refer to the General Education Requirements page (p. 39) for more information.

Additional requirements for graduation can be found on the Degree/Certificate Requirements for Graduation page (p. 36).

Unless otherwise noted in individual program requirements, a minimum grade point average of 2.00 in all work attempted at the University of Montana-Missoula is required for graduation. Please see the Academic Policies and Procedures page (p. 25) for information on how your GPA is calculated.

Courses taken to satisfy the requirements of a major, minor, or certificate program must be completed with a grade of C- or better unless a higher grade is noted in the program requirements.

### Minor - Mathematics

- Notice to Transfer Students: Mathematical Sciences courses that are not equivalent to courses taught at UM-Missoula can often be counted toward a Minor in Mathematics. This is determined on an individual basis; please contact the Department of Mathematical Sciences for details.

### Course Requirements

| Code                                                                                                                                                                                                                                                                                                           | Title            | Hours     |
|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|------------------|-----------|
| <b>Calculus Requirements</b> <sup>1</sup>                                                                                                                                                                                                                                                                      |                  |           |
| Complete one of the following courses:                                                                                                                                                                                                                                                                         |                  | 4         |
| M 162                                                                                                                                                                                                                                                                                                          | Applied Calculus |           |
| M 172                                                                                                                                                                                                                                                                                                          | Calculus II      |           |
| M 182                                                                                                                                                                                                                                                                                                          |                  |           |
| <b>Elective Courses</b>                                                                                                                                                                                                                                                                                        |                  |           |
| Take 19 credits in M or STAT courses offered at UM-Missoula. M courses must be numbered M 115 or higher (excluding M 118). Courses must include at least three courses chosen from M 274 and 3- or 4-credit courses at the 300 level or above. At least two of the three courses must be taken at UM-Missoula. |                  | 19        |
| <b>Total Hours</b>                                                                                                                                                                                                                                                                                             |                  | <b>23</b> |

<sup>1</sup> M 172 or M 182 are recommended since they are prerequisites for many upper-division mathematics courses.

## Physics & Astronomy

Physics is considered to be the most fundamental of all disciplines in the natural sciences. In physics we try to describe and understand the myriad physical phenomena ranging from subatomic to cosmological scales by quantifying the relationships among different physical quantities. Not only does physics have its own merit as a challenging but exciting scientific endeavor, it provides the basis for understanding underlying processes in astronomy, biology, chemistry, geology, computer science, engineering, and even in behavioral sciences. Applications of physics are virtually unlimited: computers, communications, energy production, medical technology, and space flight, to name just a few. The Department of Physics and Astronomy offers a range of physics courses from introductory to advanced undergraduate level in both experimental and theoretical physics with computational methods in mind. In addition, we offer introductory to advanced astronomy and astrophysics courses in which astronomical applications of physics are emphasized. These courses deal with the Universe, from the solar system to clusters of galaxies, both theoretically and observationally. The Department of Physics and Astronomy offers the Bachelor of Arts degree with a major in Physics. Graduates with this degree are prepared for further study in physics or related fields at the masters or Ph.D. level, as well as a wide variety of technical positions in industry.

In addition, the department offers five concentrations that combine a solid background in the study of physics with in-depth study in other fields. These concentrations allow for specialization in related fields and provide appropriate background for certain employment opportunities and for continued graduate or professional study.

- Physics B.A. (p. 368)
- Physics B.A. - Astronomy (p. 370)
- Physics B.A. - Computational Physics (p. 371)
- Physics B.A. - Engineering Physics (p. 372)
- Physics B.A. - Physics Education (p. 374)
- Physics B.A. - Teaching Broadfield Science (p. 376)
- Astronomy Minor (p. 377)
- Physics Minor (p. 378)
- Physics Education Minor (p. 378)

## Physics B.A.

### General Degree Requirements

To earn a baccalaureate degree, all students must complete successfully, in addition to any other requirements, the University of Montana General Education Requirements. Please refer to the General Education Requirements page (p. 39) for more information.

Additional requirements for graduation can be found on the Degree/Certificate Requirements for Graduation page (p. 36).

Unless otherwise noted in individual program requirements, a minimum grade point average of 2.00 in all work attempted at the University of Montana-Missoula is required for graduation. Please see the Academic

Policies and Procedures page (p. 25) for information on how your GPA is calculated.

Courses taken to satisfy the requirements of a major, minor, or certificate program must be completed with a grade of C- or better unless a higher grade is noted in the program requirements.

## BACHELOR OF ARTS - PHYSICS

### Course Requirements

| Code                                             | Title                                                                                                                | Hours |
|--------------------------------------------------|----------------------------------------------------------------------------------------------------------------------|-------|
| <b>Lower-Division Physics</b>                    |                                                                                                                      |       |
| Complete one of the following Physics sequences: |                                                                                                                      | 10    |
| Algebra- and Trigonometry-based Physics:         |                                                                                                                      |       |
| PHSX 205N & PHSX 206N                            | College Physics I and College Physics I Laboratory                                                                   |       |
| PHSX 207N & PHSX 208N                            | College Physics II and College Physics II Laboratory                                                                 |       |
| Calculus-based Physics (strongly recommended):   |                                                                                                                      |       |
| PHSX 215N & PHSX 216N                            | Fundamentals of Physics with Calculus I and Physics Laboratory I with Calculus                                       |       |
| PHSX 217N & PHSX 218N                            | Fundamentals of Physics with Calculus II and Physics Laboratory II with Calculus                                     |       |
| <b>Upper-Division Physics</b>                    |                                                                                                                      |       |
| Complete all of the following courses:           |                                                                                                                      |       |
| PHSX 301                                         | Intro Theoretical Physics                                                                                            | 3     |
| PHSX 311                                         | Oscillations and Waves                                                                                               | 2     |
| PHSX 320                                         | Classical Mechanics                                                                                                  | 3     |
| PHSX 323                                         | Intermediate Physics Lab                                                                                             | 3     |
| PHSX 343                                         | Modern Physics                                                                                                       | 3     |
| PHSX 423                                         | Electricity & Magnetism I                                                                                            | 3     |
| PHSX 444                                         | Advanced Physics Lab                                                                                                 | 3     |
| PHSX 461                                         | Quantum Mechanics I                                                                                                  | 3     |
| PHSX 499                                         | Senior Capstone Seminar                                                                                              | 1     |
| Complete two of the following courses:           |                                                                                                                      | 6     |
| PHSX 425                                         | Electricity & Magnetism II                                                                                           |       |
| PHSX 446                                         | Thermodynamics & Statistical Mechanics                                                                               |       |
| PHSX 462                                         | Quantum Mechanics II                                                                                                 |       |
| <b>Physics Electives</b> <sup>1</sup>            |                                                                                                                      |       |
| Complete two of the following courses:           |                                                                                                                      | 6     |
| PHSX 141N                                        | Einstein's Relativity<br>or ASTR 142 The Evolving Universe                                                           |       |
| PHSX 327                                         | Optics                                                                                                               |       |
| PHSX 330                                         | Communicating Physics                                                                                                |       |
| PHSX 333                                         | Computational Physics                                                                                                |       |
| PHSX 425                                         | Electricity & Magnetism II<br>or PHSX 446 Thermodynamics & Statistical Mechanics<br>or PHSX 462 Quantum Mechanics II |       |
| <b>Math Requirements</b> <sup>2</sup>            |                                                                                                                      |       |
| Complete all of the following courses:           |                                                                                                                      |       |
| M 171                                            | Calculus I                                                                                                           | 4     |
| M 172                                            | Calculus II                                                                                                          | 4     |
| M 221                                            | Introduction to Linear Algebra                                                                                       | 4     |
| M 273                                            | Multivariable Calculus                                                                                               | 4     |

### Computer Science Requirements

|                                                  |                                      |           |
|--------------------------------------------------|--------------------------------------|-----------|
| Complete one of the following courses:           |                                      | 3         |
| CSCI 150                                         | Introduction to Computer Science     |           |
| CSCI 151                                         | Interdisciplinary Computer Science I |           |
| PHSX 333                                         | Computational Physics                |           |
| <b>Advanced Writing Requirement</b> <sup>3</sup> |                                      |           |
| Complete the following course:                   |                                      |           |
| PHSX 330                                         | Communicating Physics                | 3         |
| <b>Total Hours</b>                               |                                      | <b>68</b> |

<sup>1</sup> Other PHSX courses may be substituted with adviser approval.

<sup>2</sup> M 412 and M 418 are also recommended.

<sup>3</sup> Students may substitute another advanced writing course with the approval of the department chair.

## Four Year Plan

| Course                        | Title                                                                            | Hours     |
|-------------------------------|----------------------------------------------------------------------------------|-----------|
| <b>Freshman</b>               |                                                                                  |           |
| <b>Autumn</b>                 |                                                                                  |           |
| PHSX 215N & PHSX 216N         | Fundamentals of Physics with Calculus I and Physics Laboratory I with Calculus   | 5         |
| M 171                         | Calculus I                                                                       | 4         |
| PHSX 101                      | The Physics Experience                                                           | 1         |
| WRIT 101                      | College Writing I                                                                | 4         |
| CSCI 150                      | Introduction to Computer Science                                                 | 3         |
| <b>Hours</b>                  |                                                                                  | <b>17</b> |
| <b>Spring</b>                 |                                                                                  |           |
| PHSX 217N & PHSX 218N         | Fundamentals of Physics with Calculus II and Physics Laboratory II with Calculus | 5         |
| M 172                         | Calculus II                                                                      | 4         |
| CSCI 151                      | Interdisciplinary Computer Science I                                             | 3         |
| General Education Requirement |                                                                                  | 3         |
| <b>Hours</b>                  |                                                                                  | <b>15</b> |
| <b>Sophomore</b>              |                                                                                  |           |
| <b>Autumn</b>                 |                                                                                  |           |
| PHSX 311                      | Oscillations and Waves                                                           | 2         |
| PHSX 343                      | Modern Physics                                                                   | 3         |
| M 273                         | Multivariable Calculus                                                           | 4         |
| Elective                      |                                                                                  | 6         |
| <b>Hours</b>                  |                                                                                  | <b>15</b> |
| <b>Spring</b>                 |                                                                                  |           |
| PHSX 301                      | Intro to Theoretical Physics                                                     | 3         |
| PHSX 320                      | Classical Mechanics                                                              | 3         |
| M 221                         | Introduction to Linear Algebra                                                   | 4         |
| Elective                      |                                                                                  | 5         |
| <b>Hours</b>                  |                                                                                  | <b>15</b> |
| <b>Junior</b>                 |                                                                                  |           |
| <b>Autumn</b>                 |                                                                                  |           |
| PHSX 461                      | Quantum Mechanics I                                                              | 3         |
| M 274                         | Introduction to Differential Equations                                           | 4         |
| PHSX 389                      | Research Initiation                                                              | 1         |
| General Education Requirement |                                                                                  | 6         |
| PHSX or General Elective      |                                                                                  | 3         |
| <b>Hours</b>                  |                                                                                  | <b>17</b> |
| <b>Spring</b>                 |                                                                                  |           |
| PHSX 462 or PHSX 446          | Quantum Mechanics II or Thermodynamics & Statistical Mechanics                   | 3         |
| PHSX 330                      | Communicating Physics                                                            | 3         |
| PHSX or General Elective      |                                                                                  | 3         |

|                               |                                                                         |     |
|-------------------------------|-------------------------------------------------------------------------|-----|
| General Education Requirement |                                                                         | 6   |
| Hours                         |                                                                         | 15  |
| Senior                        |                                                                         |     |
| Autumn                        |                                                                         |     |
| PHSX 323                      | Intermediate Physics Lab                                                | 3   |
| PHSX 423                      | Electricity & Magnetism I                                               | 3   |
| PHSX 499                      | Senior Capstone Seminar                                                 | 1   |
| General Education Requirement |                                                                         | 3   |
| PHSX Elective                 |                                                                         | 3   |
| Hours                         |                                                                         | 13  |
| Spring                        |                                                                         |     |
| PHSX 425<br>or PHSX 446       | Electricity & Magnetism II<br>or Thermodynamics & Statistical Mechanics | 3   |
| PHSX 444                      | Advanced Physics Lab                                                    | 3   |
| PHSX Elective                 |                                                                         | 3   |
| General Elective              |                                                                         | 6   |
| Hours                         |                                                                         | 15  |
| Total Hours                   |                                                                         | 122 |

Last updated Autumn 2024

## Physics B.A. - Astronomy

The astronomy concentration provides a thorough study of astronomy and astrophysics as well as a solid background in physics and mathematics. Graduates from this program have gone on to graduate programs in astronomy and astrophysics while others have found career opportunities at national astronomical observatories.

## General Degree Requirements

To earn a baccalaureate degree, all students must complete successfully, in addition to any other requirements, the University of Montana General Education Requirements. Please refer to the General Education Requirements page (p. 39) for more information.

Additional requirements for graduation can be found on the Degree/Certificate Requirements for Graduation page (p. 36).

Unless otherwise noted in individual program requirements, a minimum grade point average of 2.00 in all work attempted at the University of Montana-Missoula is required for graduation. Please see the Academic Policies and Procedures page (p. 25) for information on how your GPA is calculated.

Courses taken to satisfy the requirements of a major, minor, or certificate program must be completed with a grade of C- or better unless a higher grade is noted in the program requirements.

## BACHELOR OF ARTS - PHYSICS; ASTRONOMY CONCENTRATION

### Course Requirements

| Code                                             | Title                                                   | Hours |
|--------------------------------------------------|---------------------------------------------------------|-------|
| Lower-Division Physics                           |                                                         |       |
| Complete one of the following Physics sequences: |                                                         | 10    |
| Algebra- and Trigonometry-based Physics:         |                                                         |       |
| PHSX 205N<br>& PHSX 206N                         | College Physics I<br>and College Physics I Laboratory   |       |
| PHSX 207N<br>& PHSX 208N                         | College Physics II<br>and College Physics II Laboratory |       |

|                                                   |                                                                                     |   |
|---------------------------------------------------|-------------------------------------------------------------------------------------|---|
| Calculus-based Physics (strongly recommended):    |                                                                                     |   |
| PHSX 215N<br>& PHSX 216N                          | Fundamentals of Physics with Calculus I<br>and Physics Laboratory I with Calculus   |   |
| PHSX 217N<br>& PHSX 218N                          | Fundamentals of Physics with Calculus II<br>and Physics Laboratory II with Calculus |   |
| Lower-Division Astronomy Core                     |                                                                                     |   |
| Complete one of the following courses:            |                                                                                     | 4 |
| ASTR 132N<br>& ASTR 135N                          | Stars, Galaxies, and the Universe<br>and Stars, Galaxies, and the Universe Lab      |   |
| ASTR 142N                                         | The Evolving Universe                                                               |   |
| Upper-Division Physics                            |                                                                                     |   |
| Complete all of the following courses:            |                                                                                     |   |
| PHSX 301                                          | Intro Theoretical Physics                                                           | 3 |
| PHSX 311                                          | Oscillations and Waves                                                              | 2 |
| PHSX 343                                          | Modern Physics                                                                      | 3 |
| PHSX 461                                          | Quantum Mechanics I                                                                 | 3 |
| PHSX 499                                          | Senior Capstone Seminar                                                             | 1 |
| Upper-Division Astronomy Core <sup>1</sup>        |                                                                                     |   |
| Complete all of the following courses:            |                                                                                     |   |
| ASTR 353                                          | Galaxies and Cosmology                                                              | 3 |
| ASTR 363                                          | Stellar Astronomy & Astrophysics I                                                  | 3 |
| ASTR 365                                          | Stellar Ast & Astrophys II                                                          | 3 |
| Physics Electives <sup>1</sup>                    |                                                                                     |   |
| Complete three of the following courses:          |                                                                                     | 9 |
| ASTR 351                                          | Planetary and Exoplanet Science                                                     |   |
| PHSX 320                                          | Classical Mechanics                                                                 |   |
| PHSX 327                                          | Optics                                                                              |   |
| PHSX 333                                          | Computational Physics                                                               |   |
| PHSX 423                                          | Electricity & Magnetism I                                                           |   |
| PHSX 425                                          | Electricity & Magnetism II                                                          |   |
| PHSX 446                                          | Thermodynamics & Statistical Mechanics                                              |   |
| PHSX 451                                          | Elementary Particle Physics                                                         |   |
| PHSX 462                                          | Quantum Mechanics II                                                                |   |
| PHSX 491                                          | Special Topics                                                                      |   |
| Physics Laboratory Elective                       |                                                                                     |   |
| Complete one of the following laboratory courses: |                                                                                     | 3 |
| ASTR 362                                          | Observational Astronomy                                                             |   |
| PHSX 323                                          | Intermediate Physics Lab                                                            |   |
| PHSX 444                                          | Advanced Physics Lab                                                                |   |
| Math Requirements <sup>2</sup>                    |                                                                                     |   |
| Complete all of the following courses:            |                                                                                     |   |
| M 171                                             | Calculus I                                                                          | 4 |
| M 172                                             | Calculus II                                                                         | 4 |
| M 221                                             | Introduction to Linear Algebra                                                      | 4 |
| M 273                                             | Multivariable Calculus                                                              | 4 |
| Computer Science Requirements                     |                                                                                     |   |
| Complete one of the following courses:            |                                                                                     | 3 |
| CSCI 150                                          | Introduction to Computer Science                                                    |   |
| CSCI 151                                          | Interdisciplinary Computer Science I                                                |   |
| PHSX 333                                          | Computational Physics                                                               |   |
| Advanced Writing Requirement <sup>3</sup>         |                                                                                     |   |
| Complete the following course:                    |                                                                                     |   |



|                    |                       |           |
|--------------------|-----------------------|-----------|
| PHSX 330           | Communicating Physics | 3         |
| <b>Total Hours</b> |                       | <b>69</b> |

- <sup>1</sup> In addition, ASTR 351 and ASTR 362 are recommended.  
<sup>2</sup> M 412 and M 418 are also recommended.  
<sup>3</sup> Students may substitute another advanced writing course with the approval of the department chair.

## Four Year Plan

| Course                        | Title                                                                               | Hours     |
|-------------------------------|-------------------------------------------------------------------------------------|-----------|
| <b>Freshman</b>               |                                                                                     |           |
| <b>Autumn</b>                 |                                                                                     |           |
| PHSX 215N<br>& PHSX 216N      | Fundamentals of Physics with Calculus I<br>and Physics Laboratory I with Calculus   | 5         |
| M 171                         | Calculus I                                                                          | 4         |
| PHSX 101                      | The Physics Experience                                                              | 1         |
| CSCI 150                      | Introduction to Computer Science                                                    | 3         |
| HUSC 194                      | Seminar/Workshop                                                                    | 1         |
| Elective                      |                                                                                     | 2         |
| <b>Hours</b>                  |                                                                                     | <b>16</b> |
| <b>Spring</b>                 |                                                                                     |           |
| PHSX 217N<br>& PHSX 218N      | Fundamentals of Physics with Calculus II<br>and Physics Laboratory II with Calculus | 5         |
| M 172                         | Calculus II                                                                         | 4         |
| ASTR 142N                     | The Evolving Universe                                                               | 4         |
| WRIT 101                      | College Writing I                                                                   | 4         |
| <b>Hours</b>                  |                                                                                     | <b>17</b> |
| <b>Sophomore</b>              |                                                                                     |           |
| <b>Autumn</b>                 |                                                                                     |           |
| PHSX 311                      | Oscillations and Waves                                                              | 2         |
| PHSX 343                      | Modern Physics                                                                      | 3         |
| M 273                         | Multivariable Calculus                                                              | 4         |
| CSCI 151                      | Interdisciplinary Computer Science I                                                | 3         |
| <b>Hours</b>                  |                                                                                     | <b>12</b> |
| <b>Spring</b>                 |                                                                                     |           |
| PHSX 301                      | Intro to Theoretical Physics                                                        | 3         |
| M 221                         | Introduction to Linear Algebra                                                      | 4         |
| Astronomy Major Elective      |                                                                                     | 3         |
| Elective                      |                                                                                     | 3         |
| <b>Hours</b>                  |                                                                                     | <b>13</b> |
| <b>Junior</b>                 |                                                                                     |           |
| <b>Autumn</b>                 |                                                                                     |           |
| ASTR 362                      | Observational Astronomy                                                             | 3         |
| ASTR 351                      | Planetary and Exoplanet Science                                                     | 3         |
| PHSX 461                      | Quantum Mechanics I                                                                 | 3         |
| General Education Requirement |                                                                                     | 6         |
| <b>Hours</b>                  |                                                                                     | <b>15</b> |
| <b>Spring</b>                 |                                                                                     |           |
| ASTR 353                      | Galaxies and Cosmology                                                              | 3         |
| PHSX 330                      | Communicating Physics                                                               | 3         |
| PHSX 462                      | Quantum Mechanics II                                                                | 3         |
| General Education Requirement |                                                                                     | 6         |
| <b>Hours</b>                  |                                                                                     | <b>15</b> |
| <b>Senior</b>                 |                                                                                     |           |
| <b>Autumn</b>                 |                                                                                     |           |
| ASTR 363                      | Stellar Astronomy & Astrophysics I                                                  | 3         |
| PHSX 499                      | Senior Capstone Seminar                                                             | 1         |
| PHSX 423                      | Electricity & Magnetism I                                                           | 3         |
| General Education Requirement |                                                                                     | 3         |

|                               |     |
|-------------------------------|-----|
| Elective                      | 5   |
| Hours                         | 15  |
| Spring                        |     |
| Astronomy Major Elective      | 6   |
| General Education Requirement | 3   |
| Elective                      | 7   |
| Hours                         | 16  |
| Total Hours                   | 119 |

Last updated Autumn 2024

## Physics B.A. - Computational Physics

The computational physics concentration provides a thorough study of computer science and computational physics as well as a solid background in physics and mathematics. Graduates from this program have gone on to graduate programs in physics and computer science while others have found career opportunities in technical fields.

## General Degree Requirements

To earn a baccalaureate degree, all students must complete successfully, in addition to any other requirements, the University of Montana General Education Requirements. Please refer to the General Education Requirements page (p. 39) for more information.

Additional requirements for graduation can be found on the Degree/Certificate Requirements for Graduation page (p. 36).

Unless otherwise noted in individual program requirements, a minimum grade point average of 2.00 in all work attempted at the University of Montana-Missoula is required for graduation. Please see the Academic Policies and Procedures page (p. 25) for information on how your GPA is calculated.

Courses taken to satisfy the requirements of a major, minor, or certificate program must be completed with a grade of C- or better unless a higher grade is noted in the program requirements.

## BACHELOR OF ARTS - PHYSICS; COMPUTATIONAL PHYSICS CONCENTRATION

### Course Requirements

| Code                                             | Title                                                                               | Hours |
|--------------------------------------------------|-------------------------------------------------------------------------------------|-------|
| <b>Lower-Division Physics</b>                    |                                                                                     |       |
| Complete one of the following Physics sequences: |                                                                                     | 10    |
| Algebra- and Trigonometry-based Physics:         |                                                                                     |       |
| PHSX 205N<br>& PHSX 206N                         | College Physics I<br>and College Physics I Laboratory                               |       |
| PHSX 207N<br>& PHSX 208N                         | College Physics II<br>and College Physics II Laboratory                             |       |
| Calculus-based Physics (strongly recommended):   |                                                                                     |       |
| PHSX 215N<br>& PHSX 216N                         | Fundamentals of Physics with Calculus I<br>and Physics Laboratory I with Calculus   |       |
| PHSX 217N<br>& PHSX 218N                         | Fundamentals of Physics with Calculus II<br>and Physics Laboratory II with Calculus |       |
| <b>Upper-Division Physics</b>                    |                                                                                     |       |
| Complete all of the following courses:           |                                                                                     |       |
| PHSX 301                                         | Intro Theoretical Physics                                                           | 3     |

|                                                                                                        |                                             |           |
|--------------------------------------------------------------------------------------------------------|---------------------------------------------|-----------|
| PHSX 311                                                                                               | Oscillations and Waves                      | 2         |
| PHSX 320                                                                                               | Classical Mechanics                         | 3         |
| PHSX 333                                                                                               | Computational Physics                       | 3         |
| PHSX 343                                                                                               | Modern Physics                              | 3         |
| PHSX 423                                                                                               | Electricity & Magnetism I                   | 3         |
| PHSX 499                                                                                               | Senior Capstone Seminar                     | 1         |
| <b>Physics Elective</b>                                                                                |                                             |           |
| Complete one of the following courses:                                                                 |                                             | 3         |
| PHSX 141N                                                                                              | Einstein's Relativity                       |           |
| PHSX 323                                                                                               | Intermediate Physics Lab                    |           |
| PHSX 327                                                                                               | Optics                                      |           |
| PHSX 330                                                                                               | Communicating Physics                       |           |
| PHSX 425                                                                                               | Electricity & Magnetism II                  |           |
| PHSX 444                                                                                               | Advanced Physics Lab                        |           |
| PHSX 446                                                                                               | Thermodynamics & Statistical Mechanics      |           |
| PHSX 461                                                                                               | Quantum Mechanics I                         |           |
| PHSX 462                                                                                               | Quantum Mechanics II                        |           |
| <b>Math Requirements <sup>1</sup></b>                                                                  |                                             |           |
| Complete all of the following courses:                                                                 |                                             |           |
| M 171                                                                                                  | Calculus I                                  | 4         |
| M 172                                                                                                  | Calculus II                                 | 4         |
| M 221                                                                                                  | Introduction to Linear Algebra              | 4         |
| M 225                                                                                                  | Introduction to Discrete Mathematics        | 3         |
| M 273                                                                                                  | Multivariable Calculus                      | 4         |
| <b>Computer Science Requirements</b>                                                                   |                                             |           |
| Complete all of the following courses:                                                                 |                                             |           |
| CSCI 151                                                                                               | Interdisciplinary Computer Science I        | 3         |
| CSCI 152                                                                                               | Interdisciplinary Computer Science II       | 3         |
| CSCI 232                                                                                               | Intermediate Data Structures and Algorithms | 4         |
| CSCI 332                                                                                               | Advanced Data Structures and Algorithms     | 3         |
| <b>Computer Science Electives</b>                                                                      |                                             |           |
| Complete 7 credits from any CSCI course numbered 200 and above. The following courses are recommended: |                                             | 7         |
| CSCI 205                                                                                               | Programming with C/C++                      |           |
| CSCI 361                                                                                               | Computer Architecture                       |           |
| CSCI 477                                                                                               | Simulation                                  |           |
| <b>Advanced Writing Requirement <sup>2</sup></b>                                                       |                                             |           |
| Complete the following course:                                                                         |                                             |           |
| PHSX 330                                                                                               | Communicating Physics                       | 3         |
| <b>Total Hours</b>                                                                                     |                                             | <b>73</b> |

<sup>1</sup> In addition, M 307, STAT 341, and STAT 458 are recommended.  
<sup>2</sup> Students may substitute another advanced writing course with the approval of the department chair.

Four Year Plan

| Course                | Title                                                                          | Hours |
|-----------------------|--------------------------------------------------------------------------------|-------|
| <b>Freshman</b>       |                                                                                |       |
| <b>Autumn</b>         |                                                                                |       |
| PHSX 215N & PHSX 216N | Fundamentals of Physics with Calculus I and Physics Laboratory I with Calculus | 5     |
| M 171                 | Calculus I                                                                     | 4     |
| PHSX 101              | The Physics Experience                                                         | 1     |

|                                |                                                                                  |            |
|--------------------------------|----------------------------------------------------------------------------------|------------|
| CSCI 150                       | Introduction to Computer Science                                                 | 3          |
| HUSC 194                       | Seminar/Workshop                                                                 | 1          |
| <b>Elective</b>                |                                                                                  | <b>2</b>   |
| <b>Hours</b>                   |                                                                                  | <b>16</b>  |
| <b>Spring</b>                  |                                                                                  |            |
| PHSX 217N & PHSX 218N          | Fundamentals of Physics with Calculus II and Physics Laboratory II with Calculus | 5          |
| M 172                          | Calculus II                                                                      | 4          |
| CSCI 151                       | Interdisciplinary Computer Science I                                             | 3          |
| WRIT 101                       | College Writing I                                                                | 4          |
| <b>Hours</b>                   |                                                                                  | <b>16</b>  |
| <b>Sophomore</b>               |                                                                                  |            |
| <b>Autumn</b>                  |                                                                                  |            |
| PHSX 311                       | Oscillations and Waves                                                           | 2          |
| M 273                          | Multivariable Calculus                                                           | 4          |
| M 225                          | Introduction to Discrete Mathematics                                             | 3          |
| General Education Requirement  |                                                                                  | 3          |
| CSCI 152                       | Interdisciplinary Computer Science II                                            | 3          |
| <b>Hours</b>                   |                                                                                  | <b>15</b>  |
| <b>Spring</b>                  |                                                                                  |            |
| PHSX 301                       | Intro to Theoretical Physics                                                     | 3          |
| M 221                          | Introduction to Linear Algebra                                                   | 4          |
| CSCI 361                       | Computer Architecture                                                            | 3          |
| General Education Requirement  |                                                                                  | 3          |
| CSCI 232                       | Intermediate Data Structures and Algorithms                                      | 4          |
| <b>Hours</b>                   |                                                                                  | <b>17</b>  |
| <b>Junior</b>                  |                                                                                  |            |
| <b>Autumn</b>                  |                                                                                  |            |
| PHSX 343                       | Modern Physics                                                                   | 3          |
| General Education Requirement  |                                                                                  | 6          |
| Elective                       |                                                                                  | 5          |
| <b>Hours</b>                   |                                                                                  | <b>14</b>  |
| <b>Spring</b>                  |                                                                                  |            |
| PHSX 320                       | Classical Mechanics                                                              | 3          |
| PHSX 330                       | Communicating Physics                                                            | 3          |
| CSCI 332                       | Advanced Data Structures and Algorithms                                          | 3          |
| Elective                       |                                                                                  | 6          |
| <b>Hours</b>                   |                                                                                  | <b>15</b>  |
| <b>Senior</b>                  |                                                                                  |            |
| <b>Autumn</b>                  |                                                                                  |            |
| PHSX 423                       | Electricity & Magnetism I                                                        | 3          |
| PHSX 499                       | Senior Capstone Seminar                                                          | 1          |
| CSCI 332                       | Advanced Data Structures and Algorithms                                          | 3          |
| Physics Major Elective         |                                                                                  | 3          |
| Elective                       |                                                                                  | 2          |
| <b>Hours</b>                   |                                                                                  | <b>12</b>  |
| <b>Spring</b>                  |                                                                                  |            |
| PHSX 333                       | Computational Physics                                                            | 3          |
| CSCI 340                       | Database Design                                                                  | 3          |
| Physics Major Elective         |                                                                                  | 3          |
| General Education Requirements |                                                                                  | 6          |
| <b>Hours</b>                   |                                                                                  | <b>15</b>  |
| <b>Total Hours</b>             |                                                                                  | <b>120</b> |

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**Physics B.A. - Engineering Physics**  
The Engineering Physics concentration provides a thorough study of physics and a solid background in engineering and mathematics.

Graduates from this program can go on to graduate programs in physics and engineering or seek career opportunities in technical fields.

## General Degree Requirements

To earn a baccalaureate degree, all students must complete successfully, in addition to any other requirements, the University of Montana General Education Requirements. Please refer to the General Education Requirements page (p. 39) for more information.

Additional requirements for graduation can be found on the Degree/Certificate Requirements for Graduation page (p. 36).

Unless otherwise noted in individual program requirements, a minimum grade point average of 2.00 in all work attempted at the University of Montana-Missoula is required for graduation. Please see the Academic Policies and Procedures page (p. 25) for information on how your GPA is calculated.

Courses taken to satisfy the requirements of a major, minor, or certificate program must be completed with a grade of C- or better unless a higher grade is noted in the program requirements.

## BACHELOR OF ARTS - PHYSICS; ENGINEERING PHYSICS CONCENTRATION

### Course Requirements

| Code                                         | Title                                                                            | Hours |
|----------------------------------------------|----------------------------------------------------------------------------------|-------|
| <b>Lower-Division Physics Core</b>           |                                                                                  |       |
| Complete all of the following courses:       |                                                                                  |       |
| PHSX 215N & PHSX 216N                        | Fundamentals of Physics with Calculus I and Physics Laboratory I with Calculus   | 5     |
| PHSX 217N & PHSX 218N                        | Fundamentals of Physics with Calculus II and Physics Laboratory II with Calculus | 5     |
| <b>Upper-Division Physics Core</b>           |                                                                                  |       |
| Complete all of the following courses:       |                                                                                  |       |
| PHSX 301                                     | Intro Theoretical Physics                                                        | 3     |
| PHSX 311                                     | Oscillations and Waves                                                           | 2     |
| PHSX 323                                     | Intermediate Physics Lab                                                         | 3     |
| PHSX 343                                     | Modern Physics                                                                   | 3     |
| PHSX 423                                     | Electricity & Magnetism I                                                        | 3     |
| PHSX 446                                     | Thermodynamics & Statistical Mechanics                                           | 3     |
| PHSX 499                                     | Senior Capstone Seminar                                                          | 1     |
| <b>Engineering Core</b>                      |                                                                                  |       |
| Complete all of the following courses:       |                                                                                  |       |
| EGEN 101                                     | Intro to Engineering Calculation & Problem Solving                               | 3     |
| EGEN 201                                     | Engineering Statics                                                              | 3     |
| EGEN 202                                     | Engineering Mechanics - Dynamics                                                 | 3     |
| EELE 201                                     | Circuits I for Engineering                                                       | 4     |
| <b>Physics and Engineering Electives</b>     |                                                                                  |       |
| Complete 9 credits of the following courses: |                                                                                  |       |
| PHSX 320                                     | Classical Mechanics                                                              |       |
| PHSX 327                                     | Optics                                                                           |       |
| PHSX 330                                     | Communicating Physics                                                            |       |
| PHSX 333                                     | Computational Physics                                                            |       |
| PHSX 425                                     | Electricity & Magnetism II                                                       |       |

|                                                  |                                        |           |
|--------------------------------------------------|----------------------------------------|-----------|
| PHSX 444                                         | Advanced Physics Lab                   |           |
| PHSX 461                                         | Quantum Mechanics I                    |           |
| PHSX 462                                         | Quantum Mechanics II                   |           |
| <b>Math Requirements <sup>1</sup></b>            |                                        |           |
| Complete all of the following courses:           |                                        |           |
| M 171                                            | Calculus I                             | 4         |
| M 172                                            | Calculus II                            | 4         |
| M 273                                            | Multivariable Calculus                 | 4         |
| M 274                                            | Introduction to Differential Equations | 4         |
| <b>Computer Science Requirements</b>             |                                        |           |
| Complete one of the following courses:           |                                        |           |
| CSCI 151                                         | Interdisciplinary Computer Science I   | 3         |
| PHSX 333                                         | Computational Physics                  |           |
| <b>Advanced Writing Requirement <sup>2</sup></b> |                                        |           |
| Complete the following course:                   |                                        |           |
| PHSX 330                                         | Communicating Physics                  | 3         |
| <b>Total Hours</b>                               |                                        | <b>72</b> |

<sup>1</sup> M 412 and M 418 are also recommended.

<sup>2</sup> Students may substitute another advanced writing course with the approval of the department chair.

## Four Year Plan

| Course                        | Title                                                                            | Hours     |
|-------------------------------|----------------------------------------------------------------------------------|-----------|
| <b>Freshman</b>               |                                                                                  |           |
| <b>Autumn</b>                 |                                                                                  |           |
| PHSX 101                      | The Physics Experience                                                           | 1         |
| PHSX 215N & PHSX 216N         | Fundamentals of Physics with Calculus I and Physics Laboratory I with Calculus   | 5         |
| M 171                         | Calculus I                                                                       | 4         |
| EGEN 101                      | Intro to Engineering Calculation & Problem Solving                               | 3         |
| Elective or Gen Ed            |                                                                                  | 2         |
| <b>Hours</b>                  |                                                                                  | <b>15</b> |
| <b>Spring</b>                 |                                                                                  |           |
| PHSX 217N & PHSX 218N         | Fundamentals of Physics with Calculus II and Physics Laboratory II with Calculus | 5         |
| M 172                         | Calculus II                                                                      | 4         |
| CSCI 150 or CSCI 151          | Introduction to Computer Science or Interdisciplinary Computer Science I         | 3         |
| WRIT 101                      | College Writing I (semester depends on last name)                                | 4         |
| <b>Hours</b>                  |                                                                                  | <b>16</b> |
| <b>Sophomore</b>              |                                                                                  |           |
| <b>Autumn</b>                 |                                                                                  |           |
| PHSX 311                      | Oscillations and Waves                                                           | 2         |
| PHSX 343                      | Modern Physics                                                                   | 3         |
| EGEN 201                      | Engineering Statics                                                              | 3         |
| M 273                         | Multivariable Calculus                                                           | 4         |
| General Education Requirement |                                                                                  | 3         |
| <b>Hours</b>                  |                                                                                  | <b>15</b> |
| <b>Spring</b>                 |                                                                                  |           |
| PHSX 301                      | Intro to Theoretical Physics                                                     | 3         |
| EGEN 202                      | Engineering Mechanics - Dynamics                                                 | 3         |
| EELE 201                      | Circuits I for Engineering                                                       | 4         |
| General Education Requirement |                                                                                  | 5         |
| <b>Hours</b>                  |                                                                                  | <b>15</b> |
| <b>Junior</b>                 |                                                                                  |           |
| <b>Autumn</b>                 |                                                                                  |           |
| PHSX 461                      | Quantum Mechanics I <sup>1</sup>                                                 | 3         |

|                               |                                        |     |
|-------------------------------|----------------------------------------|-----|
| PHSX 323                      | Intermediate Physics Lab               | 3   |
| M 274                         | Introduction to Differential Equations | 4   |
| General Education Requirement |                                        | 6   |
| Hours                         |                                        | 16  |
| Spring                        |                                        |     |
| EGEN 335                      | 1                                      | 3   |
| PHSX 330                      | Communicating Physics <sup>2</sup>     | 3   |
| General Education Requirement |                                        | 6   |
| Upper Division Course         |                                        | 3   |
| Hours                         |                                        | 15  |
| Senior                        |                                        |     |
| Autumn                        |                                        |     |
| PHSX 423                      | Electricity & Magnetism I              | 3   |
| PHSX 499                      | Senior Capstone Seminar                | 1   |
| Upper Division Course         |                                        | 3   |
| General Elective Course       |                                        | 3   |
| Elective                      |                                        | 5   |
| Hours                         |                                        | 15  |
| Spring                        |                                        |     |
| PHSX 446                      | Thermodynamics & Statistical Mechanics | 3   |
| PHSX 444                      | Advanced Physics Lab                   | 3   |
| Upper Division Course         |                                        | 3   |
| Elective                      |                                        | 6   |
| Hours                         |                                        | 15  |
| Total Hours                   |                                        | 122 |

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## Four Year Plan - Alternative Path (Pre-Calc)

| Course                        | Title                                                                               | Hours |
|-------------------------------|-------------------------------------------------------------------------------------|-------|
| Freshman                      |                                                                                     |       |
| Autumn                        |                                                                                     |       |
| PHSX 101                      | The Physics Experience                                                              | 1     |
| EGEN 101                      | Intro to Engineering Calculation & Problem Solving                                  | 3     |
| M 151                         | Precalculus                                                                         | 4     |
| WRIT 101                      | College Writing I (semester depends on last name)                                   | 4     |
| General Education Requirement |                                                                                     | 4     |
| Hours                         |                                                                                     | 16    |
| Spring                        |                                                                                     |       |
| M 171                         | Calculus I                                                                          | 4     |
| CSCI 150<br>or CSCI 151       | Introduction to Computer Science<br>or Interdisciplinary Computer Science I         | 3     |
| General Education Requirement |                                                                                     | 3     |
| Elective                      |                                                                                     | 2     |
| Hours                         |                                                                                     | 12    |
| Sophomore                     |                                                                                     |       |
| Autumn                        |                                                                                     |       |
| PHSX 215N<br>& PHSX 216N      | Fundamentals of Physics with Calculus I<br>and Physics Laboratory I with Calculus   | 5     |
| M 172                         | Calculus II                                                                         | 4     |
| EGEN 201                      | Engineering Statics                                                                 | 3     |
| General Education Requirement |                                                                                     | 3     |
| Hours                         |                                                                                     | 15    |
| Spring                        |                                                                                     |       |
| PHSX 217N<br>& PHSX 218N      | Fundamentals of Physics with Calculus II<br>and Physics Laboratory II with Calculus | 5     |
| M 273                         | Multivariable Calculus                                                              | 4     |
| EGEN 202                      | Engineering Mechanics - Dynamics                                                    | 3     |
| General Education Requirement |                                                                                     | 3     |
| Hours                         |                                                                                     | 15    |

|                               |                                        |     |
|-------------------------------|----------------------------------------|-----|
| Junior                        |                                        |     |
| Autumn                        |                                        |     |
| PHSX 311                      | Oscillations and Waves                 | 2   |
| PHSX 343                      | Modern Physics                         | 3   |
| M 274                         | Introduction to Differential Equations | 4   |
| General Education Requirement |                                        | 4   |
| Upper Division Course         |                                        | 3   |
| Hours                         |                                        | 16  |
| Spring                        |                                        |     |
| PHSX 301                      | Intro to Theoretical Physics           | 3   |
| EELE 201                      | Circuits I for Engineering             | 4   |
| PHSX 320                      | Classical Mechanics                    | 3   |
| PHSX 330                      | Communicating Physics <sup>2</sup>     | 3   |
| Elective                      |                                        | 2   |
| Hours                         |                                        | 15  |
| Senior                        |                                        |     |
| Autumn                        |                                        |     |
| PHSX 323                      | Intermediate Physics Lab               | 3   |
| PHSX 423                      | Electricity & Magnetism I              | 3   |
| PHSX 461                      | Quantum Mechanics I                    | 3   |
| PHSX 499                      | Senior Capstone Seminar                | 1   |
| General Education Requirement |                                        | 5   |
| Hours                         |                                        | 15  |
| Spring                        |                                        |     |
| PHSX 446                      | Thermodynamics & Statistical Mechanics | 3   |
| EGEN 335                      | or PHSX elective                       | 3   |
| Upper Division Course         |                                        | 6   |
| General Education Requirement |                                        | 3   |
| Hours                         |                                        | 15  |
| Total Hours                   |                                        | 119 |

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<sup>1</sup> Physics elective  
<sup>2</sup> PHSX 330 offered alternate years. Take as a junior or senior.

## Physics B.A. - Physics Education

- This concentration contains additional course requirements designed to meet state standards. Those interested in teaching in K-12 schools must complete the education/teaching concentration of a major in a teaching content area plus the Teacher Education Program through the Department of Teaching and Learning. Additional teaching areas can be added through completion of the education/teaching concentration of a major or education/teaching minor in that content area.
  - Secondary Education Licensure Program (<https://www.umt.edu/education/departments/teaching-and-learning/tep/default.php>)
  - Licensure Degree Requirements (p. 151)
- To complete this concentration, you need to contact the Teaching and Learning Department. Approvals for this concentration must come from the Teaching and Learning Department.
- This major and concentration do not qualify as a single-field endorsement. The demand for teaching in this field is limited. The required second endorsement (either a teaching major or a teaching minor) should be in a field in high demand.

## General Degree Requirements

To earn a baccalaureate degree, all students must complete successfully, in addition to any other requirements, the University of Montana

General Education Requirements. Please refer to the General Education Requirements page (p. 39) for more information.

Additional requirements for graduation can be found on the Degree/Certificate Requirements for Graduation page (p. 36).

Unless otherwise noted in individual program requirements, a minimum grade point average of 2.00 in all work attempted at the University of Montana-Missoula is required for graduation. Please see the Academic Policies and Procedures page (p. 25) for information on how your GPA is calculated.

Courses taken to satisfy the requirements of a major, minor, or certificate program must be completed with a grade of C- or better unless a higher grade is noted in the program requirements.

## Bachelor of Arts - Physics; Physics Education Concentration

### Course Requirements

| Code                                             | Title                                                                            | Hours |
|--------------------------------------------------|----------------------------------------------------------------------------------|-------|
| <b>Lower-Division Physics</b>                    |                                                                                  |       |
| Complete one of the following Physics sequences: |                                                                                  | 10    |
| Algebra- and Trigonometry-based Physics:         |                                                                                  |       |
| PHSX 205N & PHSX 206N                            | College Physics I and College Physics I Laboratory                               |       |
| PHSX 207N & PHSX 208N                            | College Physics II and College Physics II Laboratory                             |       |
| Calculus-based Physics (strongly recommended):   |                                                                                  |       |
| PHSX 215N & PHSX 216N                            | Fundamentals of Physics with Calculus I and Physics Laboratory I with Calculus   |       |
| PHSX 217N & PHSX 218N                            | Fundamentals of Physics with Calculus II and Physics Laboratory II with Calculus |       |
| <b>Upper-Division Physics</b>                    |                                                                                  |       |
| Complete all of the following courses:           |                                                                                  |       |
| PHSX 301                                         | Intro to Theoretical Physics                                                     | 3     |
| PHSX 311                                         | Oscillations and Waves                                                           | 2     |
| PHSX 320                                         | Classical Mechanics                                                              | 3     |
| PHSX 323                                         | Intermediate Physics Lab                                                         | 3     |
| PHSX 343                                         | Modern Physics                                                                   | 3     |
| PHSX 423                                         | Electricity & Magnetism I                                                        | 3     |
| PHSX 444                                         | Advanced Physics Lab                                                             | 3     |
| PHSX 461                                         | Quantum Mechanics I                                                              | 3     |
| PHSX 499                                         | Senior Capstone Seminar                                                          | 1     |
| Complete two of the following courses:           |                                                                                  | 6     |
| PHSX 425                                         | Electricity & Magnetism II                                                       |       |
| PHSX 446                                         | Thermodynamics & Statistical Mechanics                                           |       |
| PHSX 462                                         | Quantum Mechanics II                                                             |       |
| <b>Physics Electives</b> <sup>1</sup>            |                                                                                  |       |
| Complete two of the following courses:           |                                                                                  | 6     |
| PHSX 141N                                        | Einstein's Relativity                                                            |       |
|                                                  | or ASTR 142 The Evolving Universe                                                |       |
| PHSX 327                                         | Optics                                                                           |       |
| PHSX 330                                         | Communicating Physics                                                            |       |
| PHSX 333                                         | Computational Physics                                                            |       |
| PHSX 425                                         | Electricity & Magnetism II                                                       |       |

or PHSX 446 Thermodynamics & Statistical Mechanics  
or PHSX 462 Quantum Mechanics II

### Math Requirements<sup>2</sup>

Complete all of the following courses:

|       |                                |   |
|-------|--------------------------------|---|
| M 171 | Calculus I                     | 4 |
| M 172 | Calculus II                    | 4 |
| M 221 | Introduction to Linear Algebra | 4 |
| M 273 | Multivariable Calculus         | 4 |

### Computer Science Requirements

Complete one of the following courses:

|          |                                      |   |
|----------|--------------------------------------|---|
| CSCI 150 | Introduction to Computer Science     | 3 |
| CSCI 151 | Interdisciplinary Computer Science I |   |
| PHSX 333 | Computational Physics                |   |

### Writing in the Disciplines Requirement<sup>3</sup>

Complete the following course:

|          |                       |   |
|----------|-----------------------|---|
| PHSX 330 | Communicating Physics | 3 |
|----------|-----------------------|---|

### Physics Education Concentration Additional Science Requirements

Complete all of the following courses:

|           |                                         |   |
|-----------|-----------------------------------------|---|
| ASTR 131N | Planetary Astronomy                     | 3 |
| ASTR 132N | Stars, Galaxies, and the Universe       | 3 |
| CHMY 121N | Introduction to General Chemistry       | 4 |
| CHMY 485  | Laboratory Safety                       | 1 |
| GEO 101N  | Introduction to Physical Geology        | 3 |
|           | or EARTH 101N Earth Systems Science     |   |
| GEO 102N  | Introduction to Physical Geology Lab    | 1 |
|           | or EARTH 103N Earth Systems Science Lab |   |

Complete one of the following courses:

|                                        |                                         |     |
|----------------------------------------|-----------------------------------------|-----|
| BIOB 160                               | Principles of Living Systems            | 3-4 |
| BIOB 170N                              | Principles of Biological Diversity      |     |
| BIOE 172N                              | Introductory Ecology                    |     |
| BIOO 105N                              | Introduction to Botany                  |     |
| Complete one of the following courses: |                                         | 3   |
| GEO 105N                               | Oceanography                            |     |
| ENSC 105N                              | Environmental Science                   |     |
| ENST 472                               | General Science: Conservation Education |     |

### Teaching Science Methods Course

Complete the following course:

|         |                                                |   |
|---------|------------------------------------------------|---|
| EDU 497 | Teaching and Assessing (Methods: 5-12 Science) | 3 |
|---------|------------------------------------------------|---|

**Total Hours** **92-93**

<sup>1</sup> Other PHSX courses may be substituted with adviser approval.

<sup>2</sup> M 412 and M 418 are also recommended.

<sup>3</sup> Students may substitute another advanced writing course with the approval of the department chair.

## Secondary Teaching Licensure

For endorsement to teach this subject, a student also must gain admission to the Teacher Education Program and meet all the requirements for secondary teaching licensure (p. 151). For more information, see the Teaching and Learning Department webpage (<https://www.umt.edu/education/departments/currinst/default.php>).



## Physics B.A. - Teaching Broadfield Science

Individuals interested in teaching in K-12 schools must complete a degree in the content area they want to teach plus the Teacher Education Program through the Department of Teaching and Learning. Individuals must complete the teaching track within that degree program, which may contain different course requirements than the non-teaching track since the sequence of courses is designed to meet state standards. Upon completion of the degree program with the teaching track and the secondary licensure program, one will be eligible for a standard Montana teaching license in this content area.

- Secondary Education Licensure Program (<https://www.umt.edu/education/departments/teaching-and-learning/tep/>)
- Licensure Degree Requirements (p. 151)

## General Degree Requirements

To earn a baccalaureate degree, all students must complete successfully, in addition to any other requirements, the University of Montana General Education Requirements. Please refer to the General Education Requirements page (p. 39) for more information.

Additional requirements for graduation can be found on the Degree/Certificate Requirements for Graduation page (p. 36).

Unless otherwise noted in individual program requirements, a minimum grade point average of 2.00 in all work attempted at the University of Montana-Missoula is required for graduation. Please see the Academic Policies and Procedures page (p. 25) for information on how your GPA is calculated.

Courses taken to satisfy the requirements of a major, minor, or certificate program must be completed with a grade of C- or better unless a higher grade is noted in the program requirements.

## Bachelor of Arts - Physics; Broadfield Teaching Science Concentration

- Students must be formally admitted to the Teacher Education Program and complete all of the professional education licensure requirements. See the Department of Teaching and Learning in the College of Education for more information.
- A major GPA of 2.75 is required to be eligible for student teaching.

## Course Requirements

| Code                                                 | Title                                    | Hours |
|------------------------------------------------------|------------------------------------------|-------|
| <b>Required Physics Courses</b>                      |                                          |       |
| Complete all of the following courses:               |                                          |       |
| PHSX 215N                                            | Fundamentals of Physics with Calculus I  | 4     |
| PHSX 216N                                            | Physics Laboratory I with Calculus       | 1     |
| PHSX 217N                                            | Fundamentals of Physics with Calculus II | 4     |
| PHSX 218N                                            | Physics Laboratory II with Calculus      | 1     |
| PHSX 301                                             | Intro to Theoretical Physics             | 3     |
| PHSX 311                                             | Oscillations and Waves                   | 2     |
| PHSX 330                                             | Communicating Physics                    | 3     |
| PHSX 343                                             | Modern Physics                           | 3     |
| <b>Physics Elective</b>                              |                                          |       |
| Complete 1 additional upper-division Physics course. |                                          | 3     |

### Math Requirements

|                                        |                                        |   |
|----------------------------------------|----------------------------------------|---|
| Complete all of the following courses: |                                        |   |
| M 171                                  | Calculus I                             | 4 |
| M 172                                  | Calculus II                            | 4 |
| M 273                                  | Multivariable Calculus                 | 4 |
| M 274                                  | Introduction to Differential Equations | 4 |

### Statistics Requirement

|                                        |                            |     |
|----------------------------------------|----------------------------|-----|
| Complete one of the following courses: |                            | 3-4 |
| STAT 216                               | Introduction to Statistics |     |
| STAT 342                               | Probability and Simulation |     |

### Astronomy Requirements

|                                        |                         |   |
|----------------------------------------|-------------------------|---|
| Complete all of the following courses: |                         |   |
| ASTR 131N                              | Planetary Astronomy     | 3 |
| ASTR 134N                              | Planetary Astronomy Lab | 1 |

### Geology Requirements

|                                        |                                      |   |
|----------------------------------------|--------------------------------------|---|
| Complete all of the following courses: |                                      |   |
| GEO 101N                               | Introduction to Physical Geology     | 3 |
| GEO 102N                               | Introduction to Physical Geology Lab | 1 |
| ASTR 351                               | Planetary and Exoplanet Science      | 3 |
| or GEO 105N Oceanography               |                                      |   |

### Biology Requirements

|                                        |                                  |   |
|----------------------------------------|----------------------------------|---|
| Complete all of the following courses: |                                  |   |
| BIOB 160                               | Principles of Living Systems     | 3 |
| BIOB 161N                              | Principles of Living Systems Lab | 1 |
| BIOB 260                               | Cellular and Molecular Biology   | 4 |
| BIOB 272                               | Genetics and Evolution           | 4 |

### Chemistry Requirements

|                                        |                          |   |
|----------------------------------------|--------------------------|---|
| Complete all of the following courses: |                          |   |
| CHMY 141N                              | College Chemistry I      | 4 |
| CHMY 142N                              | College Chemistry I Lab  | 1 |
| CHMY 143N                              | College Chemistry II     | 4 |
| CHMY 144N                              | College Chemistry II Lab | 1 |
| CHMY 485                               | Laboratory Safety        | 1 |

### Advanced Writing Requirement

|                                |                       |   |
|--------------------------------|-----------------------|---|
| Complete the following course: |                       |   |
| PHSX 330                       | Communicating Physics | 3 |

### Teaching Methods Requirement

|                                |                                                |   |
|--------------------------------|------------------------------------------------|---|
| Complete the following course: |                                                |   |
| EDU 497                        | Teaching and Assessing (Methods: 5-12 Science) | 3 |

**Total Hours** **83-84**

## Secondary Teaching Licensure

For endorsement to teach this subject, a student also must gain admission to the Teacher Education Program and meet all the requirements for secondary teaching licensure (p. 151). For more information, see the Teaching and Learning Department webpage (<https://www.umt.edu/education/departments/currinst/default.php>).

## Four Year Plan

| Course                        | Title                                                                               | Hours     |
|-------------------------------|-------------------------------------------------------------------------------------|-----------|
| <b>Freshman</b>               |                                                                                     |           |
| <b>Autumn</b>                 |                                                                                     |           |
| PHSX 215N<br>& PHSX 216N      | Fundamentals of Physics with Calculus I<br>and Physics Laboratory I with Calculus   | 5         |
| M 171                         | Calculus I                                                                          | 4         |
| PHSX 101                      | The Physics Experience                                                              | 1         |
| ASTR 131N<br>& ASTR 134N      | Planetary Astronomy<br>and Planetary Astronomy Lab                                  | 4         |
| HUSC 194                      | Seminar/Workshop                                                                    | 1         |
| <b>Hours</b>                  |                                                                                     | <b>15</b> |
| <b>Spring</b>                 |                                                                                     |           |
| PHSX 217N<br>& PHSX 218N      | Fundamentals of Physics with Calculus II<br>and Physics Laboratory II with Calculus | 5         |
| M 172                         | Calculus II                                                                         | 4         |
| WRIT 101                      | College Writing I                                                                   | 4         |
| General Education Requirement |                                                                                     | 3         |
| <b>Hours</b>                  |                                                                                     | <b>16</b> |
| <b>Sophomore</b>              |                                                                                     |           |
| <b>Autumn</b>                 |                                                                                     |           |
| PHSX 311                      | Oscillations and Waves                                                              | 2         |
| PHSX 343                      | Modern Physics                                                                      | 3         |
| M 273                         | Multivariable Calculus                                                              | 4         |
| ASTR 351                      | Planetary and Exoplanet Science                                                     | 3         |
| BIOB 160<br>& BIOB 161N       | Principles of Living Systems<br>and Principles of Living Systems Lab                | 4         |
| <b>Hours</b>                  |                                                                                     | <b>16</b> |
| <b>Spring</b>                 |                                                                                     |           |
| PHSX 301                      | Intro to Theoretical Physics                                                        | 3         |
| PHSX 330                      | Communicating Physics                                                               | 3         |
| M 311                         |                                                                                     | 4         |
| STAT 342                      | Probability and Simulation                                                          | 3         |
| General Education Requirement |                                                                                     | 3         |
| <b>Hours</b>                  |                                                                                     | <b>16</b> |
| <b>Junior</b>                 |                                                                                     |           |
| <b>Autumn</b>                 |                                                                                     |           |
| CHMY 141N<br>& CHMY 142N      | College Chemistry I<br>and College Chemistry I Lab                                  | 5         |
| BIOB 260                      | Cellular and Molecular Biology                                                      | 4         |
| General Education Requirement |                                                                                     | 4         |
| Elective                      |                                                                                     | 3         |
| <b>Hours</b>                  |                                                                                     | <b>16</b> |
| <b>Spring</b>                 |                                                                                     |           |
| CHMY 143N<br>& CHMY 144N      | College Chemistry II<br>and College Chemistry II Lab                                | 5         |
| BIOB 272                      |                                                                                     |           |
| General Education Requirement |                                                                                     | 3         |
| Elective                      |                                                                                     | 3         |
| <b>Hours</b>                  |                                                                                     | <b>11</b> |
| <b>Senior</b>                 |                                                                                     |           |
| <b>Autumn</b>                 |                                                                                     |           |
| GEO 101N<br>& GEO 102N        | Introduction to Physical Geology<br>and Introduction to Physical Geology Lab        | 4         |
| CHMY 485                      | Laboratory Safety                                                                   | 1         |
| HEE 233                       |                                                                                     |           |
| EDU 222                       |                                                                                     | 3         |
| EDU 345                       |                                                                                     | 3         |
| EDU 395                       |                                                                                     | 1         |
| <b>Hours</b>                  |                                                                                     | <b>12</b> |
| <b>Spring</b>                 |                                                                                     |           |
| EDU 370                       |                                                                                     | 3         |

|                    |                               |            |
|--------------------|-------------------------------|------------|
| EDU 395            | Clinical Experience (K-12 II) | 1          |
| EDU 407E           | Ethics & Policy Issues        | 3          |
| EDU 481            | Content Area Literacy         | 3          |
| EDU 497            | Teaching and Assessing        | 4          |
| <b>Hours</b>       |                               | <b>14</b>  |
| <b>Total Hours</b> |                               | <b>116</b> |

Last updated Autumn 2024

## Astronomy Minor

### General Degree Requirements

To earn a baccalaureate degree, all students must complete successfully, in addition to any other requirements, the University of Montana General Education Requirements. Please refer to the General Education Requirements page (p. 39) for more information.

Additional requirements for graduation can be found on the Degree/Certificate Requirements for Graduation page (p. 36).

Unless otherwise noted in individual program requirements, a minimum grade point average of 2.00 in all work attempted at the University of Montana-Missoula is required for graduation. Please see the Academic Policies and Procedures page (p. 25) for information on how your GPA is calculated.

Courses taken to satisfy the requirements of a major, minor, or certificate program must be completed with a grade of C- or better unless a higher grade is noted in the program requirements.

## Minor - Astronomy

- The mathematics prerequisites for courses in the Minor in Astronomy include M 171, M 172, and M 273

### Course Requirements

| Code                                                          | Title                                                                               | Hours |
|---------------------------------------------------------------|-------------------------------------------------------------------------------------|-------|
| <b>Lower-Division Physics Courses</b>                         |                                                                                     |       |
| Complete one of the following Physics sequences: <sup>1</sup> |                                                                                     | 10    |
| Algebra- and Trigonometry-based Physics:                      |                                                                                     |       |
| PHSX 205N<br>& PHSX 206N                                      | College Physics I<br>and College Physics I Laboratory                               |       |
| PHSX 207N<br>& PHSX 208N                                      | College Physics II<br>and College Physics II Laboratory                             |       |
| Calculus-based Physics:                                       |                                                                                     |       |
| PHSX 215N<br>& PHSX 216N                                      | Fundamentals of Physics with Calculus I<br>and Physics Laboratory I with Calculus   |       |
| PHSX 217N<br>& PHSX 218N                                      | Fundamentals of Physics with Calculus II<br>and Physics Laboratory II with Calculus |       |
| <b>Lower-Division Astronomy Courses</b>                       |                                                                                     |       |
| Complete all of the following courses:                        |                                                                                     |       |
| ASTR 131N                                                     | Planetary Astronomy                                                                 | 3     |
| ASTR 132N<br>or ASTR 142N                                     | Stars, Galaxies, and the Universe<br>The Evolving Universe                          | 3-4   |
| <b>Electives</b>                                              |                                                                                     |       |
| Complete three of the following courses:                      |                                                                                     | 9     |
| ASTR 351                                                      | Planetary and Exoplanet Science                                                     |       |
| ASTR 353                                                      | Galaxies and Cosmology                                                              |       |
| ASTR 362                                                      | Observational Astronomy                                                             |       |

|                    |                                    |
|--------------------|------------------------------------|
| ASTR 363           | Stellar Astronomy & Astrophysics I |
| <b>Total Hours</b> | <b>25-26</b>                       |

<sup>1</sup> The Physics with Calculus series (PHSX 215N - PHSX 218N) is strongly recommended.

## Physics Minor

### General Degree Requirements

To earn a baccalaureate degree, all students must complete successfully, in addition to any other requirements, the University of Montana General Education Requirements. Please refer to the General Education Requirements page (p. 39) for more information.

Additional requirements for graduation can be found on the Degree/Certificate Requirements for Graduation page (p. 36).

Unless otherwise noted in individual program requirements, a minimum grade point average of 2.00 in all work attempted at the University of Montana-Missoula is required for graduation. Please see the Academic Policies and Procedures page (p. 25) for information on how your GPA is calculated.

Courses taken to satisfy the requirements of a major, minor, or certificate program must be completed with a grade of C- or better unless a higher grade is noted in the program requirements.

### Minor - Physics

- The mathematics prerequisites for courses in the Minor in Physics include M 171, M 172, M 273, and M 221.

### Course Requirements

| Code                                                                             | Title                                                                            | Hours |
|----------------------------------------------------------------------------------|----------------------------------------------------------------------------------|-------|
| <b>Required Lower-Division Courses</b>                                           |                                                                                  |       |
| Complete one of the following Physics sequences:                                 |                                                                                  | 10    |
| Algebra- and Trigonometry-based Physics:                                         |                                                                                  |       |
| PHSX 205N & PHSX 206N                                                            | College Physics I and College Physics I Laboratory                               |       |
| PHSX 207N & PHSX 208N                                                            | College Physics II and College Physics II Laboratory                             |       |
| Calculus-based Physics (strongly recommended):                                   |                                                                                  |       |
| PHSX 215N & PHSX 216N                                                            | Fundamentals of Physics with Calculus I and Physics Laboratory I with Calculus   |       |
| PHSX 217N & PHSX 218N                                                            | Fundamentals of Physics with Calculus II and Physics Laboratory II with Calculus |       |
| <b>Upper-Division Core Course</b>                                                |                                                                                  |       |
| Complete the following course:                                                   |                                                                                  |       |
| PHSX 301                                                                         | Intro to Theoretical Physics                                                     | 3     |
| <b>Electives</b>                                                                 |                                                                                  |       |
| Complete 11 credits of the following courses, 8 of which must be upper-division: |                                                                                  | 11    |
| PHSX 141N                                                                        | Einstein's Relativity                                                            |       |
| PHSX 291                                                                         | Special Topics                                                                   |       |
| PHSX 311                                                                         | Oscillations and Waves                                                           |       |
| PHSX 320                                                                         | Classical Mechanics                                                              |       |
| PHSX 323                                                                         | Intermediate Physics Lab                                                         |       |

|                    |                                        |
|--------------------|----------------------------------------|
| PHSX 327           | Optics                                 |
| PHSX 330           | Communicating Physics                  |
| PHSX 333           | Computational Physics                  |
| PHSX 343           | Modern Physics                         |
| PHSX 423           | Electricity & Magnetism I              |
| PHSX 444           | Advanced Physics Lab                   |
| PHSX 446           | Thermodynamics & Statistical Mechanics |
| PHSX 461           | Quantum Mechanics I                    |
| PHSX 462           | Quantum Mechanics II                   |
| <b>Total Hours</b> | <b>24</b>                              |

## Physics Education Minor

- This minor contains course requirements designed to meet state standards. Those interested in teaching in K-12 schools must complete the education/teaching concentration of a major in a teaching content area plus the Teacher Education Program through the Department of Teaching and Learning. Additional teaching areas can be added through completion of the education/teaching concentration of a major or education/teaching minor in that content area.
  - Secondary Education Licensure Program (<https://www.umt.edu/education/departments/teaching-and-learning/tep/default.php>)
  - Licensure Degree Requirements (p. 151)
- To complete this minor, you need to contact the Teaching and Learning Department. Approvals for this track must come from the Teaching and Learning Department.
- Individuals completing this minor must also complete the education/teaching concentration of a major in another teaching content area.

### General Degree Requirements

To earn a baccalaureate degree, all students must complete successfully, in addition to any other requirements, the University of Montana General Education Requirements. Please refer to the General Education Requirements page (p. 39) for more information.

Additional requirements for graduation can be found on the Degree/Certificate Requirements for Graduation page (p. 36).

Unless otherwise noted in individual program requirements, a minimum grade point average of 2.00 in all work attempted at the University of Montana-Missoula is required for graduation. Please see the Academic Policies and Procedures page (p. 25) for information on how your GPA is calculated.

Courses taken to satisfy the requirements of a major, minor, or certificate program must be completed with a grade of C- or better unless a higher grade is noted in the program requirements.

### Minor - Physics Education

- The mathematics prerequisites for courses in the Minor in Physics Education include M 171, M 172, M 273, and M 221.

### Course Requirements

| Code                                             | Title | Hours |
|--------------------------------------------------|-------|-------|
| <b>Required Lower-Division Courses</b>           |       |       |
| Complete one of the following Physics sequences: |       | 10    |
| Algebra- and Trigonometry-based Physics:         |       |       |

|                                                |                                                                                  |  |
|------------------------------------------------|----------------------------------------------------------------------------------|--|
| PHSX 205N & PHSX 206N                          | College Physics I and College Physics I Laboratory                               |  |
| PHSX 207N & PHSX 208N                          | College Physics II and College Physics II Laboratory                             |  |
| Calculus-based Physics (strongly recommended): |                                                                                  |  |
| PHSX 215N & PHSX 216N                          | Fundamentals of Physics with Calculus I and Physics Laboratory I with Calculus   |  |
| PHSX 217N & PHSX 218N                          | Fundamentals of Physics with Calculus II and Physics Laboratory II with Calculus |  |

**Upper-Division Core Courses**

Complete all of the following courses:

|          |                              |   |
|----------|------------------------------|---|
| PHSX 301 | Intro to Theoretical Physics | 3 |
| PHSX 320 | Classical Mechanics          | 3 |
| PHSX 330 | Communicating Physics        | 3 |
| PHSX 343 | Modern Physics               | 3 |

**Mathematics and Statistics**

Complete all of the following courses:

|                         |                                                          |     |
|-------------------------|----------------------------------------------------------|-----|
| M 171                   | Calculus I                                               | 4   |
| M 172                   | Calculus II                                              | 4   |
| STAT 216<br>or STAT 342 | Introduction to Statistics<br>Probability and Simulation | 3-4 |
| M 273                   | Multivariable Calculus                                   | 4   |
| M 274                   | Introduction to Differential Equations                   | 4   |

**Additional Science Courses**

Complete all of the following:

|                                                          |                                                                                                                      |   |
|----------------------------------------------------------|----------------------------------------------------------------------------------------------------------------------|---|
| ASTR 131N<br>or ASTR 132N                                | Planetary Astronomy<br>Stars, Galaxies, and the Universe                                                             | 3 |
| BIOB 160<br>or BIOB 170N<br>or BIOE 172N<br>or BIOO 105N | Principles of Living Systems<br>Principles of Biological Diversity<br>Introductory Ecology<br>Introduction to Botany | 3 |
| CHMY 121N                                                | Introduction to General Chemistry                                                                                    | 4 |
| CHMY 485                                                 | Laboratory Safety                                                                                                    | 1 |
| CSCI 150<br>or CSCI 151                                  | Introduction to Computer Science<br>Interdisciplinary Computer Science I                                             | 3 |

**Physics Education Requirement**

Complete the following course

|         |                                                |   |
|---------|------------------------------------------------|---|
| EDU 497 | Teaching and Assessing (Methods: 5-12 Science) | 3 |
|---------|------------------------------------------------|---|

**Total Hours** 58-59**Secondary Teaching Licensure**

For endorsement to teach this subject, a student also must gain admission to the Teacher Education Program and meet all the requirements for secondary teaching licensure (p. 151). For more information, see the Teaching and Learning Department webpage (<https://www.umt.edu/education/departments/currinst/default.php>).

**Missoula College**

Thomas Gallagher, Dean

**Mission**

The mission of Missoula College (<http://mc.umt.edu/>) is to create a comprehensive, accessible, student-centered learning environment that fosters individual growth, facilitates workforce development, and provides a foundation for advanced academic achievement.

**Vision of Excellence**

We envision a future where Missoula College is recognized as a model of excellence for two-year education in Montana, empowering students to succeed in higher education and continuing to serve the needs of the community and workforce. We elevate the awareness of two-year education as a result of our high retention, graduation and placement rates. Through this demonstration of excellence, more students will enroll in two-year colleges, more businesses and industries will partner with two-year schools, and the state will receive the benefits of a more educated citizenry/workforce.

The Missoula College offers programs and services on four campuses:

1. the River Campus at 1205 East Broadway,
2. the West Campus at 2795 37th Avenue,
3. the Mountain Campus at 32 Campus Drive, and
4. the Bitterroot Campus in Hamilton.

The student support offices are located at the River Campus. All Business Technology programs, Health Professions programs, as well as a branch of the Mansfield Library, and a dining room are located on the River Campus. All Industrial Technology programs are located on the West Campus.

Students may attend courses at four campus sites and online. Courses are scheduled at a variety of times between 7 a.m. and 10 p.m., Monday through Saturday. The Missoula College Dean's Office, department chairs, and/or program directors may be contacted for specific program and scheduling information.

**Bachelor of Applied Science Degree Program**

A Bachelor of Applied Science (B.A.S.) degree is offered by the University of Montana - Missoula in collaboration with the Missoula College. Students interested in the B.A.S. should contact the College of Humanities and Science Academic Advising office (<https://www.umt.edu/humanities-sciences/advising-center/default.php>). This degree program is available for students who have completed an Associate of Applied Science degree from an accredited institution and who wish to continue toward completing a baccalaureate degree. For more information, see the Bachelor of Applied Science (p. 208) section of the catalog.

**Associate of Applied Science and Certificate of Applied Science Programs**

The Associate of Applied Science (A.A.S.) and Certificate of Applied Science (C.A.S.) programs are designed to prepare an individual for employment in a specific career or career pathway. In some instances, particularly in Health Professions, the degree or certificate is a prerequisite for taking a licensing examination. The A.A.S. degree is not typically considered a transfer degree, although opportunities do exist at the University of Montana and some other baccalaureate degree-granting

institutions for continuing in programs such as the University's Bachelor of Applied Science degree program.

The College's Surgical Technology and Respiratory Care programs are reviewed by their respective Joint Review Committees and accredited by the Commission on Accreditation of Allied Health Education Programs. The Food Service Management program is accredited by the American Culinary Federation Educational Institute Accrediting Commission, the Paralegal Studies program is approved by the American Bar Association, and the Nursing programs are approved by the Montana Board of Nursing and accredited by Accreditation Commission for Education in Nursing (ACEN). The Pharmacy Technology Program is accredited by American Society of Health System Pharmacists/Accreditation Council for Pharmacy Education (ASHP/ACPE).

## Associate of Arts and Associate of Science Degree Programs

The Associate of Arts and Associate of Science degrees are general education transfer degrees and do not officially include a major or minor courses of study, but students may focus on specific areas of emphasis in order to satisfy the degree requirements. To receive an Associate of Arts (AA) or Associate of Science (AS) degree, students must successfully complete all the general education requirements as described by Montana Board of Regents policy 301.10 Appendix 1. The minimum grade point average for the 60 credits required for the A.A. or A.S. is 2.0. At least 30 of the 60 required credits must be earned at UM, through either Missoula College or University of Montana-Missoula.

## Credit Applicable Toward Associate of Arts and Baccalaureate Degrees

Students may count up to 15 technical course credits towards the A.A., A.S., and baccalaureate degrees (except the B.A.S.; see the B.A.S. (p. 208) section of the catalog for more information). UP to 20 technical course credits may count if the student has previously earned an A.A.S. degree. Refer to the section on Technical Courses and Credit Maximums (p. 36) in this catalog for additional information. Students should visit with their advisor for more information.

## Academic Support Services

Services designed to increase the success of students enrolled at Missoula College are available at the College. Such services include the Academic Advising Center, tutoring and computer-based academic learning tools in the Academic Support Center, study skills workshops, basic skills developmental courses, access to the Office for Disability Equity (ODE), academic and financial aid reinstatement and follow-up assistance, individual student retention services, and other learning support activities.

- Applied Arts and Sciences (p. 380)
  - Addiction Studies C.T.S. (p. 381)
  - Associate of Arts (A.A.) (p. 381)
  - Associate of Arts (A.A.) - Behavioral & Social Sciences (p. 383)
  - Associate of Arts (A.A.) - Communication Studies (p. 383)
  - Associate of Arts (A.A.) - Psychology (p. 384)
  - Associate of Arts (A.A.) - Speech Language Pathology Assistant (p. 385)
  - Associate of Science (A.S.) (p. 386)
  - Associate of Science (A.S.) - Business (p. 388)

- Associate of Science (A.S.) - Natural Sciences (p. 390)
- Associate of Science (A.S.) - Public Health (p. 392)
- General Studies Certificate (p. 394)
- Business & Technology (p. 395)
  - Accounting Fundamentals C.A.S. (p. 395)
  - Business Management A.A.S. (p. 396)
  - Business Management C.A.S. (p. 396)
  - Business Media Design C.A.S. (p. 397)
  - Cloud Computing C.T.S. (p. 398)
  - Computer Support C.A.S. (p. 398)
  - Culinary Arts C.A.S. (p. 399)
  - Customer Relations C.A.S. (p. 400)
  - Cybersecurity C.T.S. (p. 401)
  - Food Service Entrepreneurship and Hospitality A.A.S. (p. 401)
  - Information Technology & Cybersecurity A.A.S. (p. 402)
  - Legal Studies C.A.S. (p. 403)
  - Sales and Marketing C.A.S. (p. 404)
- Health Professions (p. 405)
  - Clinical Medical Assistant C.T.S. (p. 405)
  - Medical Assisting A.A.S. (p. 406)
  - Medical Claims Specialist C.T.S. (p. 407)
  - Medical Information Technology A.A.S. - Health Information Coding Specialty (p. 408)
  - Medical Information Technology A.A.S. - Medical Administrative Assisting (p. 409)
  - Medical Reception C.A.S. (p. 410)
  - Paramedicine A.A.S. (p. 411)
  - Pre-Health Professions Studies C.T.S. (p. 412)
  - Radiologic Technology A.A.S. (p. 413)
  - Registered Nursing A.S. (p. 414)
  - Respiratory Care A.A.S. (p. 416)
  - Surgical Technology A.A.S. (p. 418)
- Industrial Technology (p. 419)
  - Building Information Modeling and Computer Aided Drafting & Design (BIM-CADD) C.A.S. (p. 419)
  - Carpentry C.A.S. (p. 420)
  - Construction Helper C.T.S. (p. 421)
  - Construction Management C.A.S. (p. 421)
  - Diesel Technology A.A.S. (p. 422)
  - Green Building C.T.S. (p. 422)
  - Heavy Equipment Operation C.A.S. (p. 423)
  - Sustainable Construction Technology A.A.S. (p. 424)
  - Welding Technology A.A.S. (p. 425)
  - Welding Technology C.A.S. (p. 426)

## Applied Arts and Sciences

The Department of Applied Arts and Sciences (<http://mc.umt.edu/aasc/>) provides instruction in five disciplines:

- communication,
- mathematics,
- behavioral science and psychology,



- science, and
- writing.

Many courses from these disciplines count towards the general education requirements for the Associate of Arts (AA) and Associate of Science (AS) degrees and frequently are programmatic requirements for Associate of Applied Science (AAS) degrees and certificate programs.

- Addiction Studies C.T.S. (p. 381)
- Associate of Arts (A.A.) (p. 381)
- Associate of Arts (A.A.) - Behavioral & Social Sciences (p. 383)
- Associate of Arts (A.A.) - Communication Studies (p. 383)
- Associate of Arts (A.A.) - Psychology (p. 384)
- Associate of Arts (A.A.) - Speech Language Pathology Assistant (p. 385)
- Associate of Science (A.S.) (p. 386)
- Associate of Science (A.S.) - Business (p. 388)
- Associate of Science (A.S.) - Natural Sciences (p. 390)
- Associate of Science (A.S.) - Public Health (p. 392)
- General Studies Certificate (p. 394)

## Addiction Studies C.T.S.

- The Certificate in Addiction Studies is a set of courses that meet the required 330 hours of addiction education with a requirement of a completed accompanying degree (associate, baccalaureate, or graduate degree in specific disciplines, i.e. psychology, addictions, sociology, social work or similar emphasis areas.)
- Students may only apply for state licensing exam after completing 1000 hours of supervised internships following degree completion.
- The Certificate of Addiction Studies is designed to benefit all qualifying degrees as defined by the MCA 37-35-202.

## General Certificate Requirements

Additional requirements for graduation can be found on the Degree/Certificate Requirements for Graduation page (p. 36).

Unless otherwise noted in individual program requirements, a minimum grade point average of 2.00 in all work attempted at the University of Montana-Missoula is required for graduation. Please see the Academic Policies and Procedures page (p. 25) for information on how your GPA is calculated.

Courses taken to satisfy the requirements of a major, minor, or certificate program must be completed with a grade of C- or better unless a higher grade is noted in the program requirements.

## Online Program Option

This program may be completed in an online format (<https://catalog.umt.edu/online-programs/definitions/>). Students interested in pursuing an online degree or certificate program are strongly encouraged to contact the offering department to discuss specific program and course modalities (<https://catalog.umt.edu/online-programs/definitions/>) and create a plan of study with an academic advisor. The course requirements listed below may not be consistently offered via online delivery.

## Certificate of Technical Studies - Addiction Studies Course Requirements

| Code                                          | Title                                                               | Hours     |
|-----------------------------------------------|---------------------------------------------------------------------|-----------|
| <b>Complete all of the following courses:</b> |                                                                     |           |
| CAS 140X                                      | Addictions and Diversity                                            | 3         |
| CAS 231N                                      | Pharmacology and Addictions                                         | 3         |
| CAS 242                                       | Fundamentals of Substance Abuse and Addiction                       | 3         |
| CAS 243                                       | Substance Abuse Counseling I                                        | 3         |
| CAS 248                                       | Substance Abuse Counseling II                                       | 3         |
| CAS 252                                       | Gambling and Gaming Disorders in Addiction Counseling               | 2         |
| CAS 254                                       | Co-Occurring Disorders-Assessment & Treatment Planning              | 2         |
| CAS 260                                       | Addiction Assessment/Documentation/ Treatment Planning              | 3         |
| CAS 261                                       | Advanced Addiction Assessment/ Treatment Planning and Documentation | 3         |
| <b>Total Hours</b>                            |                                                                     | <b>25</b> |

## Associate of Arts (A.A.)

The Department of Applied Arts and Sciences offers the Associate of Arts degree. The Associate of Arts degree is considered a general education transfer degree and does not include a major or minor course of study. To receive an Associate of Arts degree, students must:

- successfully complete all lower-division general education requirements with the exception of the language requirement with a letter grade of C- or better;
- earn a minimum of 60 credits, at least 30 of which must be from the University of Montana-Missoula;
- and maintain an institutional cumulative GPA of 2.00.

Students may begin coursework in the autumn, spring, or summer semesters. Courses numbered below 100 do not count toward the 60 credit requirement or general education course requirements, but do fulfill financial aid credit load requirements.

Students planning on completing a baccalaureate degree are encouraged to select specific general education courses and electives that meet the requirements for that future major. Students work with their advisor to develop an AA degree plan to best prepare them to transition to a four-year degree.

## Baccalaureate Tracks and Emphasis Areas within the Associate of Arts Degree

Although the AA degree does not include a major or minor courses of study, students may elect to choose coursework that is part of a specific area of interest. Baccalaureate tracks are specific plans of study designed to help students earn an AA degree while simultaneously working towards baccalaureate degree requirements. Missoula College has worked with individual UM departments to forge agreements to ensure that students completing baccalaureate tracks will enter into the major with numerous major requirements already fulfilled.

Baccalaureate tracks within the Associate of Arts degree include:

- Business
- Chemical and Addiction Studies
- Communication Science and Disorders
- Early Childhood Education
- Elementary Education
- Environmental Studies
- Integrative Physiology
- Parks, Tourism, and Recreation Management
- Sociology and Criminology (for individuals attending the Montana Law Enforcement Academy, a specialized Associate of Arts degree is offered through a collaboration among Missoula College UM, the University of Montana Department Of Sociology, and the Montana Law Enforcement Academy in Helena, MT.)
- Psychology
- Sociology
- Women, Gender, and Sexuality Studies

## Concentrations within the Associate of Arts Degree

Similar to pathways or areas of emphasis within the AA degree, concentrations are meant to help students focus on a specific area of interest. Unlike areas of emphasis, these concentrations are recorded on the student’s transcript as a concentration of the AA degree itself. Concentrations of the Associate of Arts degree include:

- Behavioral & Social Sciences
- Communication Studies
- Professional Communication
- Psychology
- Speech Language Pathology Assistant

The goal of these concentrations is to provide students with an opportunity to receive an AA degree with a focus on an area that is of increasing demand to employers.

## General Associate Degree Requirements

Additional requirements for graduation can be found on the Degree/ Certificate Requirements for Graduation page (p. 36).

Unless otherwise noted in individual program requirements, a minimum grade point average of 2.00 in all work attempted at the University of Montana-Missoula is required for graduation. Please see the Academic Policies and Procedures page (p. 25) for information on how your GPA is calculated.

Courses taken to satisfy the requirements of an associate degree program must be completed with a grade of C- or better unless a higher grade is noted in the program requirements.

## Online Program Option

This program may be completed in an online format (<https://catalog.umd.edu/online-programs/definitions/>). Students interested in pursuing an online degree or certificate program are strongly encouraged to contact the offering department to discuss specific program and course modalities (<https://catalog.umd.edu/online-programs/definitions/>) and create a plan of study with an academic advisor. The course

requirements listed below may not be consistently offered via online delivery.

## Associate of Arts - General A.A.

The Associate of Arts degree has the following general requirements. Students must:

- Complete all of the university’s general education requirements (p. 39) with the exception of the language requirement and the advanced writing requirement.
  - All courses taken to satisfy general education requirements must be taken for a traditional letter grade and must be passed with a grade of C- or better.
- Complete a minimum of 60 credits.
- Earn a minimum cumulative institutional GPA of 2.0.
- Complete at least 30 of the total 60 degree credits at Missoula College or UM-Missoula.

Missoula College students are limited to enrolling in lower-division (100- and 200-level) courses only.

## Two Year Plan

| Course                                   | Title                                                                                            | Hours        |
|------------------------------------------|--------------------------------------------------------------------------------------------------|--------------|
| <b>First Year</b>                        |                                                                                                  |              |
| <b>Autumn</b>                            |                                                                                                  |              |
| ANTY 101H                                | Anthropology & the Human Experience                                                              | 3            |
| BIOB 101N<br>or BIOB 109N                | Discover Biology<br>or Montana Ecosystems                                                        | 3            |
| COLS 194                                 | Seminar/Workshop                                                                                 | 2            |
| COMX 140L                                | Introduction to Visual Rhetoric                                                                  | 3            |
| WRIT 101                                 | College Writing I                                                                                | 3-4          |
| <b>Hours</b>                             |                                                                                                  | <b>14-15</b> |
| <b>Spring</b>                            |                                                                                                  |              |
| COMX 111A<br>or CRWR 210A                | Introduction to Public Speaking<br>or Introductory Fiction Workshop                              | 3            |
| GEO 101N                                 | Introduction to Physical Geology                                                                 | 3            |
| GEO 102N                                 | Introduction to Physical Geology Lab                                                             | 1            |
| M 115<br>or M 121                        | Probability and Linear Mathematics<br>or College Algebra                                         | 3-4          |
| PSYX 100S<br>or COMX 115S                | Intro to Psychology<br>or Introduction to Interpersonal Communication                            | 3            |
| Elective                                 |                                                                                                  | 3            |
| <b>Hours</b>                             |                                                                                                  | <b>16-17</b> |
| <b>Second Year</b>                       |                                                                                                  |              |
| <b>Autumn</b>                            |                                                                                                  |              |
| CSCI 215E<br>or BGEN 220E<br>or LEG 184E | Social & Ethical Issues in CS<br>or Business Ethics and Social Responsibility<br>or Legal Ethics | 3            |
| LIT 110L<br>or ENST 231H                 | Introduction to Literature<br>or Nature and Society                                              | 3            |
| NUTR 221N<br>or PHSX 105N                | Basic Human Nutrition<br>or Fundamentals of Physical Science                                     | 3            |
| Elective                                 |                                                                                                  | 3            |
| Elective                                 |                                                                                                  | 3            |
| <b>Hours</b>                             |                                                                                                  | <b>15</b>    |
| <b>Spring</b>                            |                                                                                                  |              |
| CAS 140X<br>or COMX 212X                 | Addictions and Diversity<br>or Introduction to Intercultural Communication                       | 3            |
| CAS 231N<br>or BIOB 210N                 | Pharmacology and Addictions<br>or Communicating Biology                                          | 3            |
| LIT 120L<br>or ENST 231H                 | Poetry<br>or Nature and Society                                                                  | 3            |
| PSCI 210S                                | Intro to American Government                                                                     | 3            |

|             |       |
|-------------|-------|
| Elective    | 3     |
| Hours       | 15    |
| Total Hours | 60-62 |

*Last updated Fall 2025*

## Associate of Arts (A.A.) - Behavioral & Social Sciences

### General Associate Degree Requirements

Additional requirements for graduation can be found on the Degree/Certificate Requirements for Graduation page (p. 36).

Unless otherwise noted in individual program requirements, a minimum grade point average of 2.00 in all work attempted at the University of Montana-Missoula is required for graduation. Please see the Academic Policies and Procedures page (p. 25) for information on how your GPA is calculated.

Courses taken to satisfy the requirements of an associate degree program must be completed with a grade of C- or better unless a higher grade is noted in the program requirements.

### Online Program Option

This program may be completed in an online format (<https://catalog.umn.edu/online-programs/definitions/>). Students interested in pursuing an online degree or certificate program are strongly encouraged to contact the offering department to discuss specific program and course modalities (<https://catalog.umn.edu/online-programs/definitions/>) and create a plan of study with an academic advisor. The course requirements listed below may not be consistently offered via online delivery.

### Associate of Arts - General A.A.; Behavioral and Social Sciences Concentration

The Associate of Arts degree has the following general requirements. Students must:

- Complete all of the university's general education requirements (p. 39) with the exception of the language requirement and the advanced writing requirement.
  - All courses taken to satisfy general education requirements must be taken for a traditional letter grade and must be passed with a grade of C- or better.
- Complete a minimum of 60 credits.
- Earn a minimum cumulative institutional GPA of 2.0.
- Complete at least 30 of the total 60 degree credits at Missoula College or UM-Missoula.

Missoula College students are limited to enrolling in lower-division (100- and 200-level) courses only.

To receive to Associate of Arts with a concentration in Behavioral and Social Sciences, a student must complete the requirements specific to the concentration listed below.

### Course Requirements

Some courses required for the Associate of Arts with a concentration in Behavioral and Social Sciences satisfy multiple general education perspectives. Visit with your advisor for more information.

| Code                                          | Title                                                  | Hours |
|-----------------------------------------------|--------------------------------------------------------|-------|
| <b>Core Courses</b>                           |                                                        |       |
| Complete all of the following courses:        |                                                        |       |
| PSYX 100S                                     | Intro to Psychology                                    | 3     |
| SOCI 101S                                     | Introduction to Sociology                              | 3     |
| STAT 216                                      | Introduction to Statistics                             | 4     |
| <b>Concentration Electives</b>                |                                                        |       |
| Complete 12 credits of the following courses: |                                                        | 12    |
| ANTY 101H                                     | Anthropology & the Human Experience                    |       |
| CAS 140X                                      | Addictions and Diversity                               |       |
| CAS 231N                                      | Pharmacology and Addictions                            |       |
| CAS 242                                       | Fundamentals of Substance Abuse and Addiction          |       |
| CAS 243                                       | Substance Abuse Counseling I                           |       |
| CAS 248                                       | Substance Abuse Counseling II                          |       |
| CAS 252                                       | Gambling and Gaming Disorders in Addiction Counseling  |       |
| CAS 254                                       | Co-Occurring Disorders-Assessment & Treatment Planning |       |
| COMX 115S                                     | Introduction to Interpersonal Communication            |       |
| COMX 212X                                     | Introduction to Intercultural Communication            |       |
| ECNS 201S                                     | Principles of Microeconomics                           |       |
| PSYX 230                                      | Developmental Psychology                               |       |
| PSYX 240                                      | Fundamentals of Psychological Disorders                |       |

## Associate of Arts (A.A.) - Communication Studies

### General Associate Degree Requirements

Additional requirements for graduation can be found on the Degree/Certificate Requirements for Graduation page (p. 36).

Unless otherwise noted in individual program requirements, a minimum grade point average of 2.00 in all work attempted at the University of Montana-Missoula is required for graduation. Please see the Academic Policies and Procedures page (p. 25) for information on how your GPA is calculated.

Courses taken to satisfy the requirements of an associate degree program must be completed with a grade of C- or better unless a higher grade is noted in the program requirements.

### Online Program Option

This program may be completed in an online format (<https://catalog.umn.edu/online-programs/definitions/>). Students interested in pursuing an online degree or certificate program are strongly encouraged to contact the offering department to discuss specific program and course modalities (<https://catalog.umn.edu/online-programs/definitions/>) and create a plan of study with an academic advisor. The course

requirements listed below may not be consistently offered via online delivery.

## Associate of Arts - General A.A.; Communication Studies Concentration

The Associate of Arts degree has the following general requirements. Students must:

- Complete all of the university's general education requirements (p. 39) with the exception of the language requirement and the advanced writing requirement.
  - All courses taken to satisfy general education requirements must be taken for a traditional letter grade and must be passed with a grade of C- or better.
- Complete a minimum of 60 credits.
- Earn a minimum cumulative institutional GPA of 2.0.
- Complete at least 30 of the total 60 degree credits at Missoula College or UM-Missoula.

Missoula College students are limited to enrolling in lower-division (100- and 200-level) courses only.

In addition, to receive to Associate of Arts with a concentration in Communication Studies, a student must complete the concentration requirements listed below.

### Course Requirements

Some courses required for the Associate of Arts with a concentration in Communication Studies satisfy multiple Perspectives or GER Categories; visit with your advisor for more information.

| Code                                                                                                           | Title                                          | Hours |
|----------------------------------------------------------------------------------------------------------------|------------------------------------------------|-------|
| <b>Core Courses</b>                                                                                            |                                                |       |
| Complete all of the following courses:                                                                         |                                                |       |
| COMX 111A                                                                                                      | Introduction to Public Speaking                | 3     |
| COMX 115S                                                                                                      | Introduction to Interpersonal Communication    | 3     |
| COMX 140L                                                                                                      | Introduction to Visual Rhetoric                | 3     |
| COMX 220S                                                                                                      | Introduction to Organizational Communication   | 3     |
|                                                                                                                | or COMX 240H Introduction to Rhetorical Theory |       |
| M 115                                                                                                          | Probability and Linear Mathematics             | 3     |
| <b>Statistics</b>                                                                                              |                                                |       |
| Complete one of the following courses:                                                                         |                                                | 3-4   |
| PSYX 222                                                                                                       | Psychological Statistics                       |       |
| SOCI 202                                                                                                       | Social Statistics                              |       |
| STAT 216                                                                                                       | Introduction to Statistics                     |       |
| <b>Communication Studies Elective</b>                                                                          |                                                |       |
| Complete 6 credits in two directed elective courses. Directed electives must be approved by student's advisor. |                                                | 6     |

## Associate of Arts (A.A.) - Psychology

### General Associate Degree Requirements

Additional requirements for graduation can be found on the Degree/Certificate Requirements for Graduation page (p. 36).

Unless otherwise noted in individual program requirements, a minimum grade point average of 2.00 in all work attempted at the University of Montana-Missoula is required for graduation. Please see the Academic Policies and Procedures page (p. 25) for information on how your GPA is calculated.

Courses taken to satisfy the requirements of an associate degree program must be completed with a grade of C- or better unless a higher grade is noted in the program requirements.

## Associate of Arts - General A.A.; Psychology Concentration

The Associate of Arts degree has the following general requirements. Students must:

- Complete all of the university's general education requirements (p. 39) with the exception of the language requirement and the advanced writing requirement.
  - All courses taken to satisfy general education requirements must be taken for a traditional letter grade and must be passed with a grade of C- or better.
- Complete a minimum of 60 credits.
- Earn a minimum cumulative institutional GPA of 2.0.
- Complete at least 30 of the total 60 degree credits at Missoula College or UM-Missoula.

Missoula College students are limited to enrolling in lower-division (100- and 200-level) courses only.

In addition, to receive to Associate of Arts with a concentration in Psychology, a student must complete the concentration requirements listed below.

### Course Requirements

Some courses required for the Associate of Arts with a concentration in Professional Communication satisfy multiple Perspectives or GER Categories; visit with your advisor for more information.

| Code                                   | Title                                                             | Hours |
|----------------------------------------|-------------------------------------------------------------------|-------|
| <b>Concentration Requirements</b>      |                                                                   |       |
| Complete all of the following courses: |                                                                   |       |
| LIT 110L                               | Introduction to Literature                                        | 3     |
|                                        | or LIT 120L Poetry                                                |       |
| PSYX 100S                              | Intro to Psychology                                               | 3     |
| PSYX 120                               | Introduction to Psychological Research Methods                    | 3     |
| PSYX 230                               | Developmental Psychology                                          | 3     |
| PSYX 240                               | Fundamentals of Psychological Disorders                           | 3     |
| PSYX 250N                              | Fundamentals of Biological Psychology                             | 3     |
| PSYX 291                               | Special Topics (Capstone Course)                                  | 3     |
| M 115                                  | Probability and Linear Mathematics (or higher mathematics course) | 3     |
| STAT 216                               | Introduction to Statistics                                        | 4     |
|                                        | or PSYX 222 Psychological Statistics                              |       |

## Associate of Arts (A.A.) - Speech Language Pathology Assistant

The Associate of Arts (A.A.) with a Concentration in Speech Language Pathology Assistant allows individuals to achieve an A.A. degree within 2 years with concentrated courses of the speech language pathology assistant (SLPA) program to count toward their A.A. degree. This concentration is a collaboration between UM-Missoula College's Department of Applied Arts and Sciences and UM's School of Speech, Language, Hearing, and Occupational Sciences, which is housed in the College of Health.

### General Associate Degree Requirements

Additional requirements for graduation can be found on the Degree/Certificate Requirements for Graduation page (p. 36).

Unless otherwise noted in individual program requirements, a minimum grade point average of 2.00 in all work attempted at the University of Montana-Missoula is required for graduation. Please see the Academic Policies and Procedures page (p. 25) for information on how your GPA is calculated.

Courses taken to satisfy the requirements of an associate degree program must be completed with a grade of C- or better unless a higher grade is noted in the program requirements.

### Online Program Option

This program may be completed in an online format (<https://catalog.umd.edu/online-programs/definitions/>). Students interested in pursuing an online degree or certificate program are strongly encouraged to contact the offering department to discuss specific program and course modalities (<https://catalog.umd.edu/online-programs/definitions/>) and create a plan of study with an academic advisor. The course requirements listed below may not be consistently offered via online delivery.

## Associate of Arts - General A.A.; Speech Language Pathology Assistant Concentration

The Associate of Arts degree has the following general requirements. Students must:

- Complete all of the university's general education requirements (p. 39) with the exception of the language requirement and the advanced writing requirement.
  - All courses taken to satisfy general education requirements must be taken for a traditional letter grade and must be passed with a grade of C- or better.
- Complete a minimum of 60 credits.
- Earn a minimum cumulative institutional GPA of 2.0.
- Complete at least 30 of the total 60 degree credits at Missoula College or UM-Missoula.

Missoula College students are limited to enrolling in lower-division (100- and 200-level) courses only.

To receive the Associate of Arts with a concentration in Speech Language Pathology Assistant, a student must complete the concentration requirements listed below.

Following completion of the lower-division requirements (100- and 200-level), students must transfer to the University of Montana Mountain Campus to complete the upper-division required courses. Please see the program advisor for a sequence of courses for the program of study.

### Course Requirements

- Some courses required for the Associate of Arts with a Concentration in Speech Language Pathology Assistant satisfy multiple Perspectives or GER Categories; visit with your advisor for more information.
- Students may only register for CSD 320, 330, and 365 after transferring to the University of Montana Mountain Campus.

| Code                                   | Title                                                                            | Hours |
|----------------------------------------|----------------------------------------------------------------------------------|-------|
| <b>Core Courses</b>                    |                                                                                  |       |
| Complete all of the following courses: |                                                                                  |       |
| CSD 110                                | Foundations of Clinical Practice in Speech-Language Pathology & Audiology        | 3     |
| CSD 205                                | Clinical Application and Observations in Speech-Language Pathology and Audiology | 2     |
| CSD 210                                | Speech & Language Development                                                    | 3     |
| CSD 265                                | Developmental Speech and Language Disorders and Treatment                        | 3     |
| CSD 320                                | Clinical Phonetics                                                               | 3     |
| CSD 330                                | Anatomy and Physiology of the Speech and Swallowing Mechanism                    | 3     |
| CSD 365                                | Acquired Communication and Swallowing Disorders                                  | 3     |

### Two Year Plan

| Course                                                 | Title                                                                             | Hours        |
|--------------------------------------------------------|-----------------------------------------------------------------------------------|--------------|
| <b>First Year</b>                                      |                                                                                   |              |
| <b>Autumn</b>                                          |                                                                                   |              |
| ANTY 101H<br>or NASX 105H                              | Anthropology & the Human Experience<br>or Introduction to Native American Studies | 3            |
| BIOB 101N                                              | Discover Biology *                                                                | 3            |
| COMX 111A                                              | Introduction to Public Speaking                                                   | 3            |
| PSYX 100S                                              | Intro to Psychology *                                                             | 3            |
| WRIT 101                                               | College Writing I                                                                 | 3-4          |
| <b>Hours</b>                                           |                                                                                   | <b>15-16</b> |
| <b>Spring</b>                                          |                                                                                   |              |
| CSCI 215E                                              | Social & Ethical Issues in CS                                                     | 3            |
| COMX 140L                                              | Introduction to Visual Rhetoric                                                   | 3            |
| M 115                                                  | Probability and Linear Mathematics                                                | 3-4          |
| PHSX 105N                                              | Fundamentals of Physical Science *                                                | 3            |
| PSYX 230                                               | Developmental Psychology *                                                        | 3            |
| Complete Intradepartmental Transfer to Mountain Campus |                                                                                   |              |
| <b>Hours</b>                                           |                                                                                   | <b>15-16</b> |
| <b>Second Year</b>                                     |                                                                                   |              |
| <b>Autumn</b>                                          |                                                                                   |              |
| CSD 110                                                | Foundations of Clinical Practice in Speech-Language Pathology & Audiology         | 3            |
| CSD 210                                                | Speech & Language Development                                                     | 3            |
| CSD 222                                                | Introduction to Sound and Hearing *                                               | 3            |



|                    |                                                                                  |              |
|--------------------|----------------------------------------------------------------------------------|--------------|
| CSD 320            | Clinical Phonetics                                                               | 3            |
| <b>Hours</b>       |                                                                                  | <b>12</b>    |
| <b>Spring</b>      |                                                                                  |              |
| CSD 205            | Clinical Application and Observations in Speech-Language Pathology and Audiology | 2            |
| CSD 305            | Clinical Applications of Language Science *                                      | 3            |
| CSD 345            | Developmental Communication Disorders <sup>1</sup>                               | 3            |
| CSD 365            | Acquired Communication and Swallowing Disorders                                  | 3            |
| STAT 216           | Introduction to Statistics *                                                     | 4            |
| <b>Hours</b>       |                                                                                  | <b>15</b>    |
| <b>Total Hours</b> |                                                                                  | <b>57-59</b> |

\* Applies to the Communicative Sciences and Disorders B.A.

<sup>1</sup> Previously CSD 265

*Last Updated Fall 2025*

## Two Year Plan

| Course                                                 | Title                                                                             | Hours        |
|--------------------------------------------------------|-----------------------------------------------------------------------------------|--------------|
| <b>First Year</b>                                      |                                                                                   |              |
| <b>Autumn</b>                                          |                                                                                   |              |
| ANTY 101H<br>or NASX 105H                              | Anthropology & the Human Experience<br>or Introduction to Native American Studies | 3            |
| BIOB 101N                                              | Discover Biology *                                                                | 3            |
| COMX 111A                                              | Introduction to Public Speaking                                                   | 3            |
| PSYX 100S                                              | Intro to Psychology *                                                             | 3            |
| WRIT 101                                               | College Writing I                                                                 | 3-4          |
| <b>Hours</b>                                           |                                                                                   | <b>15-16</b> |
| <b>Spring</b>                                          |                                                                                   |              |
| CSCI 215E                                              | Social & Ethical Issues in CS                                                     | 3            |
| COMX 140L                                              | Introduction to Visual Rhetoric                                                   | 3            |
| M 115                                                  | Probability and Linear Mathematics                                                | 3-4          |
| PHSX 105N                                              | Fundamentals of Physical Science *                                                | 3            |
| PSYX 230                                               | Developmental Psychology *                                                        | 3            |
| Complete Intradepartmental Transfer to Mountain Campus |                                                                                   |              |
| <b>Hours</b>                                           |                                                                                   | <b>15-16</b> |
| <b>Summer</b>                                          |                                                                                   |              |
| CSD 205                                                | Clinical Application and Observations in Speech-Language Pathology and Audiology  | 2            |
| CSD 365                                                | Acquired Communication and Swallowing Disorders                                   | 3            |
| <b>Hours</b>                                           |                                                                                   | <b>5</b>     |
| <b>Second Year</b>                                     |                                                                                   |              |
| <b>Autumn</b>                                          |                                                                                   |              |
| CSD 110                                                | Foundations of Clinical Practice in Speech-Language Pathology & Audiology         | 3            |
| CSD 210                                                | Speech & Language Development                                                     | 3            |
| CSD 222                                                | Introduction to Sound and Hearing <sup>*1</sup>                                   | 3            |
| CSD 320                                                | Clinical Phonetics                                                                | 3            |
| CSD 330                                                | Anatomy and Physiology of the Speech and Swallowing Mechanism                     | 3            |
| <b>Hours</b>                                           |                                                                                   | <b>15</b>    |
| <b>Spring</b>                                          |                                                                                   |              |
| CSD 305                                                | Clinical Applications of Language Science *                                       | 3            |
| CSD 345                                                | Developmental Communication Disorders <sup>2</sup>                                | 3            |
| PSYX 120                                               | Introduction to Psychological Research Methods <sup>*3</sup>                      | 3            |
| STAT 216                                               | Introduction to Statistics *                                                      | 4            |
| <b>Hours</b>                                           |                                                                                   | <b>13</b>    |
| <b>Total Hours</b>                                     |                                                                                   | <b>63-65</b> |

\* Applies to the Communicative Sciences and Disorders B.A.

<sup>1</sup> Offered online in the Fall only

<sup>2</sup> Previously CSD 265

<sup>3</sup> PSYX 120 not required but offered for students who need to be full time.

*Last Updated Fall 2025*

## Associate of Science (A.S.)

The Department of Applied Arts and Sciences offers the Associate of Science degree. The Associate of Science degree is considered a general education transfer degree and does not include a major or minor course of study. To receive an Associate of Science degree, students must:

- successfully complete all lower-division general education requirements with the exception of the language requirement with a letter grade of C- or better;
- earn a minimum of 60 credits, at least 30 of which must be from the University of Montana-Missoula;
- maintain an institutional cumulative GPA of 2.00.
- Complete 9 credits of transferable coursework in the areas of Science, Technology, Engineering, and Mathematics (STEM) beyond those taken as general education requirements.

Students may begin coursework in the autumn, spring, or summer semesters. Courses numbered below 100 do not count toward the 60 credit requirement or general education course requirements, but do fulfill financial aid credit load requirements.

Students planning on completing a baccalaureate degree are encouraged to select specific general education courses and electives that meet the requirements for that future major. Students work with their advisor to develop an AS degree plan to best prepare them to transition to a four-year degree.

## General Associate Degree Requirements

Additional requirements for graduation can be found on the Degree/Certificate Requirements for Graduation page (p. 36).

Unless otherwise noted in individual program requirements, a minimum grade point average of 2.00 in all work attempted at the University of Montana-Missoula is required for graduation. Please see the Academic Policies and Procedures page (p. 25) for information on how your GPA is calculated.

Courses taken to satisfy the requirements of an associate degree program must be completed with a grade of C- or better unless a higher grade is noted in the program requirements.

## Online Program Option

This program may be completed in an online format (<https://catalog.umont.edu/online-programs/definitions/>). Students interested in pursuing an online degree or certificate program are strongly encouraged to contact the offering department to discuss specific program and course modalities (<https://catalog.umont.edu/online-programs/definitions/>) and create a plan of study with an academic advisor. The course requirements listed below may not be consistently offered via online delivery.

## Associate of Science - General A.S.

The Associate of Science (A.S.) degree has the following general requirements. Students must:

- Complete all of the university's general education requirements (p. 39) with the exception of the language requirement and the advanced writing requirement.
  - All courses taken to satisfy general education requirements must be taken for a traditional letter grade and must be passed with a grade of C- or better.
- Complete a minimum of 60 credits.
- Earn a minimum cumulative institutional GPA of 2.0.
- Complete at least 30 of the total 60 degree credits at Missoula College or UM-Missoula.
- Complete 9 credits of transferable coursework in the areas of Science, Technology, Engineering, and Mathematics (STEM) beyond those taken as general education requirements. Those courses offered at Missoula College are listed below.

Missoula College students are limited to enrolling in lower-division (100- and 200-level) courses only.

### Additional STEM Courses for the A.S. Degree

| Code                                                                                                                                                                       | Title                                | Hours |
|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------|--------------------------------------|-------|
| <b>Associate of Science STEM Courses</b>                                                                                                                                   |                                      |       |
| Complete 9 credits of the following courses in the areas of Science, Technology, Engineering, and Mathematics (STEM) beyond those taken as general education requirements. |                                      | 9     |
| M 105                                                                                                                                                                      | Contemporary Mathematics             |       |
| M 115                                                                                                                                                                      | Probability and Linear Mathematics   |       |
| M 121                                                                                                                                                                      | College Algebra                      |       |
| M 122                                                                                                                                                                      | College Trigonometry                 |       |
| M 162                                                                                                                                                                      | Applied Calculus                     |       |
| BIOB 101N                                                                                                                                                                  | Discover Biology                     |       |
| BIOB 109N                                                                                                                                                                  | Montana Ecosystems                   |       |
| BIOB 160                                                                                                                                                                   | Principles of Living Systems         |       |
| BIOB 161N                                                                                                                                                                  | Principles of Living Systems Lab     |       |
| BIOB 210N                                                                                                                                                                  | Communicating Biology                |       |
| BIOH 104N                                                                                                                                                                  | Basic Human Biology                  |       |
| BIOH 105N                                                                                                                                                                  | Basic Human Biology Laboratory       |       |
| BIOH 201N                                                                                                                                                                  | Human Anatomy & Physiology I         |       |
| BIOH 202N                                                                                                                                                                  | Human Anatomy and Physiology I Lab   |       |
| BIOH 211N                                                                                                                                                                  | Human Anatomy and Physiology II      |       |
| BIOH 212N                                                                                                                                                                  | Human Anatomy and Physiology II Lab  |       |
| BIOM 250N                                                                                                                                                                  | Microbiology for Health Sciences     |       |
| BIOM 251                                                                                                                                                                   | Microbiology Health Sciences Lab     |       |
| CAS 231N                                                                                                                                                                   | Pharmacology and Addictions          |       |
| CHMY 121N                                                                                                                                                                  | Introduction to General Chemistry    |       |
| GEO 101N                                                                                                                                                                   | Introduction to Physical Geology     |       |
| GEO 102N                                                                                                                                                                   | Introduction to Physical Geology Lab |       |
| NUTR 221N                                                                                                                                                                  | Basic Human Nutrition                |       |
| PHSX 105N                                                                                                                                                                  | Fundamentals of Physical Science     |       |
| ENST 231H                                                                                                                                                                  | Nature and Society                   |       |
| ACTG 101                                                                                                                                                                   | Accounting Procedures I              |       |
| ACTG 102                                                                                                                                                                   | Accounting Procedures II             |       |

|           |                                                        |
|-----------|--------------------------------------------------------|
| ACTG 180  | Payroll Accounting                                     |
| ACTG 201  | Principles of Financial Accounting                     |
| ACTG 202  | Principles of Managerial Accounting                    |
| ACTG 211  | Income Tax Fundamentals                                |
| ACTG 215  | Fundamentals of Government and Nonprofit Accounting    |
| AHMS 144  | Medical Terminology                                    |
| AHMS 156  | Medical Billing Fundamentals                           |
| AHMS 216  | Pharmaceutical Products                                |
| AHMS 220  | Medical Office Procedures                              |
| AHMS 252  | Computerized Medical Billing                           |
| BFIN 205S | Personal Finance                                       |
| BGEN 105S | Introduction to Business                               |
| BGEN 160S | Issues in Sustainability                               |
| BMKT 265  | Digital Marketing & CRM                                |
| CSCI 113  | Programming with C++ I                                 |
| CSCI 151  | Interdisciplinary Computer Science I                   |
| CSCI 172  | Intro to Computer Modeling                             |
| CSCI 215E | Social & Ethical Issues in CS                          |
| CSCI 221  | System Analysis and Design                             |
| CSCI 240  | Databases and SQL                                      |
| CULA 210  | Nutritional Cooking                                    |
| DDSN 113A | Technical Drafting                                     |
| DDSN 114  | Introduction to CAD                                    |
| DDSN 116  | 3D CAD                                                 |
| DDSN 244  | GIS Mapping                                            |
| DDSN 245  | Civil Drafting                                         |
| ECNS 201S | Principles of Microeconomics                           |
| GDSN 149A | Digital Imaging I                                      |
| ITS 150   | CCNA 1: Exploration                                    |
| ITS 152   | CCNA 2: Exploration                                    |
| ITS 165   | Introduction to Operating Systems and the Command Line |
| ITS 210   | Network OS - Desktop                                   |
| ITS 212   | Network OS - Server Administration                     |
| ITS 214   | Network OS - Infrastructure                            |
| ITS 221   | Project Management                                     |
| ITS 222   | Enterprise Security                                    |
| ITS 250   | CCNA 3: Exploration                                    |
| ITS 252   | CCNA 4: Exploration                                    |
| ITS 279   | Cloud Systems                                          |
| ITS 280   | Computer Repair & Maintenance                          |
| ITS 289   | Professional Certification                             |
| MART 214  | Digital Publishing & Design                            |
| MART 232  | Interactive Web II                                     |
| SRVY 230  | Intro to Surveying for Engineers                       |

## Two Year Plan

| Course                   | Title                                                 | Hours |
|--------------------------|-------------------------------------------------------|-------|
| <b>First Year</b>        |                                                       |       |
| <b>Autumn</b>            |                                                       |       |
| BIOB 109N<br>or BIOB 160 | Montana Ecosystems<br>or Principles of Living Systems | 3     |

|                           |                                                                |              |
|---------------------------|----------------------------------------------------------------|--------------|
| COMX 115S                 | Introduction to Interpersonal Communication                    | 3            |
| M 191                     | Special Topics                                                 | 3            |
| SOCI 101S<br>or PSYX 100S | Introduction to Sociology<br>or Intro to Psychology            | 3            |
| Elective                  |                                                                | 3            |
| <b>Hours</b>              |                                                                | <b>15</b>    |
| <b>Spring</b>             |                                                                |              |
| GEO 101N                  | Introduction to Physical Geology                               | 3            |
| GEO 102N                  | Introduction to Physical Geology Lab                           | 1            |
| M 121                     | College Algebra                                                | 3-4          |
| WRIT 101                  | College Writing I                                              | 3-4          |
| Elective                  |                                                                | 3            |
| <b>Hours</b>              |                                                                | <b>13-15</b> |
| <b>Second Year</b>        |                                                                |              |
| <b>Autumn</b>             |                                                                |              |
| ANTY 101H                 | Anthropology & the Human Experience                            | 3            |
| COMX 111A                 | Introduction to Public Speaking                                | 3            |
| M 122<br>or M 162         | College Trigonometry<br>or Applied Calculus                    | 3-4          |
| PHSX 105N<br>or NUTR 221N | Fundamentals of Physical Science<br>or Basic Human Nutrition   | 3            |
| Elective                  |                                                                | 3            |
| <b>Hours</b>              |                                                                | <b>15-16</b> |
| <b>Spring</b>             |                                                                |              |
| AHMS 270E<br>or BGEN 220E | Medical Ethics<br>or Business Ethics and Social Responsibility | 3            |
| BIOB 210N                 | Communicating Biology                                          | 3            |
| COMX 140L                 | Introduction to Visual Rhetoric                                | 3            |
| Elective                  |                                                                | 3            |
| Elective                  |                                                                | 3            |
| <b>Hours</b>              |                                                                | <b>15</b>    |
| <b>Total Hours</b>        |                                                                | <b>58-61</b> |

Last updated Fall 2025

## Associate of Science (A.S.) - Business

### General Associate Degree Requirements

Additional requirements for graduation can be found on the Degree/Certificate Requirements for Graduation page (p. 36).

Unless otherwise noted in individual program requirements, a minimum grade point average of 2.00 in all work attempted at the University of Montana-Missoula is required for graduation. Please see the Academic Policies and Procedures page (p. 25) for information on how your GPA is calculated.

Courses taken to satisfy the requirements of an associate degree program must be completed with a grade of C- or better unless a higher grade is noted in the program requirements.

### Online Program Option

This program may be completed in an online format (<https://catalog.umn.edu/online-programs/definitions/>). Students interested in pursuing an online degree or certificate program are strongly encouraged to contact the offering department to discuss specific program and course modalities (<https://catalog.umn.edu/online-programs/definitions/>) and create a plan of study with an academic advisor. The course

requirements listed below may not be consistently offered via online delivery.

## Associate of Science - General A.S.: Business Concentration

The Associate of Science (A.S.) degree has the following general requirements. Students must:

- Complete all of the university's general education requirements (p. 39) with the exception of the language requirement and the advanced writing requirement.
  - All courses taken to satisfy general education requirements must be taken for a traditional letter grade and must be passed with a grade of C- or better.
- Complete a minimum of 60 credits.
- Earn a minimum cumulative institutional GPA of 2.0.
- Complete at least 30 of the total 60 degree credits at Missoula College or UM-Missoula.
- Complete 9 credits of transferable coursework in the areas of Science, Technology, Engineering, and Mathematics (STEM) beyond those taken as general education requirements. Those courses offered at Missoula College are listed below.

Missoula College students are limited to enrolling in lower-division (100- and 200-level) courses only.

In addition, to receive to Associate of Science with a concentration in Business, a student must complete the concentration specific requirements listed below.

### Course Requirements

Some courses required for the Associate of Science with a concentration in Business satisfy multiple GER categories; visit with your advisor for more information.

| Code                                   | Title                                                 | Hours |
|----------------------------------------|-------------------------------------------------------|-------|
| <b>Core Courses</b>                    |                                                       |       |
| Complete all of the following courses: |                                                       |       |
| ACTG 101                               | Accounting Procedures I                               | 3     |
| ACTG 102                               | Accounting Procedures II                              | 3     |
| ACTG 202                               | Principles of Managerial Accounting                   | 3     |
| BGEN 105S                              | Introduction to Business                              | 3     |
| BGEN 220E                              | Business Ethics and Social Responsibility             | 3     |
| COMX 111A                              | Introduction to Public Speaking                       | 3     |
| CSCI 172                               | Intro to Computer Modeling                            | 3     |
| ECNS 201S                              | Principles of Microeconomics                          | 3     |
| M 115<br>or M 121                      | Probability and Linear Mathematics<br>College Algebra | 3     |
| STAT 216                               | Introduction to Statistics                            | 4     |

### Additional STEM Courses for the A.S. Degree

| Code                                                                                                                                                                       | Title | Hours |
|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-------|-------|
| <b>Associate of Science STEM Courses</b>                                                                                                                                   |       |       |
| Complete 9 credits of the following courses in the areas of Science, Technology, Engineering, and Mathematics (STEM) beyond those taken as general education requirements. |       | 9     |

|           |                                                     |
|-----------|-----------------------------------------------------|
| M 105     | Contemporary Mathematics                            |
| M 115     | Probability and Linear Mathematics                  |
| M 121     | College Algebra                                     |
| M 122     | College Trigonometry                                |
| M 162     | Applied Calculus                                    |
| BIOB 101N | Discover Biology                                    |
| BIOB 109N | Montana Ecosystems                                  |
| BIOB 160  | Principles of Living Systems                        |
| BIOB 161N | Principles of Living Systems Lab                    |
| BIOB 210N | Communicating Biology                               |
| BIOH 104N | Basic Human Biology                                 |
| BIOH 105N | Basic Human Biology Laboratory                      |
| BIOH 201N | Human Anatomy & Physiology I                        |
| BIOH 202N | Human Anatomy and Physiology I Lab                  |
| BIOH 211N | Human Anatomy and Physiology II                     |
| BIOH 212N | Human Anatomy and Physiology II Lab                 |
| BIOM 250N | Microbiology for Health Sciences                    |
| BIOM 251  | Microbiology Health Sciences Lab                    |
| CAS 231N  | Pharmacology and Addictions                         |
| CHMY 121N | Introduction to General Chemistry                   |
| GEO 101N  | Introduction to Physical Geology                    |
| GEO 102N  | Introduction to Physical Geology Lab                |
| NUTR 221N | Basic Human Nutrition                               |
| PHSX 105N | Fundamentals of Physical Science                    |
| ENST 231H | Nature and Society                                  |
| ACTG 101  | Accounting Procedures I                             |
| ACTG 102  | Accounting Procedures II                            |
| ACTG 180  | Payroll Accounting                                  |
| ACTG 201  | Principles of Financial Accounting                  |
| ACTG 202  | Principles of Managerial Accounting                 |
| ACTG 211  | Income Tax Fundamentals                             |
| ACTG 215  | Fundamentals of Government and Nonprofit Accounting |
| AHMS 144  | Medical Terminology                                 |
| AHMS 156  | Medical Billing Fundamentals                        |
| AHMS 216  | Pharmaceutical Products                             |
| AHMS 220  | Medical Office Procedures                           |
| AHMS 252  | Computerized Medical Billing                        |
| BFIN 205S | Personal Finance                                    |
| BGEN 105S | Introduction to Business                            |
| BGEN 160S | Issues in Sustainability                            |
| BMKT 265  | Social Media Strategy & Management                  |
| CSCI 113  | Programming with C++ I                              |
| CSCI 151  | Interdisciplinary Computer Science I                |
| CSCI 172  | Intro to Computer Modeling                          |
| CSCI 215E | Social & Ethical Issues in CS                       |
| CSCI 221  | System Analysis and Design                          |
| CSCI 240  | Databases and SQL                                   |
| CULA 210  | Nutritional Cooking                                 |
| DDSN 113A | Technical Drafting                                  |
| DDSN 114  | Introduction to CAD                                 |
| DDSN 116  | 3D CAD                                              |

|           |                                                        |
|-----------|--------------------------------------------------------|
| DDSN 244  | GIS Mapping                                            |
| DDSN 245  | Civil Drafting                                         |
| ECNS 201S | Principles of Microeconomics                           |
| GDSN 149A | Digital Imaging I                                      |
| ITS 150   | CCNA 1: Exploration                                    |
| ITS 152   | CCNA 2: Exploration                                    |
| ITS 165   | Introduction to Operating Systems and the Command Line |
| ITS 210   | Network OS - Desktop                                   |
| ITS 212   | Network OS - Server Administration                     |
| ITS 214   | Network OS - Infrastructure                            |
| ITS 221   | Project Management                                     |
| ITS 222   | Enterprise Security                                    |
| ITS 250   | CCNA 3: Exploration                                    |
| ITS 252   | CCNA 4: Exploration                                    |
| ITS 279   | Cloud Systems                                          |
| ITS 280   | Computer Repair & Maintenance                          |
| ITS 289   | Professional Certification                             |
| MART 214  | Digital Publishing & Design                            |
| MART 232  | Interactive Web II                                     |
| SRVY 230  | Intro to Surveying for Engineers                       |

## Two Year Plan

| Course                     | Title                                                         | Hours        |
|----------------------------|---------------------------------------------------------------|--------------|
| <b>First Year</b>          |                                                               |              |
| <b>Autumn</b>              |                                                               |              |
| BGEN 105S                  | Introduction to Business                                      | 3            |
| BIOB 109N                  | Montana Ecosystems                                            | 3            |
| COMX 111A                  | Introduction to Public Speaking                               | 3            |
| Elective                   |                                                               | 3            |
| M 115<br>or M 121          | Probability and Linear Mathematics<br>or College Algebra      | 3-4          |
| <b>Hours</b>               |                                                               | <b>15-16</b> |
| <b>Spring</b>              |                                                               |              |
| ACTG 201                   | Principles of Financial Accounting <sup>1</sup>               | 3            |
| CSCI 172                   | Intro to Computer Modeling                                    | 3            |
| ECNS 201S                  | Principles of Microeconomics                                  | 3            |
| General Education Elective |                                                               | 3            |
| WRIT 101                   | College Writing I                                             | 3-4          |
| <b>Hours</b>               |                                                               | <b>15-16</b> |
| <b>Second Year</b>         |                                                               |              |
| <b>Autumn</b>              |                                                               |              |
| ACTG 202                   | Principles of Managerial Accounting                           | 3            |
| BIOB 210N<br>or WRIT 121   | Communicating Biology<br>or Introduction to Technical Writing | 3            |
| ECNS 202S                  | Principles of Macroeconomics <sup>2</sup>                     | 3            |
| Elective                   |                                                               | 3            |
| STAT 216                   | Introduction to Statistics                                    | 4            |
| <b>Hours</b>               |                                                               | <b>16</b>    |
| <b>Spring</b>              |                                                               |              |
| BGEN 220E                  | Business Ethics and Social Responsibility                     | 3            |
| BGEN 222                   | Business Models and Operations <sup>2</sup>                   | 3            |
| BMIS 270                   | MIS Foundations for Business <sup>2</sup>                     | 3            |
| Elective                   |                                                               | 3            |
| General Education Elective |                                                               | 3            |
| <b>Hours</b>               |                                                               | <b>15</b>    |
| <b>Total Hours</b>         |                                                               | <b>61-63</b> |

<sup>1</sup> OR ACTG 101 & 102<sup>2</sup> Mountain Campus Course*Last Updated Fall 2025*

# Associate of Science (A.S.) - Natural Sciences

## General Associate Degree Requirements

Additional requirements for graduation can be found on the Degree/Certificate Requirements for Graduation page (p. 36).

Unless otherwise noted in individual program requirements, a minimum grade point average of 2.00 in all work attempted at the University of Montana-Missoula is required for graduation. Please see the Academic Policies and Procedures page (p. 25) for information on how your GPA is calculated.

Courses taken to satisfy the requirements of an associate degree program must be completed with a grade of C- or better unless a higher grade is noted in the program requirements.

## Online Program Option

This program may be completed in an online format (<https://catalog.umd.edu/online-programs/definitions/>). Students interested in pursuing an online degree or certificate program are strongly encouraged to contact the offering department to discuss specific program and course modalities (<https://catalog.umd.edu/online-programs/definitions/>) and create a plan of study with an academic advisor. The course requirements listed below may not be consistently offered via online delivery.

## Associate of Science - General A.S.: Natural Science Concentration

The Associate of Science (A.S.) degree has the following general requirements. Students must:

- Complete all of the university's general education requirements (p. 39) with the exception of the language requirement and the advanced writing requirement.
  - All courses taken to satisfy general education requirements must be taken for a traditional letter grade and must be passed with a grade of C- or better.
- Complete a minimum of 60 credits.
- Earn a minimum cumulative institutional GPA of 2.0.
- Complete at least 30 of the total 60 degree credits at Missoula College or UM-Missoula.
- Complete 9 credits of transferable coursework in the areas of Science, Technology, Engineering, and Mathematics (STEM) beyond those taken as general education requirements. Those courses offered at Missoula College are listed below.

Missoula College students are limited to enrolling in lower-division (100- and 200-level) courses only.

To receive to Associate of Arts with a concentration in Natural Sciences, a student must complete the requirements specific to the concentration listed below.

## Course Requirements

Some courses required for the Associate of Arts with a concentration in Natural Sciences satisfy multiple general education perspectives. Visit with your advisor for more information.

Students must complete one of the following advising tracks. These are advising tracks only and not official programs as recognized by the University of Montana (UM) or the Montana University System. Track information will not appear on a UM transcript, diploma, university lists, student data system, or university publication.

### Natural Sciences Exploratory Track

| Code                                                                                                              | Title                                    | Hours      |
|-------------------------------------------------------------------------------------------------------------------|------------------------------------------|------------|
| <b>Complete the following course:</b>                                                                             |                                          |            |
| BIOB 210N                                                                                                         | Communicating Biology                    | 3          |
| <b>Complete 6-7 credits of the following courses:</b>                                                             |                                          | <b>6-7</b> |
| M 121                                                                                                             | College Algebra                          |            |
| M 122                                                                                                             | College Trigonometry                     |            |
| M 162                                                                                                             | Applied Calculus                         |            |
| STAT 216                                                                                                          | Introduction to Statistics               |            |
| <b>Complete 15 credits from the following courses including a minimum of 2 courses that have a lab component:</b> |                                          | <b>15</b>  |
| BIOB 101N                                                                                                         | Discover Biology                         |            |
|                                                                                                                   | or BIOB 160 Principles of Living Systems |            |
| BIOB 161N                                                                                                         | Principles of Living Systems Lab         |            |
| BIOB 109N                                                                                                         | Montana Ecosystems                       |            |
| ENST 231H                                                                                                         | Nature and Society                       |            |
| GEO 101N                                                                                                          | Introduction to Physical Geology         |            |
| GEO 102N                                                                                                          | Introduction to Physical Geology Lab     |            |
| NUTR 221N                                                                                                         | Basic Human Nutrition                    |            |
| PHSX 105N                                                                                                         | Fundamentals of Physical Science         |            |

### Forestry Track

| Code                                                   | Title                                  | Hours |
|--------------------------------------------------------|----------------------------------------|-------|
| <b>Complete all of the following courses:</b>          |                                        |       |
| BIOB 160                                               | Principles of Living Systems           | 3     |
| BIOO 105N                                              | Introduction to Botany                 | 3     |
| CHMY 121N                                              | Introduction to General Chemistry      | 4     |
| COMX 111A                                              | Introduction to Public Speaking        | 3     |
| ECNS 201S                                              | Principles of Microeconomics           | 3     |
| M 151                                                  | Precalculus                            | 4     |
|                                                        | or M 121 College Algebra               |       |
|                                                        | & M 122 and College Trigonometry       |       |
| STAT 216                                               | Introduction to Statistics             | 4     |
| <b>Complete all of the following Forestry courses:</b> |                                        |       |
| FORS 130                                               | Introduction to Forestry Field Skills  | 2     |
| FORS 202                                               | Forest Mensuration                     | 3     |
| FORS 230                                               | Fire Management & Environmental Change | 3     |
| FORS 232                                               | Forest Insects & Diseases              | 3     |
| FORS 241N                                              | Dendrology                             | 3     |



|           |                                        |   |
|-----------|----------------------------------------|---|
| FORS 250  | Intro to GIS for Forest Mgt            | 3 |
| NRSM 211N | Soils and Water                        | 2 |
| NRSM 212N | Ecology, Physics and Taxonomy of Soils | 1 |

### Wildlife Biology Track

| Code | Title | Hours |
|------|-------|-------|
|------|-------|-------|

#### Complete all of the following courses:

|           |                                              |   |
|-----------|----------------------------------------------|---|
| CHMY 121N | Introduction to General Chemistry            | 4 |
| CHMY 123  | Introduction to Organic and Biochemistry     | 4 |
| CHMY 124  | Introduction to Organic and Biochemistry Lab | 2 |
| COMX 111A | Introduction to Public Speaking              | 3 |
| M 162     | Applied Calculus                             | 4 |
| or M 171  | Calculus I                                   |   |
| STAT 216  | Introduction to Statistics                   | 4 |

#### Complete all of the following Wildlife Biology courses:

|           |                                  |   |
|-----------|----------------------------------|---|
| BIOB 160  | Principles of Living Systems     | 3 |
| BIOB 161N | Principles of Living Systems Lab | 1 |
| BIOB 260  | Cellular and Molecular Biology   | 4 |
| BIOB 272  | Genetics and Evolution           | 4 |
| WILD 180  | Careers in Wildlife Biology      | 2 |
| WILD 274  | Human Dimensions of Wildlife     | 3 |

### Parks, Tourism, and Recreation Management Track

| Code | Title | Hours |
|------|-------|-------|
|------|-------|-------|

#### Complete all of the following courses:

|              |                                     |   |
|--------------|-------------------------------------|---|
| ACTG 201     | Principles of Financial Accounting  | 3 |
| ACTG 202     | Principles of Managerial Accounting | 3 |
| BIOB 160     | Principles of Living Systems        | 3 |
| COMX 111A    | Introduction to Public Speaking     | 3 |
| ECNS 201S    | Principles of Microeconomics        | 3 |
| M 115        | Probability and Linear Mathematics  | 4 |
| PSYX 100S    | Intro to Psychology                 | 3 |
| or SOCI 101S | Introduction to Sociology           |   |
| STAT 216     | Introduction to Statistics          | 4 |

#### Complete all of the following Parks, Tourism, and Recreation courses:

|                       |                                                                 |   |
|-----------------------|-----------------------------------------------------------------|---|
| NRSM 121S             | Environmental Science and Sustainability                        | 3 |
| or PTRM 141Y          | National Parks and American Culture                             |   |
| NRSM 211N & NRSM 212N | Soils and Water and Ecology, Physics and Taxonomy of Soils      | 3 |
| PTRM 150              | First Year Seminar in Parks, Tourism, and Recreation Management | 1 |
| PTRM 210S             | Nature Tourism & Commercial Recreation                          | 3 |
| PTRM 217S             | Parks & Outdoor Recreation Management                           | 3 |

### Environmental Studies Track

| Code | Title | Hours |
|------|-------|-------|
|------|-------|-------|

#### Complete all of the following courses:

|             |                                    |   |
|-------------|------------------------------------|---|
| CHMY 121N   | Introduction to General Chemistry  | 4 |
| BIOB 101N   | Discover Biology                   | 3 |
| or BIOB 160 | Principles of Living Systems       |   |
| M 115       | Probability and Linear Mathematics | 4 |

#### Complete all of the following Environmental Studies courses:

|           |                              |   |
|-----------|------------------------------|---|
| ENSC 105N | Environmental Science        | 3 |
| ENST 201  | Environmental Info Resources | 3 |
| ENST 225S | Sustainable Communities      | 3 |
| ENST 230H | Nature and Society           | 3 |

### Additional STEM Courses for the A.S. Degree

| Code | Title | Hours |
|------|-------|-------|
|------|-------|-------|

#### Associate of Science STEM Courses

|                                                                                                                                                                            |   |
|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------|---|
| Complete 9 credits of the following courses in the areas of Science, Technology, Engineering, and Mathematics (STEM) beyond those taken as general education requirements. | 9 |
|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------|---|

|           |                                      |  |
|-----------|--------------------------------------|--|
| M 105     | Contemporary Mathematics             |  |
| M 115     | Probability and Linear Mathematics   |  |
| M 121     | College Algebra                      |  |
| M 122     | College Trigonometry                 |  |
| M 162     | Applied Calculus                     |  |
| BIOB 101N | Discover Biology                     |  |
| BIOB 109N | Montana Ecosystems                   |  |
| BIOB 160  | Principles of Living Systems         |  |
| BIOB 161N | Principles of Living Systems Lab     |  |
| BIOB 210N | Communicating Biology                |  |
| BIOH 104N | Basic Human Biology                  |  |
| BIOH 105N | Basic Human Biology Laboratory       |  |
| BIOH 201N | Human Anatomy & Physiology I         |  |
| BIOH 202N | Human Anatomy and Physiology I Lab   |  |
| BIOH 211N | Human Anatomy and Physiology II      |  |
| BIOH 212N | Human Anatomy and Physiology II Lab  |  |
| BIOM 250N | Microbiology for Health Sciences     |  |
| BIOM 251  | Microbiology Health Sciences Lab     |  |
| CAS 231N  | Pharmacology and Addictions          |  |
| CHMY 121N | Introduction to General Chemistry    |  |
| GEO 101N  | Introduction to Physical Geology     |  |
| GEO 102N  | Introduction to Physical Geology Lab |  |
| NUTR 221N | Basic Human Nutrition                |  |
| PHSX 105N | Fundamentals of Physical Science     |  |
| ENST 231H | Nature and Society                   |  |
| ACTG 101  | Accounting Procedures I              |  |
| ACTG 102  | Accounting Procedures II             |  |
| ACTG 180  | Payroll Accounting                   |  |
| ACTG 201  | Principles of Financial Accounting   |  |
| ACTG 202  | Principles of Managerial Accounting  |  |
| ACTG 211  | Income Tax Fundamentals              |  |

|           |                                                        |
|-----------|--------------------------------------------------------|
| ACTG 215  | Fundamentals of Government and Nonprofit Accounting    |
| AHMS 144  | Medical Terminology                                    |
| AHMS 156  | Medical Billing Fundamentals                           |
| AHMS 216  | Pharmaceutical Products                                |
| AHMS 220  | Medical Office Procedures                              |
| AHMS 252  | Computerized Medical Billing                           |
| BFIN 205S | Personal Finance                                       |
| BGEN 105S | Introduction to Business                               |
| BGEN 160S | Issues in Sustainability                               |
| BMKT 265  | Digital Marketing & CRM                                |
| CSCI 113  | Programming with C++ I                                 |
| CSCI 151  | Interdisciplinary Computer Science I                   |
| CSCI 172  | Intro to Computer Modeling                             |
| CSCI 215E | Social & Ethical Issues in CS                          |
| CSCI 221  | System Analysis and Design                             |
| CSCI 240  | Databases and SQL                                      |
| CULA 210  | Nutritional Cooking                                    |
| DDSN 113A | Technical Drafting                                     |
| DDSN 114  | Introduction to CAD                                    |
| DDSN 116  | 3D CAD                                                 |
| DDSN 244  | GIS Mapping                                            |
| DDSN 245  | Civil Drafting                                         |
| ECNS 201S | Principles of Microeconomics                           |
| GDSN 149A | Digital Imaging I                                      |
| ITS 150   | CCNA 1: Exploration                                    |
| ITS 152   | CCNA 2: Exploration                                    |
| ITS 165   | Introduction to Operating Systems and the Command Line |
| ITS 210   | Network OS - Desktop                                   |
| ITS 212   | Network OS - Server Administration                     |
| ITS 214   | Network OS - Infrastructure                            |
| ITS 221   | Project Management                                     |
| ITS 222   | Enterprise Security                                    |
| ITS 250   | CCNA 3: Exploration                                    |
| ITS 252   | CCNA 4: Exploration                                    |
| ITS 279   | Cloud Systems                                          |
| ITS 280   | Computer Repair & Maintenance                          |
| ITS 289   | Professional Certification                             |
| MART 214  | Digital Publishing & Design                            |
| MART 232  | Interactive Web II                                     |
| SRVY 230  | Intro to Surveying for Engineers                       |

## Associate of Science (A.S.) - Public Health

The Associate of Science degree with a concentration in Public Health is designed to introduce the student to Public Health sciences while providing a transfer pathway toward the B.S. in Public Health. To receive an Associate of Science degree with a Concentration in Public Health, students must:

- Complete all lower-division general education requirements with a letter grade of C- or better;

- Earn a minimum of 60 credits, at least 30 of which must be from the University of Montana;
- Maintain an institutional cumulative GPA of 2.00 for all University of Montana courses taken for a traditional letter grade.
- Complete 9 credits of transferable coursework in the areas of Science, Technology, Engineering, and Mathematics (STEM) beyond those taken as general education requirements.
- Complete 9 credits of transferable Public Health coursework.

## General Associate Degree Requirements

Additional requirements for graduation can be found on the Degree/Certificate Requirements for Graduation page (p. 36).

Unless otherwise noted in individual program requirements, a minimum grade point average of 2.00 in all work attempted at the University of Montana-Missoula is required for graduation. Please see the Academic Policies and Procedures page (p. 25) for information on how your GPA is calculated.

Courses taken to satisfy the requirements of an associate degree program must be completed with a grade of C- or better unless a higher grade is noted in the program requirements.

## Associate of Science - General A.S.; Public Health Concentration

The Associate of Science (A.S.) degree has the following general requirements. Students must:

- Complete all of the university's general education requirements (p. 39) with the exception of the language requirement and the advanced writing requirement.
  - All courses taken to satisfy general education requirements must be taken for a traditional letter grade and must be passed with a grade of C- or better.
- Complete a minimum of 60 credits.
- Earn a minimum cumulative institutional GPA of 2.0.
- Complete at least 30 of the total 60 degree credits at Missoula College or UM-Missoula.
- Complete 9 credits of transferable coursework in the areas of Science, Technology, Engineering, and Mathematics (STEM) beyond those taken as general education requirements. Those courses offered at Missoula College are listed below.

Missoula College students are limited to enrolling in lower-division (100- and 200-level) courses only.

To receive to Associate of Arts with a concentration in Public Health, a student must complete the requirements specific to the concentration listed below.

## Course Requirements

**Note:** Some courses required for the Associate of Science with a concentration in Business satisfy multiple Perspectives or GER Categories; visit with your advisor for more information.

| Code                                        | Title                          | Hours     |
|---------------------------------------------|--------------------------------|-----------|
| <b>Complete 9 of the following courses:</b> |                                | <b>27</b> |
| ANTY 126                                    | Anthropology and Global Health |           |
| ANTY 220S                                   | Culture & Society              |           |
| BIOH 112                                    | Human Form and Function I      |           |

|                    |                                                   |
|--------------------|---------------------------------------------------|
| BIOH 113           | Human Form and Function II                        |
| BIOH 201N          | Human Anatomy & Physiology I                      |
| BIOH 211N          | Human Anatomy and Physiology II                   |
| BIOM 250N          | Microbiology for Health Sciences                  |
| HTH 110            | Personal Health and Wellness                      |
| KIN 201            | Basic Exercise Prescription                       |
| PUBH 155           | Reimagining Global Health: Biosocial Perspectives |
| PUBH 230           | Public Health Biology                             |
| <b>Total Hours</b> | <b>27</b>                                         |

## Additional STEM Courses for the A.S. Degree

| Code                                                                                                                                                                       | Title                                               | Hours |
|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-----------------------------------------------------|-------|
| <b>Associate of Science STEM Courses</b>                                                                                                                                   |                                                     |       |
| Complete 9 credits of the following courses in the areas of Science, Technology, Engineering, and Mathematics (STEM) beyond those taken as general education requirements. |                                                     | 9     |
| M 105                                                                                                                                                                      | Contemporary Mathematics                            |       |
| M 115                                                                                                                                                                      | Probability and Linear Mathematics                  |       |
| M 121                                                                                                                                                                      | College Algebra                                     |       |
| M 122                                                                                                                                                                      | College Trigonometry                                |       |
| M 162                                                                                                                                                                      | Applied Calculus                                    |       |
| BIOB 101N                                                                                                                                                                  | Discover Biology                                    |       |
| BIOB 109N                                                                                                                                                                  | Montana Ecosystems                                  |       |
| BIOB 160                                                                                                                                                                   | Principles of Living Systems                        |       |
| BIOB 161N                                                                                                                                                                  | Principles of Living Systems Lab                    |       |
| BIOB 210N                                                                                                                                                                  | Communicating Biology                               |       |
| BIOH 104N                                                                                                                                                                  | Basic Human Biology                                 |       |
| BIOH 105N                                                                                                                                                                  | Basic Human Biology Laboratory                      |       |
| BIOH 201N                                                                                                                                                                  | Human Anatomy & Physiology I                        |       |
| BIOH 202N                                                                                                                                                                  | Human Anatomy and Physiology I Lab                  |       |
| BIOH 211N                                                                                                                                                                  | Human Anatomy and Physiology II                     |       |
| BIOH 212N                                                                                                                                                                  | Human Anatomy and Physiology II Lab                 |       |
| BIOM 250N                                                                                                                                                                  | Microbiology for Health Sciences                    |       |
| BIOM 251                                                                                                                                                                   | Microbiology Health Sciences Lab                    |       |
| CAS 231N                                                                                                                                                                   | Pharmacology and Addictions                         |       |
| CHMY 121N                                                                                                                                                                  | Introduction to General Chemistry                   |       |
| GEO 101N                                                                                                                                                                   | Introduction to Physical Geology                    |       |
| GEO 102N                                                                                                                                                                   | Introduction to Physical Geology Lab                |       |
| NUTR 221N                                                                                                                                                                  | Basic Human Nutrition                               |       |
| PHSX 105N                                                                                                                                                                  | Fundamentals of Physical Science                    |       |
| ENST 231H                                                                                                                                                                  | Nature and Society                                  |       |
| ACTG 101                                                                                                                                                                   | Accounting Procedures I                             |       |
| ACTG 102                                                                                                                                                                   | Accounting Procedures II                            |       |
| ACTG 180                                                                                                                                                                   | Payroll Accounting                                  |       |
| ACTG 201                                                                                                                                                                   | Principles of Financial Accounting                  |       |
| ACTG 202                                                                                                                                                                   | Principles of Managerial Accounting                 |       |
| ACTG 211                                                                                                                                                                   | Income Tax Fundamentals                             |       |
| ACTG 215                                                                                                                                                                   | Fundamentals of Government and Nonprofit Accounting |       |
| AHMS 144                                                                                                                                                                   | Medical Terminology                                 |       |

|           |                                                        |
|-----------|--------------------------------------------------------|
| AHMS 156  | Medical Billing Fundamentals                           |
| AHMS 216  | Pharmaceutical Products                                |
| AHMS 220  | Medical Office Procedures                              |
| AHMS 252  | Computerized Medical Billing                           |
| BFIN 205S | Personal Finance                                       |
| BGEN 105S | Introduction to Business                               |
| BGEN 160S | Issues in Sustainability                               |
| BMKT 265  | Social Media Strategy & Management                     |
| CSCI 113  | Programming with C++ I                                 |
| CSCI 151  | Interdisciplinary Computer Science I                   |
| CSCI 172  | Intro to Computer Modeling                             |
| CSCI 215E | Social & Ethical Issues in CS                          |
| CSCI 221  | System Analysis and Design                             |
| CSCI 240  | Databases and SQL                                      |
| CULA 210  | Nutritional Cooking                                    |
| DDSN 113A | Technical Drafting                                     |
| DDSN 114  | Introduction to CAD                                    |
| DDSN 116  | 3D CAD                                                 |
| DDSN 244  | GIS Mapping                                            |
| DDSN 245  | Civil Drafting                                         |
| ECNS 201S | Principles of Microeconomics                           |
| GDSN 149A | Digital Imaging I                                      |
| ITS 150   | CCNA 1: Exploration                                    |
| ITS 152   | CCNA 2: Exploration                                    |
| ITS 165   | Introduction to Operating Systems and the Command Line |
| ITS 210   | Network OS - Desktop                                   |
| ITS 212   | Network OS - Server Administration                     |
| ITS 214   | Network OS - Infrastructure                            |
| ITS 221   | Project Management                                     |
| ITS 222   | Enterprise Security                                    |
| ITS 250   | CCNA 3: Exploration                                    |
| ITS 252   | CCNA 4: Exploration                                    |
| ITS 279   | Cloud Systems                                          |
| ITS 280   | Computer Repair & Maintenance                          |
| ITS 289   | Professional Certification                             |
| MART 214  | Digital Publishing & Design                            |
| MART 232  | Interactive Web II                                     |
| SRVY 230  | Intro to Surveying for Engineers                       |

## Two Year Plan

| Course                                    | Title                                                                           | Hours        |
|-------------------------------------------|---------------------------------------------------------------------------------|--------------|
| <b>First Year</b>                         |                                                                                 |              |
| <b>Autumn</b>                             |                                                                                 |              |
| AHMS 144<br>or AHMS 129                   | Medical Terminology<br>or Introduction to Health Professions                    | 2-3          |
| BIOB 101N<br>or BIOH 104N<br>or BIOH 105N | Discover Biology<br>or Basic Human Biology<br>or Basic Human Biology Laboratory | 3-4          |
| M 115<br>or M 121                         | Probability and Linear Mathematics <sup>1</sup><br>or College Algebra           | 3-4          |
| PUBH 101S                                 | Introduction to Public Health                                                   | 3            |
| SOCI 101S                                 | Introduction to Sociology                                                       | 3            |
| <b>Hours</b>                              |                                                                                 | <b>14-17</b> |

|                        |                                              |              |
|------------------------|----------------------------------------------|--------------|
| <b>Spring</b>          |                                              |              |
| NUTR 221N              | Basic Human Nutrition                        | 3            |
| Public Health Elective |                                              | 3            |
| STAT 216               | Introduction to Statistics                   | 4            |
| WRIT 101               | College Writing I                            | 3-4          |
| <b>Hours</b>           |                                              | <b>13-14</b> |
| <b>Second Year</b>     |                                              |              |
| <b>Autumn</b>          |                                              |              |
| ANTY 101H              | Anthropology & the Human Experience          | 3            |
| BIOH 201N              | Human Anatomy & Physiology I <sup>1</sup>    | 4            |
| BIOH 202N              | Human Anatomy and Physiology I Lab           | 0            |
| COMX 140L              | Introduction to Visual Rhetoric              | 3            |
| COMX 111A              | Introduction to Public Speaking              | 3            |
| Public Health Elective |                                              | 3            |
| <b>Hours</b>           |                                              | <b>16</b>    |
| <b>Spring</b>          |                                              |              |
| BIOB 210N              | Communicating Biology                        | 3            |
| BIOH 211N              | Human Anatomy and Physiology II <sup>1</sup> | 4            |
| BIOH 212N              | Human Anatomy and Physiology II Lab          | 0            |
| AHMS 270E              | Medical Ethics                               | 3            |
| Public Health Elective |                                              | 3            |
| Public Health Elective |                                              | 3            |
| <b>Hours</b>           |                                              | <b>16</b>    |
| <b>Total Hours</b>     |                                              | <b>59-63</b> |

<sup>1</sup> If Medical Field is the ultimate pathway.

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# General Studies Certificate

In accordance with the mission of the University of Montana-Missoula, the objectives of general education coursework are to develop competent and humane individuals who are informed, ethical, literate, and engaged citizens of local and global communities. Students should become acquainted with issues facing contemporary society, participate in the creative arts, develop an understanding of science and technology, cultivate an appreciation of the humanities, and examine the history of different American and global cultures. Upon completion of the general education requirements students should be able to articulate ideas orally and in writing, understand and critically evaluate tangible and abstract concepts, and employ mathematical and other related skills appropriate to a technologically focused society. These foundational skills are important for students continuing on in both liberal arts and professional programs of study.

The Certificate of General Studies requires completion of University of Montana’s lower-division general education requirements that reflect the Montana University System’s General Education Core. Students may use the certificate to demonstrate completion of lower-division general education requirements when transferring within the MUS or as a milestone to earning an Associate of Arts or Associate of Science degree a Missoula College, University of Montana.

## General Certificate Requirements

Additional requirements for graduation can be found on the Degree/ Certificate Requirements for Graduation page (p. 36).

Unless otherwise noted in individual program requirements, a minimum grade point average of 2.00 in all work attempted at the University of Montana-Missoula is required for graduation. Please see the Academic

Policies and Procedures page (p. 25) for information on how your GPA is calculated.

Courses taken to satisfy the requirements of a major, minor, or certificate program must be completed with a grade of C- or better unless a higher grade is noted in the program requirements.

## Online Program Option

This program may be completed in an online format (<https://catalog.umd.edu/online-programs/definitions/>). Students interested in pursuing an online degree or certificate program are strongly encouraged to contact the offering department to discuss specific program and course modalities (<https://catalog.umd.edu/online-programs/definitions/>) and create a plan of study with an academic advisor. The course requirements listed below may not be consistently offered via online delivery.

## Certificate of Applied Science - General Studies

To receive the Certificate of General Studies, students must:

- Complete the University of Montana lower-division general education requirements (p. 39) (GERs) with the exception of the language requirement that also fulfill the general education requirements outlined by the Montana University System (the MUS Core).
  - All courses taken to satisfy general education requirements must be taken for a traditional letter grade and must be passed with a grade of C- or better.
- Earn a minimum of 30 credits,
- Have a minimum cumulative institutional GPA of 2.0.
- At least 16 of the total 30 degree credits must be earned from the University of Montana-Missoula.

Missoula College students are limited to enrolling in lower-division (100- and 200-level) courses only.

Students awarded an Associate of Arts or an Associate of Science degree have been granted an exception to the language requirement. Missoula College students who continue to Mountain Campus without receiving either of these degrees must complete the language requirement unless their declared four-year major has been granted an exception.

## One Year Plan

| Course                    | Title                                                                             | Hours        |
|---------------------------|-----------------------------------------------------------------------------------|--------------|
| <b>First Year</b>         |                                                                                   |              |
| <b>Autumn</b>             |                                                                                   |              |
| ANTY 101H<br>or NASX 105H | Anthropology & the Human Experience<br>or Introduction to Native American Studies | 3            |
| BIOB 101N                 | Discover Biology                                                                  | 3            |
| PSCI 210S<br>or COMX 140L | Intro to American Government<br>or Introduction to Visual Rhetoric                | 3            |
| PSYX 100S<br>or SOCI 101S | Intro to Psychology<br>or Introduction to Sociology                               | 3            |
| WRIT 101                  | College Writing I                                                                 | 3-4          |
| <b>Hours</b>              |                                                                                   | <b>15-16</b> |
| <b>Spring</b>             |                                                                                   |              |
| BIOB 109N                 | Montana Ecosystems                                                                | 3            |
| COMX 111A                 | Introduction to Public Speaking                                                   | 3            |
| LIT 110L                  | Introduction to Literature                                                        | 3            |

|                    |                                                                   |              |
|--------------------|-------------------------------------------------------------------|--------------|
| M 105<br>or M 115  | Contemporary Mathematics<br>or Probability and Linear Mathematics | 3-4          |
| PHL 110E           | Introduction to Ethics                                            | 3            |
| <b>Hours</b>       |                                                                   | <b>15-16</b> |
| <b>Total Hours</b> |                                                                   | <b>30-32</b> |

*Last Updated Fall 2025*

## Business & Technology

The Business and Technology department of Missoula College collaborates with business and industry to prepare graduates to compete in and contribute to a dynamic global society. The department attracts and retains skilled faculty with the professional experience and theoretical background to utilize diverse instruction which reflects current and emerging business practices. Faculty actively engage students in the learning process by integrating experiential technical education and empowering students to adapt to an ever-changing world.

Students may choose from six Associate of Applied Science degree programs and four Certificate of Applied Science programs. Degree programs include Accounting Technology with an optional concentration in Computer Support; Administrative Management with an optional concentration in Social Media Management; Food Service Management; Hospitality Management; Medical Information Technology with concentrations in Health Information Coding and Medical Administrative Assisting; Paralegal Studies; and Management with concentrations in Entrepreneurship and Sales and Marketing. Certificate of Applied Science programs include Business Media Design, Culinary Arts, Customer Relations, Hospitality Management, Medical Reception, and Sales and Marketing. Certificate of Technical Skills programs include Medical Claims Service Specialist.

## Programs

- Accounting Fundamentals C.A.S. (p. 395)
- Business Management A.A.S. (p. 396)
- Business Management C.A.S. (p. 396)
- Business Media Design C.A.S. (p. 397)
- Cloud Computing C.T.S. (p. 398)
- Computer Support C.A.S. (p. 398)
- Culinary Arts C.A.S. (p. 399)
- Customer Relations C.A.S. (p. 400)
- Cybersecurity C.T.S. (p. 401)
- Food Service Entrepreneurship and Hospitality A.A.S. (p. 401)
- Information Technology & Cybersecurity A.A.S. (p. 402)
- Legal Studies C.A.S. (p. 403)
- Sales and Marketing C.A.S. (p. 404)

## Accounting Fundamentals C.A.S.

### General Certificate Requirements

Additional requirements for graduation can be found on the Degree/Certificate Requirements for Graduation page (p. 36).

Unless otherwise noted in individual program requirements, a minimum grade point average of 2.00 in all work attempted at the University of Montana-Missoula is required for graduation. Please see the Academic

Policies and Procedures page (p. 25) for information on how your GPA is calculated.

Courses taken to satisfy the requirements of a major, minor, or certificate program must be completed with a grade of C- or better unless a higher grade is noted in the program requirements.

## Certificate of Applied Science - Accounting Fundamentals

### Course Requirements

| Code                                          | Title                                | Hours        |
|-----------------------------------------------|--------------------------------------|--------------|
| <b>Complete all of the following courses:</b> |                                      |              |
| ACTG 101                                      | Accounting Procedures I              | 3            |
| ACTG 102                                      | Accounting Procedures II             | 3            |
| ACTG 130                                      | Applied Accounting & Decision Making | 3            |
| ACTG 180                                      | Payroll Accounting                   | 3            |
| BFIN 205S                                     | Personal Finance                     | 3            |
| BGEN 105S                                     | Introduction to Business             | 3            |
| BGEN 215                                      | Career Readiness                     | 3            |
| BMGT 235                                      | Management                           | 3            |
| or BMGT 245                                   | Customer Service Management          |              |
| CSCI 172                                      | Intro to Computer Modeling           | 3            |
| M 105                                         | Contemporary Mathematics             | 3-4          |
| or M 115                                      | Probability and Linear Mathematics   |              |
| WRIT 101                                      | College Writing I                    | 3            |
| <b>Total Hours</b>                            |                                      | <b>33-34</b> |

## One Year Plan

| Course                                                                 | Title                                | Hours        |
|------------------------------------------------------------------------|--------------------------------------|--------------|
| <b>First Year</b>                                                      |                                      |              |
| <b>Autumn</b>                                                          |                                      |              |
| ACTG 101                                                               | Accounting Procedures I              | 3            |
| BGEN 105S                                                              | Introduction to Business             | 3            |
| BGEN 215                                                               | Career Readiness                     | 3            |
| CSCI 172                                                               | Intro to Computer Modeling           | 3            |
| WRIT 101                                                               | College Writing I                    | 3-4          |
| Complete Graduation Application for the Accounting Fundamentals C.A.S. |                                      |              |
| <b>Hours</b>                                                           |                                      | <b>15-16</b> |
| <b>Spring</b>                                                          |                                      |              |
| ACTG 102                                                               | Accounting Procedures II             | 3            |
| ACTG 130                                                               | Applied Accounting & Decision Making | 3            |
| ACTG 180                                                               | Payroll Accounting                   | 3            |
| BFIN 205S                                                              | Personal Finance                     | 3            |
| BMGT 235                                                               | Management                           | 3            |
| or BMGT 245                                                            | Customer Service Management          |              |
| M 105                                                                  | Contemporary Mathematics             | 3-4          |
| or M 115                                                               | Probability and Linear Mathematics   |              |
| Accounting Fundamentals C.A.S. Awarded                                 |                                      |              |
| <b>Hours</b>                                                           |                                      | <b>18-19</b> |
| <b>Total Hours</b>                                                     |                                      | <b>33-35</b> |

*Last Updated Fall 2025*



## Business Management A.A.S. General Associate Degree Requirements

Additional requirements for graduation can be found on the Degree/Certificate Requirements for Graduation page (p. 36).

Unless otherwise noted in individual program requirements, a minimum grade point average of 2.00 in all work attempted at the University of Montana-Missoula is required for graduation. Please see the Academic Policies and Procedures page (p. 25) for information on how your GPA is calculated.

Courses taken to satisfy the requirements of an associate degree program must be completed with a grade of C- or better unless a higher grade is noted in the program requirements.

### Online Program Option

This program may be completed in an online format (<https://catalog.umat.edu/online-programs/definitions/>). Students interested in pursuing an online degree or certificate program are strongly encouraged to contact the offering department to discuss specific program and course modalities (<https://catalog.umat.edu/online-programs/definitions/>) and create a plan of study with an academic advisor. The course requirements listed below may not be consistently offered via online delivery.

## Associate of Applied Science - Business Management Course Requirements

| Code                                          | Title                                     | Hours |
|-----------------------------------------------|-------------------------------------------|-------|
| <b>Complete all of the following courses:</b> |                                           |       |
| ACTG 101                                      | Accounting Procedures I                   | 3     |
| ACTG 102                                      | Accounting Procedures II                  | 3     |
| ACTG 130                                      | Applied Accounting & Decision Making      | 3     |
| BGEN 105S                                     | Introduction to Business                  | 3     |
| BGEN 215                                      | Career Readiness                          | 3     |
| BGEN 220E                                     | Business Ethics and Social Responsibility | 3     |
| BFIN 205S                                     | Personal Finance                          | 3     |
| BMGT 235                                      | Management                                | 3     |
| BMGT 245                                      | Customer Service Management               | 3     |
| BMGT 298                                      | Management Internship                     | 2     |
| BMGT 299                                      | Capstone: Entrepreneurship                | 3     |
| BMKT 112                                      | Applied Sales                             | 3     |
| BMKT 225                                      | Marketing                                 | 3     |
| or BGEN 160S                                  | Issues in Sustainability                  |       |
| BMKT 240                                      | Advertising                               | 3     |
| BMKT 265                                      | Social Media Strategy & Management        | 3     |
| COMX 250                                      | Introduction to Public Relations          | 3     |
| CSCI 172                                      | Intro to Computer Modeling                | 3     |
| or CAPP 156                                   | MS Excel                                  |       |
| ECNS 201S                                     | Principles of Microeconomics              | 3     |
| M 115                                         | Probability and Linear Mathematics        | 3     |
| MART 214                                      | Digital Publishing & Design               | 3     |
| MART 232                                      | Interactive Web II                        | 3     |
| or BMKT 265                                   | Social Media Strategy & Management        |       |

|                    |                   |           |
|--------------------|-------------------|-----------|
| WRIT 101           | College Writing I | 3         |
| <b>Total Hours</b> |                   | <b>65</b> |

### Two Year Plan

| Course                                                             | Title                                                                  | Hours        |
|--------------------------------------------------------------------|------------------------------------------------------------------------|--------------|
| <b>First Year</b>                                                  |                                                                        |              |
| <b>Autumn</b>                                                      |                                                                        |              |
| BGEN 105S                                                          | Introduction to Business                                               | 3            |
| BGEN 215                                                           | Career Readiness                                                       | 3            |
| BMKT 225                                                           | Marketing                                                              | 3            |
| BMGT 235                                                           | Management                                                             | 3            |
| M 115                                                              | Probability and Linear Mathematics                                     | 3-4          |
| Complete Graduation Application for the Business Management C.A.S. |                                                                        |              |
| <b>Hours</b>                                                       |                                                                        | <b>15-16</b> |
| <b>Spring</b>                                                      |                                                                        |              |
| ACTG 101<br>or ACTG 201                                            | Accounting Procedures I<br>or Principles of Financial Accounting       | 3            |
| BFIN 205S                                                          | Personal Finance                                                       | 3            |
| BMKT 112                                                           | Applied Sales                                                          | 3            |
| CSCI 172                                                           | Intro to Computer Modeling                                             | 3            |
| WRIT 101                                                           | College Writing I                                                      | 3-4          |
| Business Management C.A.S. Awarded                                 |                                                                        |              |
| <b>Hours</b>                                                       |                                                                        | <b>15-16</b> |
| <b>Second Year</b>                                                 |                                                                        |              |
| <b>Autumn</b>                                                      |                                                                        |              |
| ACTG 102                                                           | Accounting Procedures II <sup>1</sup>                                  | 3            |
| BGEN 220E                                                          | Business Ethics and Social Responsibility                              | 3            |
| COMX 250<br>or COMX 111A                                           | Introduction to Public Relations<br>or Introduction to Public Speaking | 3            |
| ECNS 201S                                                          | Principles of Microeconomics                                           | 3            |
| MART 214                                                           | Digital Publishing & Design                                            | 3            |
| Complete Graduation Application for the Business Management A.A.S. |                                                                        |              |
| <b>Hours</b>                                                       |                                                                        | <b>15</b>    |
| <b>Spring</b>                                                      |                                                                        |              |
| ACTG 130                                                           | Applied Accounting & Decision Making                                   | 3            |
| BMGT 245                                                           | Customer Service Management                                            | 3            |
| BMGT 298                                                           | Management Internship                                                  | 2            |
| BMGT 299                                                           | Capstone: Entrepreneurship                                             | 3            |
| BMIS 270                                                           | MIS Foundations for Business                                           | 3            |
| BMKT 191                                                           | Special Topics                                                         | 3            |
| Business Management A.A.S. Awarded                                 |                                                                        |              |
| <b>Hours</b>                                                       |                                                                        | <b>17</b>    |
| <b>Total Hours</b>                                                 |                                                                        | <b>62-64</b> |

<sup>1</sup> Unless already completed ACTG 201

*Last Updated Fall 2025*

## Business Management C.A.S. General Certificate Requirements

Additional requirements for graduation can be found on the Degree/Certificate Requirements for Graduation page (p. 36).

Unless otherwise noted in individual program requirements, a minimum grade point average of 2.00 in all work attempted at the University of Montana-Missoula is required for graduation. Please see the Academic Policies and Procedures page (p. 25) for information on how your GPA is calculated.

Courses taken to satisfy the requirements of a major, minor, or certificate program must be completed with a grade of C- or better unless a higher grade is noted in the program requirements.

## Certificate of Applied Science - Business Management

### Course Requirements

| Code                                          | Title                              | Hours     |
|-----------------------------------------------|------------------------------------|-----------|
| <b>Complete all of the following courses:</b> |                                    |           |
| ACTG 101                                      | Accounting Procedures I            | 3         |
| BGEN 105S                                     | Introduction to Business           | 3         |
| BGEN 215                                      | Career Readiness                   | 3         |
| BFIN 205S                                     | Personal Finance                   | 3         |
| BMGT 235                                      | Management                         | 3         |
| BMKT 112                                      | Applied Sales                      | 3         |
| BMKT 225                                      | Marketing                          | 3         |
| CSCI 172                                      | Intro to Computer Modeling         | 3         |
| M 115                                         | Probability and Linear Mathematics | 3         |
| WRIT 101                                      | College Writing I                  | 3         |
| <b>Total Hours</b>                            |                                    | <b>30</b> |

### One Year Plan

| Course             | Title                              | Hours        |
|--------------------|------------------------------------|--------------|
| <b>First Year</b>  |                                    |              |
| <b>Autumn</b>      |                                    |              |
| BGEN 105S          | Introduction to Business           | 3            |
| BGEN 215           | Career Readiness                   | 3            |
| BMKT 112           | Applied Sales                      | 3            |
| BMKT 225           | Marketing                          | 3            |
| WRIT 101           | College Writing I                  | 3-4          |
| <b>Hours</b>       |                                    | <b>15-16</b> |
| <b>Spring</b>      |                                    |              |
| ACTG 101           | Accounting Procedures I            | 3            |
| BFIN 205S          | Personal Finance                   | 3            |
| BMGT 235           | Management                         | 3            |
| CSCI 172           | Intro to Computer Modeling         | 3            |
| M 115              | Probability and Linear Mathematics | 3-4          |
| <b>Hours</b>       |                                    | <b>15-16</b> |
| <b>Total Hours</b> |                                    | <b>30-32</b> |

*Last updated Fall 2025*

## Business Media Design C.A.S.

People respond to emotion, engagement, and strong design. Students will learn to combine their unique talents in digital media, expressive arts, visual communications, and business toward a career in media design for businesses, education or nonprofit organizations. Students will :

- learn media history and business foundations;
- work extensively in Adobe Creative Suite;
- practice effective visual composition and messaging, and
- create interesting imagery and tell compelling stories.

Projects require story development, original and edited still photographs, and original and edited audio and visual work in both still and time-based mediums. Graduates are prepared for immediate skill application.

Successful completion of the C.A.S. meets prerequisites required for entry into the undergraduate programs for UM s Media Arts.

### Student Outcomes:

- Gain foundational knowledge in digital and information technologies, the nature of business enterprise, media history, typography, visual symbols, art, and artistic aesthetics and expression.
- Create, edit, and design audio/visual work in both the still image and time based mediums that focus on artistic expression and its relationship to digital technology.
- Create business documents and publications using common business applications while following ethical, research, and industry standard guiding principles and best practices.
- Assemble web assets needed to construct a complete website using current W3C web html document type standards, Search Engine Optimization strategies, and best web practices for file and domain management, container layout, navigation, and attractive web arrangement using principles and elements of design in an accessible web format.
- Plan, create, and organize artistically pleasing and effective print layouts based on the intended audience, organizational goals, and sound design through typography and imagery.
- Use photo editing software to create, edit and customize digital images in appropriate image size, resolution, and file type for the intended publication medium.

## General Certificate Requirements

Additional requirements for graduation can be found on the Degree/ Certificate Requirements for Graduation page (p. 36).

Unless otherwise noted in individual program requirements, a minimum grade point average of 2.00 in all work attempted at the University of Montana-Missoula is required for graduation. Please see the Academic Policies and Procedures page (p. 25) for information on how your GPA is calculated.

Courses taken to satisfy the requirements of a major, minor, or certificate program must be completed with a grade of C- or better unless a higher grade is noted in the program requirements.

## Certificate of Applied Science - Business Media Design

### Course Requirements

| Code                                          | Title                                                    | Hours |
|-----------------------------------------------|----------------------------------------------------------|-------|
| <b>Complete all of the following courses:</b> |                                                          |       |
| BGEN 105S                                     | Introduction to Business                                 | 3     |
| BGEN 215                                      | Career Readiness                                         | 3     |
| COMX 115S                                     | Introduction to Interpersonal Communication              | 3     |
|                                               | or COMX 212X Introduction to Intercultural Communication |       |
| GDSN 149A                                     | Digital Imaging I                                        | 3     |
| M 115                                         | Probability and Linear Mathematics                       | 3     |
| JRNL 100H                                     | Journalism and American Society                          | 3     |
|                                               | or MART 201H History of Digital Arts & Culture           |       |
| MART 101L                                     | Intro to Media Arts                                      | 3     |
| MART 112A                                     | Introduction to Film Editing                             | 3     |
|                                               | or JRNL 257A Beginning Video and Photojournalism         |       |

|             |                             |    |
|-------------|-----------------------------|----|
| MART 214    | Digital Publishing & Design | 3  |
| MART 232    | Interactive Web II          | 3  |
| WRIT 101    | College Writing I           | 3  |
| Total Hours |                             | 33 |

One Year Plan

| Course                                                               | Title                                                                                         | Hours |
|----------------------------------------------------------------------|-----------------------------------------------------------------------------------------------|-------|
| First Year                                                           |                                                                                               |       |
| Autumn                                                               |                                                                                               |       |
| BGEN 105S                                                            | Introduction to Business                                                                      | 3     |
| COMX 115S<br>or COMX 212X                                            | Introduction to Interpersonal Communication<br>or Introduction to Intercultural Communication | 3     |
| GDSN 149A                                                            | Digital Imaging I                                                                             | 3     |
| MART 101L                                                            | Intro to Media Arts                                                                           | 3     |
| MART 214                                                             | Digital Publishing & Design                                                                   | 3     |
| WRIT 101                                                             | College Writing I                                                                             | 3-4   |
| Complete Graduation Application for the C.A.S. Business Media Design |                                                                                               |       |
| Hours                                                                |                                                                                               | 18-19 |
| Spring                                                               |                                                                                               |       |
| BGEN 215                                                             | Career Readiness                                                                              | 3     |
| CAPP 154                                                             | MS Word                                                                                       | 3     |
| JRNL 100H<br>or MART 201H                                            | Journalism and American Society<br>or History of Digital Arts & Culture                       | 3     |
| MART 112A<br>or JRNL 257A                                            | Introduction to Film Editing<br>or Beginning Video and Photojournalism                        | 3     |
| MART 232                                                             | Interactive Web II                                                                            | 3     |
| M 115                                                                | Probability and Linear Mathematics                                                            | 3-4   |
| Business Media Design C.A.S Awarded                                  |                                                                                               |       |
| Hours                                                                |                                                                                               | 18-19 |
| Total Hours                                                          |                                                                                               | 36-38 |

Last Updated Fall 2025

Cloud Computing C.T.S.

The Certificate of Technical Skills in Cloud Computing is designed to provide the foundations for students to understand, use, and provision cloud resources. As cloud computing becomes ever more prevalent in society these skills become ever more necessary. Students will gain competence in general networking and network infrastructure; installation, use, and administration of Operating Systems; Virtualization; fundamental security concepts; and cloud computing concepts, use, and provisioning.

This certificate is mostly a subset of the courses leading to an Associate of Applied Science in Information Technology (either concentration: Network Administration and Security or Programming and Application Development) as well as closely aligned with a BS in Management Information Systems. It is expected that students completing those degrees could complete the certificate with the addition of one or two courses.

General Certificate Requirements

Additional requirements for graduation can be found on the Degree/ Certificate Requirements for Graduation page (p. 36).

Unless otherwise noted in individual program requirements, a minimum grade point average of 2.00 in all work attempted at the University of Montana-Missoula is required for graduation. Please see the Academic

Policies and Procedures page (p. 25) for information on how your GPA is calculated.

Courses taken to satisfy the requirements of a major, minor, or certificate program must be completed with a grade of C- or better unless a higher grade is noted in the program requirements.

Certificate of Technical Studies - Cloud Computing

- Only Mountain Campus College of Business students may register for BMIS 326, BMIS 471, and BMIS 472.

Course Requirements

| Code                                   | Title                                                  | Hours |
|----------------------------------------|--------------------------------------------------------|-------|
| Complete all of the following courses: |                                                        |       |
| CSCI 240                               | Databases and SQL                                      | 3     |
| or BMIS 326                            | Introduction to Data Analytics                         |       |
| ITS 150                                | CCNA 1: Exploration                                    | 3     |
| ITS 165                                | Introduction to Operating Systems and the Command Line | 3     |
| or BMIS 471                            | Fundamentals of Network & Cybersecurity                |       |
| ITS 212                                | Network OS - Server Administration                     | 3     |
| or BMIS 472                            | Cybersecurity Management Capstone                      |       |
| ITS 279                                | Cloud Systems                                          | 3     |
| Total Hours                            |                                                        | 15    |

One Year Plan

| Course      | Title                                                               | Hours |
|-------------|---------------------------------------------------------------------|-------|
| First Year  |                                                                     |       |
| Autumn      |                                                                     |       |
| CSCI 240    | Databases and SQL <sup>1</sup>                                      | 3     |
| ITS 150     | CCNA 1: Exploration                                                 | 3     |
| ITS 165     | Introduction to Operating Systems and the Command Line <sup>2</sup> | 3     |
| ITS 212     | Network OS - Server Administration <sup>3</sup>                     | 3     |
| Hours       |                                                                     | 12    |
| Spring      |                                                                     |       |
| ITS 279     | Cloud Systems                                                       | 3     |
| Hours       |                                                                     | 3     |
| Total Hours |                                                                     | 15    |

<sup>1</sup> Missoula College students take CSCI 240 & College of Business students take BMIS 326.  
<sup>2</sup> Missoula College students take IT 165 & College of Business students take BMIS 471.  
<sup>3</sup> Missoula College students take ITS 212 & College of Business students take BMIS 472.

Last updated Fall 2025

Computer Support C.A.S.

Computer Support is a 30-credit certificate program that prepares students for entry-level positions in the computing field. Required coursework includes programming, operating systems, networking, PC hardware, data modeling, and web technologies. Graduates pursue careers as help desk technicians, computer repair professionals, and

computer support specialists. Coursework for the certificate program also leads to the A.A.S. degree in Information Technology.

## General Certificate Requirements

Additional requirements for graduation can be found on the Degree/Certificate Requirements for Graduation page (p. 36).

Unless otherwise noted in individual program requirements, a minimum grade point average of 2.00 in all work attempted at the University of Montana-Missoula is required for graduation. Please see the Academic Policies and Procedures page (p. 25) for information on how your GPA is calculated.

Courses taken to satisfy the requirements of a major, minor, or certificate program must be completed with a grade of C- or better unless a higher grade is noted in the program requirements.

## Certificate of Applied Science - Computer Support

### Course Requirements

| Code                                          | Title                                                  | Hours        |
|-----------------------------------------------|--------------------------------------------------------|--------------|
| <b>Complete all of the following courses:</b> |                                                        |              |
| BGEN 105S                                     | Introduction to Business                               | 3            |
| CSCI 150                                      | Introduction to Computer Science                       | 3            |
| CSCI 172                                      | Intro to Computer Modeling                             | 3            |
| ITS 150                                       | CCNA 1: Exploration                                    | 3            |
| ITS 165                                       | Introduction to Operating Systems and the Command Line | 3            |
| ITS 212                                       | Network OS - Server Administration                     | 3            |
| ITS 279                                       | Cloud Systems                                          | 3            |
| ITS 280                                       | Computer Repair & Maintenance                          | 3            |
| M 115                                         | Probability and Linear Mathematics                     | 3-4          |
| or M 121                                      | College Algebra                                        |              |
| or M 151                                      | Precalculus                                            |              |
| WRIT 101                                      | College Writing I                                      | 3            |
| <b>Total Hours</b>                            |                                                        | <b>30-31</b> |

## One Year Plan

| Course            | Title                                                  | Hours        |
|-------------------|--------------------------------------------------------|--------------|
| <b>First Year</b> |                                                        |              |
| <b>Autumn</b>     |                                                        |              |
| BGEN 105S         | Introduction to Business                               | 3            |
| CSCI 150          | Introduction to Computer Science                       | 3            |
| ITS 150           | CCNA 1: Exploration                                    | 3            |
| ITS 165           | Introduction to Operating Systems and the Command Line | 3            |
| M 115             | Probability and Linear Mathematics                     | 3-4          |
| or M 121          | or College Algebra                                     |              |
| or M 151          | or Precalculus                                         |              |
| WRIT 101          | College Writing I                                      | 3-4          |
|                   | <b>Hours</b>                                           | <b>18-20</b> |
| <b>Spring</b>     |                                                        |              |
| CSCI 151          | Interdisciplinary Computer Science I                   | 3            |
| CSCI 172          | Intro to Computer Modeling                             | 3            |
| ITS 212           | Network OS - Server Administration                     | 3            |
| ITS 279           | Cloud Systems                                          | 3            |

|         |                               |              |
|---------|-------------------------------|--------------|
| ITS 280 | Computer Repair & Maintenance | 3            |
|         | <b>Hours</b>                  | <b>15</b>    |
|         | <b>Total Hours</b>            | <b>33-35</b> |

*Last updated Fall 2025*

## Culinary Arts C.A.S.

Students entering the Culinary Arts Certificate program or Food Service Management degree program prepare for careers in the hospitality industry. Students develop the skills needed to then seek employment in hotels, restaurants, resorts, casinos, clubs, catering, and corporate dining. Culinary careers encompass restaurant management, sales, product development, and entrepreneurship.

To meet the growing demand of the hospitality industry, two program options are available. Students may earn a Culinary Arts Certificate of Applied Science or a Food Service Management Associate of Applied Science degree.

The Culinary Arts certificate program is three semesters and provides an introduction to the field of culinary arts. Students prepare for an entry-level position in the expanding and challenging food service industry. This program incorporates comprehensive hands-on learning experiences complemented by supportive courses designed to prepare students for a wide range of career opportunities. This program also allows for a seamless transition into the Food Service Management degree.

## General Certificate Requirements

Additional requirements for graduation can be found on the Degree/Certificate Requirements for Graduation page (p. 36).

Unless otherwise noted in individual program requirements, a minimum grade point average of 2.00 in all work attempted at the University of Montana-Missoula is required for graduation. Please see the Academic Policies and Procedures page (p. 25) for information on how your GPA is calculated.

Courses taken to satisfy the requirements of a major, minor, or certificate program must be completed with a grade of C- or better unless a higher grade is noted in the program requirements.

## Certificate of Applied Science - Culinary Arts

### Course Requirements

| Code                                          | Title                                         | Hours |
|-----------------------------------------------|-----------------------------------------------|-------|
| <b>Complete all of the following courses:</b> |                                               |       |
| ANTY 133X                                     | Food and Culture                              | 3     |
| CULA 100                                      | Culinary Arts Fundamentals                    | 2     |
| CULA 101                                      | Introduction to Knife Skills and Butchery     | 2     |
| CULA 105                                      | Food Service Sanitation                       | 2     |
| CULA 157                                      | Pantry & Garde Manger                         | 3     |
| CULA 160                                      | Soups, Stocks, & Sauces                       | 3     |
| CULA 161                                      | Meats & Vegetables                            | 3     |
| CULA 162                                      | Storeroom Management and Receiving Operations | 2     |
| CULA 165                                      | Baking & Pastry                               | 5     |

|                    |                          |           |
|--------------------|--------------------------|-----------|
| M 105              | Contemporary Mathematics | 3         |
| NUTR 221N          | Basic Human Nutrition    | 3         |
| WRIT 101           | College Writing I        | 3         |
| <b>Total Hours</b> |                          | <b>34</b> |

## One Year Plan

| Course                                    | Title                                                          | Hours        |
|-------------------------------------------|----------------------------------------------------------------|--------------|
| <b>First Year</b>                         |                                                                |              |
| <b>Autumn</b>                             |                                                                |              |
| CULA 100                                  | Culinary Arts Fundamentals                                     | 2            |
| CULA 101                                  | Introduction to Knife Skills and Butchery                      | 2            |
| CULA 105                                  | Food Service Sanitation                                        | 2            |
| CULA 160                                  | Soups, Stocks, & Sauces                                        | 3            |
| CULA 162                                  | Storeroom Management and Receiving Operations                  | 2            |
| NUTR 221N                                 | Basic Human Nutrition                                          | 3            |
| WRIT 101                                  | College Writing I                                              | 3-4          |
| <b>Hours</b>                              |                                                                | <b>17-18</b> |
| <b>Spring</b>                             |                                                                |              |
| CULA 161                                  | Meats & Vegetables                                             | 3            |
| CULA 165                                  | Baking & Pastry                                                | 5            |
| CULA 157                                  | Pantry & Garde Manger                                          | 3            |
| ANTY 133X<br>or ANTY 141H<br>or PSYX 100S | Food and Culture<br>or The Silk Road<br>or Intro to Psychology | 3            |
| M 105                                     | Contemporary Mathematics                                       | 3-4          |
| <b>Hours</b>                              |                                                                | <b>17-18</b> |
| <b>Total Hours</b>                        |                                                                | <b>34-36</b> |

*Last updated Fall 2025*

## Customer Relations C.A.S.

The Customer Relations Certificate prepares students to give customers what they expect, and then give them more! Increase your competitive advantage by creating a service culture, building and maintaining relationships, and developing customer service management systems.

Core topics include:

- Communication verbal/nonverbal, navigate challenges, effective conflict resolution, and listening skills
- Manage interpersonal relationships and build teams
- Public relations in organizations, reputation management and trust, and effective internal and external customer relationships.

Learn to turn common problems into service opportunities! Emphasis in business, computers, communications, and exceptional service skills, add to your value as a customer relations professional. Customer Relations can be earned independently, or combined with second-year curriculum toward an Associate of Applied Science degree in Administrative Management.

This certificate is offered fully online. Note: Second year A.A.S. curriculum is not available fully online. Graduates are prepared for work as customer service representatives and managers in a variety of industries.

Student Outcomes:

Upon completion of the program, students will:

- Formulate service policies for excellent customer service management.

- Apply service-level decisions to develop staff, enhance customer loyalty, and deal with challenges and conflicts while serving both internal and external customers.
- Demonstrate the workplace skills of effective communication (oral, written, nonverbal), problem-solving, managing interpersonal relationships and collaborating with teams, thinking critically, and leadership.
- Ethically use research and the tools of technology to create and organize business documents efficiently, accurately, and artfully designed.
- Understand, appreciate, and recognize opportunities of diverse populations and cultures.

Related Job Titles:

- Customer Service Representative
- Customer Care
- Call Centers
- Client Relations
- Client Services
- Guest Services
- Information Clerk
- Receptionist

## General Certificate Requirements

Additional requirements for graduation can be found on the Degree/Certificate Requirements for Graduation page (p. 36).

Unless otherwise noted in individual program requirements, a minimum grade point average of 2.00 in all work attempted at the University of Montana-Missoula is required for graduation. Please see the Academic Policies and Procedures page (p. 25) for information on how your GPA is calculated.

Courses taken to satisfy the requirements of a major, minor, or certificate program must be completed with a grade of C- or better unless a higher grade is noted in the program requirements.

## Online Program Option

This program may be completed in an online format (<https://catalog.umd.edu/online-programs/definitions/>). Students interested in pursuing an online degree or certificate program are strongly encouraged to contact the offering department to discuss specific program and course modalities (<https://catalog.umd.edu/online-programs/definitions/>) and create a plan of study with an academic advisor. The course requirements listed below may not be consistently offered via online delivery.

## Certificate of Applied Science - Customer Relations

### Course Requirements

| Code                                          | Title                                     | Hours |
|-----------------------------------------------|-------------------------------------------|-------|
| <b>Complete all of the following courses:</b> |                                           |       |
| BGEN 105S                                     | Introduction to Business                  | 3     |
| BGEN 215                                      | Career Readiness                          | 3     |
| BGEN 220E                                     | Business Ethics and Social Responsibility | 3     |



|                    |                                             |              |
|--------------------|---------------------------------------------|--------------|
| BMGT 245           | Customer Service Management                 | 3            |
| CAPP 154           | MS Word                                     | 3            |
| COMX 115S          | Introduction to Interpersonal Communication | 3            |
| COMX 250           | Introduction to Public Relations            | 3            |
| CSCI 172           | Intro to Computer Modeling                  | 3            |
| M 105              | Contemporary Mathematics                    | 3-4          |
| or M 115           | Probability and Linear Mathematics          |              |
| WRIT 101           | College Writing I                           | 3            |
| <b>Total Hours</b> |                                             | <b>30-31</b> |

## One Year Plan

| Course             | Title                                       | Hours        |
|--------------------|---------------------------------------------|--------------|
| <b>First Year</b>  |                                             |              |
| <b>Autumn</b>      |                                             |              |
| BGEN 105S          | Introduction to Business                    | 3            |
| CAPP 154           | MS Word                                     | 3            |
| COMX 250           | Introduction to Public Relations            | 3            |
| M 105              | Contemporary Mathematics                    | 3-4          |
| or M 115           | Probability and Linear Mathematics          |              |
| WRIT 101           | College Writing I                           | 3-4          |
| <b>Hours</b>       |                                             | <b>15-17</b> |
| <b>Spring</b>      |                                             |              |
| BGEN 215           | Career Readiness                            | 3            |
| BGEN 220E          | Business Ethics and Social Responsibility   | 3            |
| BMGT 245           | Customer Service Management                 | 3            |
| COMX 115S          | Introduction to Interpersonal Communication | 3            |
| CSCI 172           | Intro to Computer Modeling                  | 3            |
| <b>Hours</b>       |                                             | <b>15</b>    |
| <b>Total Hours</b> |                                             | <b>30-32</b> |

*Last updated Fall 2025*

## Cybersecurity C.T.S.

The Certificate of Technical Studies in Cybersecurity is meant to provide students with practical knowledge and skills in cybersecurity, including knowledge about basic networking, operating systems, network administration, multiple aspects of cybersecurity, and the policy and legal ramifications of cybersecurity. The curriculum is aligned to the National Security Agency (NSA) National Centers of Academic Excellence in Cyber Defense (CAE-CD) curriculum Knowledge Units.

This certificate is a subset of courses leading to the Associate of Applied Science in Information Technology and Cybersecurity.

Missoula College is designated as a National Center of Academic Excellence in Cyber Defense (CAE-CD). Students completing this certificate will gain a notation on their transcripts recognizing this achievement and its relation to the CAE-CD curriculum.

## General Certificate Requirements

Additional requirements for graduation can be found on the Degree/Certificate Requirements for Graduation page (p. 36).

Unless otherwise noted in individual program requirements, a minimum grade point average of 2.00 in all work attempted at the University of Montana-Missoula is required for graduation. Please see the Academic

Policies and Procedures page (p. 25) for information on how your GPA is calculated.

Courses taken to satisfy the requirements of a major, minor, or certificate program must be completed with a grade of C- or better unless a higher grade is noted in the program requirements.

## Online Program Option

This program may be completed in an online format (<https://catalog.umn.edu/online-programs/definitions/>). Students interested in pursuing an online degree or certificate program are strongly encouraged to contact the offering department to discuss specific program and course modalities (<https://catalog.umn.edu/online-programs/definitions/>) and create a plan of study with an academic advisor. The course requirements listed below may not be consistently offered via online delivery.

## Certificate of Technical Studies - Cybersecurity

### Course Requirements

| Code                                          | Title                              | Hours     |
|-----------------------------------------------|------------------------------------|-----------|
| <b>Complete all of the following courses:</b> |                                    |           |
| CSCI 215E                                     | Social & Ethical Issues in CS      | 3         |
| ITS 150                                       | CCNA 1: Exploration                | 3         |
| ITS 212                                       | Network OS - Server Administration | 3         |
| ITS 222                                       | Enterprise Security                | 3         |
| <b>Total Hours</b>                            |                                    | <b>12</b> |

## One Year Plan

| Course             | Title                              | Hours     |
|--------------------|------------------------------------|-----------|
| <b>First Year</b>  |                                    |           |
| <b>Autumn</b>      |                                    |           |
| CSCI 215E          | Social & Ethical Issues in CS      | 3         |
| ITS 212            | Network OS - Server Administration | 3         |
| <b>Hours</b>       |                                    | <b>6</b>  |
| <b>Spring</b>      |                                    |           |
| ITS 150            | CCNA 1: Exploration                | 3         |
| ITS 222            | Enterprise Security                | 3         |
| <b>Hours</b>       |                                    | <b>6</b>  |
| <b>Total Hours</b> |                                    | <b>12</b> |

*Last updated Fall 2025*

## Food Service Entrepreneurship and Hospitality A.A.S.

The Food Service Entrepreneurship and Hospitality program culminates in an Associate of Applied Science Degree. This program combines theory, practical training, and industry experience to prepare students for entry-level and management positions in the diverse and dynamic hospitality industry. The degree program is designed to continue principles taught in the Culinary Arts certificate program. The spectrum of learning is expanded to include more in-depth professional studies thereby enhancing employment options. Accreditation by the American Culinary Federation ensures graduates' eligibility for certification as an ACF Certified Culinarian.

Technical subject areas include introduction to the industry, basic baking, patisserie, cost control, dining room service, Garde manger, nutritional cooking, fundamental cooking principles, short order cookery, a la carte stations, menu planning, supervised internship, and the recognized sanitation certificate awarded by the National Restaurant Association Educational Foundation.

## General Associate Degree Requirements

Additional requirements for graduation can be found on the Degree/Certificate Requirements for Graduation page (p. 36).

Unless otherwise noted in individual program requirements, a minimum grade point average of 2.00 in all work attempted at the University of Montana-Missoula is required for graduation. Please see the Academic Policies and Procedures page (p. 25) for information on how your GPA is calculated.

Courses taken to satisfy the requirements of an associate degree program must be completed with a grade of C- or better unless a higher grade is noted in the program requirements.

## Associate of Applied Science - Food Service Entrepreneurship and Hospitality

### Course Requirements

| Code                                          | Title                                                                          | Hours |
|-----------------------------------------------|--------------------------------------------------------------------------------|-------|
| <b>Complete all of the following courses:</b> |                                                                                |       |
| ACTG 101<br>or ACTG 201                       | Accounting Procedures I<br>Principles of Financial Accounting                  | 3     |
| ANTY 133X<br>or ANTY 141H<br>or PSYX 100S     | Food and Culture<br>The Silk Road<br>Intro to Psychology                       | 3     |
| BGEN 105S                                     | Introduction to Business                                                       | 3     |
| BMGT 235<br>or BMGT 245                       | Management<br>Customer Service Management                                      | 3     |
| BMGT 299                                      | Capstone: Entrepreneurship                                                     | 3     |
| BMKT 225                                      | Marketing                                                                      | 3     |
| COMX 111A<br>or COMX 115S                     | Introduction to Public Speaking<br>Introduction to Interpersonal Communication | 3     |
| CSCI 172                                      | Intro to Computer Modeling                                                     | 3     |
| CULA 100                                      | Culinary Arts Fundamentals                                                     | 2     |
| CULA 101                                      | Introduction to Knife Skills and Butchery                                      | 2     |
| CULA 105                                      | Food Service Sanitation                                                        | 2     |
| CULA 157                                      | Pantry & Garde Manger                                                          | 3     |
| CULA 160                                      | Soups, Stocks, & Sauces                                                        | 3     |
| CULA 161                                      | Meats & Vegetables                                                             | 3     |
| CULA 162                                      | Storeroom Management and Receiving Operations                                  | 2     |
| CULA 165                                      | Baking & Pastry                                                                | 5     |
| CULA 206                                      | Restaurant Management                                                          | 3     |
| CULA 298                                      | Food Service Internship                                                        | 4     |
| ECNS 201S                                     | Principles of Microeconomics                                                   | 3     |
| HTR 107                                       | Introduction to Hospitality Management                                         | 3     |
| M 105                                         | Contemporary Mathematics                                                       | 3     |
| NUTR 221N                                     | Basic Human Nutrition                                                          | 3     |

|                    |                   |           |
|--------------------|-------------------|-----------|
| WRIT 101           | College Writing I | 3         |
| <b>Total Hours</b> |                   | <b>68</b> |

## Two Year Plan

| Course                                    | Title                                                                             | Hours        |
|-------------------------------------------|-----------------------------------------------------------------------------------|--------------|
| <b>First Year</b>                         |                                                                                   |              |
| <b>Autumn</b>                             |                                                                                   |              |
| BGEN 105S                                 | Introduction to Business                                                          | 3            |
| CULA 100                                  | Culinary Arts Fundamentals                                                        | 2            |
| CULA 101                                  | Introduction to Knife Skills and Butchery                                         | 2            |
| CULA 105                                  | Food Service Sanitation                                                           | 2            |
| CULA 160                                  | Soups, Stocks, & Sauces                                                           | 3            |
| NUTR 221N                                 | Basic Human Nutrition                                                             | 3            |
| WRIT 101                                  | College Writing I                                                                 | 3-4          |
| <b>Hours</b>                              |                                                                                   | <b>18-19</b> |
| <b>Spring</b>                             |                                                                                   |              |
| ANTY 133X<br>or ANTY 141H<br>or PSYX 100S | Food and Culture<br>or The Silk Road<br>or Intro to Psychology                    | 3            |
| BMGT 298                                  | Management Internship <sup>1</sup>                                                | 4            |
| CULA 157                                  | Pantry & Garde Manger                                                             | 3            |
| CULA 161                                  | Meats & Vegetables                                                                | 3            |
| CULA 165                                  | Baking & Pastry                                                                   | 5            |
| M 105                                     | Contemporary Mathematics                                                          | 3-4          |
| <b>Hours</b>                              |                                                                                   | <b>21-22</b> |
| <b>Second Year</b>                        |                                                                                   |              |
| <b>Autumn</b>                             |                                                                                   |              |
| BMKT 225                                  | Marketing                                                                         | 3            |
| BMGT 235<br>or BMGT 245                   | Management<br>or Customer Service Management                                      | 3            |
| CSCI 172                                  | Intro to Computer Modeling                                                        | 3            |
| CULA 162                                  | Storeroom Management and Receiving Operations                                     | 2            |
| HTR 107                                   | Introduction to Hospitality Management                                            | 3            |
| <b>Hours</b>                              |                                                                                   | <b>14</b>    |
| <b>Spring</b>                             |                                                                                   |              |
| ACTG 101<br>or ACTG 201                   | Accounting Procedures I<br>or Principles of Financial Accounting                  | 3            |
| COMX 111A<br>or COMX 115S                 | Introduction to Public Speaking<br>or Introduction to Interpersonal Communication | 3            |
| CULA 299                                  | Culinary Arts Capstone                                                            | 2            |
| CULA 206                                  | Restaurant Management                                                             | 3            |
| ECNS 201S                                 | Principles of Microeconomics                                                      | 3            |
| <b>Hours</b>                              |                                                                                   | <b>14</b>    |
| <b>Total Hours</b>                        |                                                                                   | <b>67-69</b> |

<sup>1</sup> To be taken in place of CULA 298

*Last Updated Fall 2025*

## Information Technology & Cybersecurity A.A.S.

The Information Technology & Cybersecurity A.A.S. provides students the foundational skills for supporting users and computing in a networked environment. In addition, the NSA and DHS have designated Missoula College as a National Center of Academic Excellence in Cyber-Defense (CAE-CD). This degree emphasizes cyber-security at every level of information technology from simple use, to computer support and system administration. Finally, as a member of AWS Educate, Missoula College also provides expertise in Cloud computing which is a

fundamental skill for the future as companies more and more move to virtual operations. This degree includes work in Operating Systems and System Administrations, Routing, Hardware Maintenance and Repair, and Scripting and Security.

The University of Montana is a Cisco Networking Academy, CompTIA Authorized Academy, and a member of the Microsoft Developers Network Academic Alliance. Opportunities exist for professional certification from Cisco (CCNA, CCENT, CCVA), Microsoft and Comp TIA (A+, Network+ and Security+).

## General Associate Degree Requirements

Additional requirements for graduation can be found on the Degree/Certificate Requirements for Graduation page (p. 36).

Unless otherwise noted in individual program requirements, a minimum grade point average of 2.00 in all work attempted at the University of Montana-Missoula is required for graduation. Please see the Academic Policies and Procedures page (p. 25) for information on how your GPA is calculated.

Courses taken to satisfy the requirements of an associate degree program must be completed with a grade of C- or better unless a higher grade is noted in the program requirements.

## Associate of Applied Science - Information Technology and Cybersecurity Required Courses

| Code                                          | Title                                                                   | Hours |
|-----------------------------------------------|-------------------------------------------------------------------------|-------|
| <b>Complete all of the following courses:</b> |                                                                         |       |
| BGEN 105S                                     | Introduction to Business                                                | 3     |
| COMX 111A                                     | Introduction to Public Speaking                                         | 3     |
| CSCI 150                                      | Introduction to Computer Science                                        | 3     |
| CSCI 172                                      | Intro to Computer Modeling                                              | 3     |
| CSCI 215E                                     | Social & Ethical Issues in CS                                           | 3     |
| CSCI 240                                      | Databases and SQL                                                       | 3     |
| ITS 150                                       | CCNA 1: Exploration                                                     | 3     |
| ITS 152                                       | CCNA 2: Exploration                                                     | 3     |
| ITS 165                                       | Introduction to Operating Systems and the Command Line                  | 3     |
| ITS 212                                       | Network OS - Server Administration                                      | 3     |
| ITS 214                                       | Network OS - Infrastructure                                             | 3     |
| ITS 221                                       | Project Management                                                      | 3     |
| ITS 222                                       | Enterprise Security                                                     | 3     |
| ITS 233                                       | Introduction to DevOps                                                  | 3     |
| ITS 250                                       | CCNA 3: Exploration                                                     | 3     |
| ITS 274                                       | Ethical Hacking and Network Defense                                     | 3     |
| ITS 279                                       | Cloud Systems                                                           | 3     |
| ITS 280                                       | Computer Repair & Maintenance                                           | 3     |
| ITS 289                                       | Professional Certification                                              | 1     |
| ITS 298                                       | Internship/Cooperative Education                                        | 2     |
| M 115                                         | Probability and Linear Mathematics (or higher level mathematics course) | 3-4   |

|                    |                   |              |
|--------------------|-------------------|--------------|
| WRIT 101           | College Writing I | 3            |
| <b>Total Hours</b> |                   | <b>63-64</b> |

## Two Year Plan

| Course             | Title                                                  | Hours        |
|--------------------|--------------------------------------------------------|--------------|
| <b>First Year</b>  |                                                        |              |
| <b>Autumn</b>      |                                                        |              |
| CSCI 150           | Introduction to Computer Science                       | 3            |
| ITS 150            | CCNA 1: Exploration                                    | 3            |
| ITS 165            | Introduction to Operating Systems and the Command Line | 3            |
| M 115              | Probability and Linear Mathematics                     | 3-4          |
| WRIT 101           | College Writing I                                      | 3-4          |
| <b>Hours</b>       |                                                        | <b>15-17</b> |
| <b>Spring</b>      |                                                        |              |
| BGEN 105S          | Introduction to Business                               | 3            |
| CSCI 172           | Intro to Computer Modeling                             | 3            |
| ITS 212            | Network OS - Server Administration                     | 3            |
| ITS 279            | Cloud Systems                                          | 3            |
| ITS 280            | Computer Repair & Maintenance                          | 3            |
| <b>Hours</b>       |                                                        | <b>15</b>    |
| <b>Second Year</b> |                                                        |              |
| <b>Autumn</b>      |                                                        |              |
| CSCI 240           | Databases and SQL                                      | 3            |
| ITS 152            | CCNA 2: Exploration                                    | 3            |
| ITS 214            | Network OS - Infrastructure                            | 3            |
| ITS 221            | Project Management                                     | 3            |
| ITS 222            | Enterprise Security                                    | 3            |
| ITS 289            | Professional Certification                             | 1            |
| <b>Hours</b>       |                                                        | <b>16</b>    |
| <b>Spring</b>      |                                                        |              |
| COMX 111A          | Introduction to Public Speaking                        | 3            |
| CSCI 215E          | Social & Ethical Issues in CS                          | 3            |
| ITS 233            | Introduction to DevOps                                 | 3            |
| ITS 250            | CCNA 3: Exploration                                    | 3            |
| ITS 274            | Ethical Hacking and Network Defense                    | 3            |
| ITS 298            | Internship/Cooperative Education                       | 2            |
| <b>Hours</b>       |                                                        | <b>17</b>    |
| <b>Total Hours</b> |                                                        | <b>63-65</b> |

*Last updated Fall 2025*

## Legal Studies C.A.S.

The American Bar Association approves this program, and graduates can sit for the NALA CP® Exam (<https://nam04.safelinks.protection.outlook.com/?url=https%3A%2F%2Fna1.org%2Fcertification%2F&data=05%7C02%7CMichelle.Boller%40msu.umt.edu%7C8a6515888c1e48cea32708dc7112886b%7C68407ce503da49ffa0a724be0d37c9d%7C0%7C0%7C638509571626862186%7CUnknown%7CTWFPbGZsb3d8eyJWljoimC4wLjAwMDAiLCJQIjoiV2luMzliLCJBTiI6Ikl1haWwiLCJ%7C0%7C%7C%7C&sdata=btyj6TEkRnuCsdSiEv48%2FOgsf7Kys8GrPI7oOuiVblc%3D&reserved=0>) to become certified paralegals upon graduation. The Legal Studies program prepares students for challenging and diverse careers in private law practices and the law-related areas of business, industry, and government. The goals of the Legal Studies program are to enable students, through theoretical and practical legal education, to understand the function of law, to work as legal assistants and paralegals in the effective delivery of legal services, and to enhance the legal

profession. This program is designed to equip students with skills to analyze legal issues and perform various activities, including drafting legal documents, interviewing clients, conducting legal research, and preparing cases for trial. Students utilize current technology through internet research and legal and general office software applications. Legal Studies students receive the necessary legal training to take advantage of new career opportunities in all sectors of the economy. Students are exposed to the principles of legal ethics and are cautioned regarding restrictions against the unauthorized practice of law by laypersons. Paralegals may not provide legal services directly to the public except as permitted by law.

Our American Bar Association approval requires that this certificate be earned along with an Associate of Arts or Associate of Science degree. This does not apply to students who already have baccalaureate degrees.

## General Certificate Requirements

Additional requirements for graduation can be found on the Degree/Certificate Requirements for Graduation page (p. 36).

Unless otherwise noted in individual program requirements, a minimum grade point average of 2.00 in all work attempted at the University of Montana-Missoula is required for graduation. Please see the Academic Policies and Procedures page (p. 25) for information on how your GPA is calculated.

Courses taken to satisfy the requirements of a major, minor, or certificate program must be completed with a grade of C- or better unless a higher grade is noted in the program requirements.

## Online Program Option

This program may be completed in an online format (<https://catalog.umat.edu/online-programs/definitions/>). Students interested in pursuing an online degree or certificate program are strongly encouraged to contact the offering department to discuss specific program and course modalities (<https://catalog.umat.edu/online-programs/definitions/>) and create a plan of study with an academic advisor. The course requirements listed below may not be consistently offered via online delivery.

## Certificate of Applied Science - Legal Studies

### Course Requirements

| Code                                   | Title                              | Hours |
|----------------------------------------|------------------------------------|-------|
| Complete all of the following courses: |                                    |       |
| COMX 111A                              | Introduction to Public Speaking    | 3     |
| LEG 183                                | Contracts                          | 2     |
| LEG 184E                               | Legal Ethics                       | 3     |
| LEG 185                                | Introduction Paralegal Studies     | 2     |
| LEG 187                                | Legal Research & Writing I         | 3     |
| LEG 188                                | Principles of Real Estate          | 2     |
| LEG 189                                | Criminal Procedures                | 3     |
| LEG 270                                | Civil Litigation                   | 3     |
| LEG 272                                | Computers & Law                    | 3     |
| LEG 286                                | Legal Research & Writing II        | 3     |
| LEG 298                                | Paralegal Studies Internship       | 2     |
| M 115                                  | Probability and Linear Mathematics | 3     |

|             |                              |    |
|-------------|------------------------------|----|
| PSCI 210S   | Intro to American Government | 3  |
| WRIT 101    | College Writing I            | 3  |
| Total Hours |                              | 38 |

## One Year Plan

| Course      | Title                           | Hours |
|-------------|---------------------------------|-------|
| First Year  |                                 |       |
| Autumn      |                                 |       |
| COMX 111A   | Introduction to Public Speaking | 3     |
| LEG 183     | Contracts                       | 2     |
| LEG 184E    | Legal Ethics                    | 3     |
| LEG 185     | Introduction Paralegal Studies  | 2     |
| LEG 187     | Legal Research & Writing I      | 3     |
| LEG 191     | Special Topics                  | 2     |
| Hours       |                                 | 15    |
| Spring      |                                 |       |
| LEG 188     | Principles of Real Estate       | 2     |
| LEG 189     | Criminal Procedures             | 3     |
| LEG 270     | Civil Litigation                | 3     |
| LEG 286     | Legal Research & Writing II     | 3     |
| LEG 298     | Paralegal Studies Internship    | 2     |
| PSCI 210S   | Intro to American Government    | 3     |
| Hours       |                                 | 16    |
| Total Hours |                                 | 31    |

Last updated Fall 2025

## Sales and Marketing C.A.S.

Marketing is a vital function of any organization. The objective is to market and effectively sell products or services to sustain itself, whether for profit or not-for-profit. Opportunity is limitless, the job is never boring, you work with people, and jobs are in demand. You will train in professional sales, learn and practice exceptional customer service, and understand the psychology of selling to assist clients in meeting needs and solving problems. The curriculum also involves marketing activities, bookkeeping functions, and merchandising skills. Successful marketing and sales professionals are creative, self-motivated, optimistic, work well in team environments, are organized and detail-minded.

## General Certificate Requirements

Additional requirements for graduation can be found on the Degree/Certificate Requirements for Graduation page (p. 36).

Unless otherwise noted in individual program requirements, a minimum grade point average of 2.00 in all work attempted at the University of Montana-Missoula is required for graduation. Please see the Academic Policies and Procedures page (p. 25) for information on how your GPA is calculated.

Courses taken to satisfy the requirements of a major, minor, or certificate program must be completed with a grade of C- or better unless a higher grade is noted in the program requirements.

# Certificate of Applied Science - Sales and Marketing

## Course Requirements

| Code                                          | Title                                                         | Hours     |
|-----------------------------------------------|---------------------------------------------------------------|-----------|
| <b>Complete all of the following courses:</b> |                                                               |           |
| ACTG 101<br>or ACTG 201                       | Accounting Procedures I<br>Principles of Financial Accounting | 3         |
| BGEN 105S                                     | Introduction to Business                                      | 3         |
| BGEN 215                                      | Career Readiness                                              | 3         |
| BMKT 112                                      | Applied Sales                                                 | 3         |
| BMKT 225                                      | Marketing                                                     | 3         |
| COMX 111A                                     | Introduction to Public Speaking                               | 3         |
| CSCI 172<br>or CAPP 156                       | Intro to Computer Modeling<br>MS Excel                        | 3         |
| ECNS 201S                                     | Principles of Microeconomics                                  | 3         |
| M 115                                         | Probability and Linear Mathematics                            | 3         |
| WRIT 101                                      | College Writing I                                             | 3         |
| <b>Total Hours</b>                            |                                                               | <b>30</b> |

## One Year Plan

| Course                  | Title                                                            | Hours        |
|-------------------------|------------------------------------------------------------------|--------------|
| <b>First Year</b>       |                                                                  |              |
| <b>Autumn</b>           |                                                                  |              |
| BGEN 105S               | Introduction to Business                                         | 3            |
| BMKT 225                | Marketing                                                        | 3            |
| COMX 111A               | Introduction to Public Speaking                                  | 3            |
| ECNS 201S               | Principles of Microeconomics                                     | 3            |
| M 115                   | Probability and Linear Mathematics                               | 3-4          |
| <b>Hours</b>            |                                                                  | <b>15-16</b> |
| <b>Spring</b>           |                                                                  |              |
| ACTG 101<br>or ACTG 201 | Accounting Procedures I<br>or Principles of Financial Accounting | 3            |
| BGEN 215                | Career Readiness                                                 | 3            |
| BMKT 112                | Applied Sales                                                    | 3            |
| CSCI 172<br>or CAPP 156 | Intro to Computer Modeling<br>or MS Excel                        | 3            |
| WRIT 101                | College Writing I                                                | 3-4          |
| <b>Hours</b>            |                                                                  | <b>15-16</b> |
| <b>Total Hours</b>      |                                                                  | <b>30-32</b> |

*Last updated Fall 2025*

## Health Professions

The Health Professions Department (<http://mc.umt.edu/health/>) at Missoula College prepares students to become competent, caring, ethical professionals and provides the skills and opportunities to jumpstart careers in healthcare.

The ideal Health Professions student is one who thinks critically and independently, who cares about others, whose behavior is guided by ethical values, and who is prepared for lifelong learning and leadership in their profession.

The programs listed in the "Programs" tab share many pre-requisite courses, employ an inter-professional model of learning, and all make use of clinical rotations. During these rotations, students work at healthcare

facility partners alongside licensed professionals with real patients to develop their skills and confidence.

Admission to many of these programs require a separate application and can be competitive, so it is important to meet with an advisor early and learn more about your chosen field of study and how to succeed.

## Programs

- Clinical Medical Assistant C.T.S. (p. 405)
- Medical Assisting A.A.S. (p. 406)
- Medical Claims Specialist C.T.S. (p. 407)
- Medical Information Technology A.A.S. - Health Information Coding Specialty (p. 408)
- Medical Information Technology A.A.S. - Medical Administrative Assisting (p. 409)
- Medical Reception C.A.S. (p. 410)
- Paramedicine A.A.S. (p. 411)
- Pre-Health Professions Studies C.T.S. (p. 412)
- Radiologic Technology A.A.S. (p. 413)
- Registered Nursing A.S. (p. 414)
- Respiratory Care A.A.S. (p. 416)
- Surgical Technology A.A.S. (p. 418)

## Clinical Medical Assistant C.T.S.

Medical Assistants are cross-trained with skills and knowledge in front office administrative, clinical, and limited laboratory procedures that are designed to assist healthcare practitioners in administering to the needs of patients. Physicians appreciate the versatility of medical assistants and their role as vital partners in ambulatory settings. The program is designed to prepare the student for an entry-level position in Clinical Medical Assisting that will prepare them for a Certified Clinical Medical Assisting credential. Students can choose to continue their education and complete the AAS in Medical Assisting that makes them eligible for the Registered Medical Assisting credential upon graduation.

Upon completion of the program students will learn:

- To assist with medical examinations, vital signs, administering medications and injections (under supervision), sterilizing instruments, and electrocardiography.
- Laboratory skills will include venipuncture (under supervision) and performing selected CLIA-waived laboratory tests.
- Become acquainted with the laws and regulations governing medicine in the ambulatory setting, as well as ethical issues being confronted in the health care arena.
- Perform computer-based tasks such as electronic health records and scheduling.
- Effectively communicate with provider and patients.
- Triage messages between patients and physicians.

## General Certificate Requirements

Additional requirements for graduation can be found on the Degree/Certificate Requirements for Graduation page (p. 36).

Unless otherwise noted in individual program requirements, a minimum grade point average of 2.00 in all work attempted at the University of Montana-Missoula is required for graduation. Please see the Academic



Policies and Procedures page (p. 25) for information on how your GPA is calculated.

Courses taken to satisfy the requirements of a major, minor, or certificate program must be completed with a grade of C- or better unless a higher grade is noted in the program requirements.

## Online Program Option

This program may be completed in an online format (<https://catalog.umontana.edu/online-programs/definitions/>). Students interested in pursuing an online degree or certificate program are strongly encouraged to contact the offering department to discuss specific program and course modalities (<https://catalog.umontana.edu/online-programs/definitions/>) and create a plan of study with an academic advisor. The course requirements listed below may not be consistently offered via online delivery.

## Certificate of Technical Studies - Clinical Medical Assistant

### Course Requirements

| Code                                                | Title                                                                                                             | Hours        |
|-----------------------------------------------------|-------------------------------------------------------------------------------------------------------------------|--------------|
| <b>Complete all of the following courses:</b>       |                                                                                                                   |              |
| AHMA 198                                            | Internship/Externship                                                                                             | 5            |
| AHMA 201                                            | Medical Assistance and Clinical Procedures I                                                                      | 4            |
| AHMA 280                                            | Medical Assisting Exam Prep                                                                                       | 3            |
| AHMS 144                                            | Medical Terminology                                                                                               | 3            |
| AHMS 156                                            | Medical Billing Fundamentals                                                                                      | 3            |
| AHMS 220                                            | Medical Office Procedures                                                                                         | 4            |
| BIOH 104N & BIOH 105N<br>or BIOH 112<br>or BIOH 113 | Basic Human Biology and Basic Human Biology Laboratory<br>Human Form and Function I<br>Human Form and Function II | 3-4          |
| <b>Total Hours</b>                                  |                                                                                                                   | <b>25-26</b> |

## One Year Plan

| Course                   | Title                                                           | Hours     |
|--------------------------|-----------------------------------------------------------------|-----------|
| <b>First Year</b>        |                                                                 |           |
| <b>Autumn</b>            |                                                                 |           |
| AHMS 144                 | Medical Terminology <sup>1</sup>                                | 3         |
| AHMS 156                 | Medical Billing Fundamentals <sup>2</sup>                       | 3         |
| AHMS 220                 | Medical Office Procedures <sup>3</sup>                          | 4         |
| BIOH 104N<br>or BIOH 112 | Basic Human Biology<br>or Human Form and Function I             | 3         |
| BIOH 105N<br>or BIOH 113 | Basic Human Biology Laboratory<br>or Human Form and Function II | 1         |
| <b>Hours</b>             |                                                                 | <b>14</b> |
| <b>Spring</b>            |                                                                 |           |
| AHMA 198                 | Internship/Externship <sup>4</sup>                              | 5         |
| AHMA 201                 | Medical Assistance and Clinical Procedures I <sup>5</sup>       | 4         |
| AHMA 280                 | Medical Assisting Exam Prep <sup>2</sup>                        | 3         |
| <b>Hours</b>             |                                                                 | <b>12</b> |
| <b>Total Hours</b>       |                                                                 | <b>26</b> |

<sup>1</sup> Offered online in Fall/Spring/Summer.

<sup>2</sup> Second 8 weeks

<sup>3</sup> First 8 weeks

<sup>4</sup> Must be taken with AHMS 201. Requires 200 clinical hours at a local healthcare facility, can extend over Summer.

<sup>5</sup> 3 hours in-person once a week.

*Last updated Fall 2025*

## Medical Assisting A.A.S.

Students in Medical Assisting are cross-trained with skills and knowledge in front office administrative, clinical, and limited laboratory procedures that are designed to assist healthcare practitioners in administering to the needs of patients. Selected administrative skills include scheduling, medical office accounting systems, medical coding and billing, and electronic medical records. Some of the clinical skills the student will learn include assisting with medical examinations, vital signs, administering medications and injections (under supervision), sterilizing instruments and electrocardiography. Laboratory skills will include venipuncture (under supervision), and performing selected CLIA-waived laboratory tests. Additionally, Medical Assisting students will become acquainted with the laws and regulations governing medicine in the ambulatory setting, as well as ethical issues being confronted in the health care arena. The program is designed to prepare the student for an entry-level position in Medical Assisting.

Students may apply for admission by meeting with the program director. Prior to entry, the student must be able to show competency in computers. Each Spring students will have to provide documentation of vaccines, background check, etc. as posted on the program's web page. Because some classes are only offered in a specific semester, plus some courses have pre-requisites or co-requisites, meeting with the program director before each semester is necessary to avoid problems.

Students must earn a C or better in all courses in order to progress and complete the program. This includes being able to pass 100% of psychomotor and affective competencies required in laboratory/procedure courses. A course may be attempted a maximum of two times. At the end of the program the student will perform a 200-hour externship/practicum in an ambulatory facility, such as a clinic or doctor's office. The site must be approved by the Program Director. This provides the student with the opportunity to apply the knowledge and skills learned in a real world setting. Students successfully completing the program will be awarded an Associate of Applied Science degree.

Graduates are encouraged and prepared to take the Registered Medical Assisting exam upon graduation.

## General Associate Degree Requirements

Additional requirements for graduation can be found on the Degree/Certificate Requirements for Graduation page (p. 36).

Unless otherwise noted in individual program requirements, a minimum grade point average of 2.00 in all work attempted at the University of Montana-Missoula is required for graduation. Please see the Academic Policies and Procedures page (p. 25) for information on how your GPA is calculated.

Courses taken to satisfy the requirements of an associate degree program must be completed with a grade of C- or better unless a higher grade is noted in the program requirements.

## Associate of Applied Science - Medical Assisting

- A minimum grade of C in each Medical Assisting core course is required.
- Medical Assisting core courses must be completed in no more than 2 attempts.
- The student must show competence in computer applications to enter the Medical Assisting program.

### Course Requirements

| Code                                          | Title                                                          | Hours     |
|-----------------------------------------------|----------------------------------------------------------------|-----------|
| <b>Complete all of the following courses:</b> |                                                                |           |
| ACTG 101                                      | Accounting Procedures I                                        | 3         |
| AHMA 201                                      | Medical Assistance and Clinical Procedures I                   | 4         |
| AHMA 203                                      | Medical Assistance and Clinical Procedures II                  | 4         |
| AHMA 280                                      | Medical Assisting Exam Prep                                    | 3         |
| AHMA 298                                      | Medical Assisting Externship                                   | 5         |
| AHMS 144                                      | Medical Terminology                                            | 3         |
| AHMS 156                                      | Medical Billing Fundamentals                                   | 3         |
| AHMS 216                                      | Pharmaceutical Products                                        | 3         |
| AHMS 220                                      | Medical Office Procedures                                      | 4         |
| AHMS 252                                      | Computerized Medical Billing                                   | 3         |
| AHMS 270E                                     | Medical Ethics                                                 | 3         |
| BGEN 215                                      | Career Readiness                                               | 3         |
| BIOH 104N                                     | Basic Human Biology                                            | 3         |
| BIOH 105N                                     | Basic Human Biology Laboratory                                 | 1         |
| CAPP 154                                      | MS Word                                                        | 3         |
| COMX 115S                                     | Introduction to Interpersonal Communication                    | 3         |
| HIT 265                                       | Electronic Health Records                                      | 3         |
| M 105<br>or M 115                             | Contemporary Mathematics<br>Probability and Linear Mathematics | 3         |
| PSYX 100S                                     | Intro to Psychology                                            | 3         |
| WRIT 101                                      | College Writing I                                              | 3         |
| <b>Total Hours</b>                            |                                                                | <b>63</b> |

### Two Year Plan

| Course            | Title                                                             | Hours        |
|-------------------|-------------------------------------------------------------------|--------------|
| <b>First Year</b> |                                                                   |              |
| <b>Autumn</b>     |                                                                   |              |
| AHMS 144          | Medical Terminology                                               | 3            |
| AHMS 156          | Medical Billing Fundamentals <sup>1</sup>                         | 3            |
| AHMS 220          | Medical Office Procedures <sup>2</sup>                            | 4            |
| CAPP 154          | MS Word                                                           | 3            |
| M 105<br>or M 115 | Contemporary Mathematics<br>or Probability and Linear Mathematics | 3-4          |
| <b>Hours</b>      |                                                                   | <b>16-17</b> |
| <b>Spring</b>     |                                                                   |              |
| AHMS 252          | Computerized Medical Billing                                      | 3            |
| AHMS 270E         | Medical Ethics                                                    | 3            |
| BIOH 104N         | Basic Human Biology                                               | 3            |
| BIOH 105N         | Basic Human Biology Laboratory                                    | 1            |
| WRIT 101          | College Writing I                                                 | 3-4          |

|                                     |                                                           |              |
|-------------------------------------|-----------------------------------------------------------|--------------|
| Apply for the CTS Medical Reception |                                                           |              |
| <b>Hours</b>                        |                                                           | <b>13-14</b> |
| <b>Second Year</b>                  |                                                           |              |
| <b>Autumn</b>                       |                                                           |              |
| ACTG 101                            | Accounting Procedures I                                   | 3            |
| AHMA 201                            | Medical Assistance and Clinical Procedures I <sup>3</sup> | 4            |
| AHMS 216                            | Pharmaceutical Products                                   | 3            |
| BGEN 215                            | Career Readiness                                          | 3            |
| COMX 115S                           | Introduction to Interpersonal Communication               | 3            |
| Apply for the AAS Medical Assisting |                                                           |              |
| <b>Hours</b>                        |                                                           | <b>16</b>    |
| <b>Spring</b>                       |                                                           |              |
| AHMA 203                            | Medical Assistance and Clinical Procedures II             | 4            |
| AHMA 280                            | Medical Assisting Exam Prep <sup>1</sup>                  | 3            |
| AHMA 298                            | Medical Assisting Externship                              | 5            |
| HIT 265                             | Electronic Health Records                                 | 3            |
| PSYX 100S                           | Intro to Psychology                                       | 3            |
| <b>Hours</b>                        |                                                           | <b>18</b>    |
| <b>Total Hours</b>                  |                                                           | <b>63-65</b> |

<sup>1</sup> Second 8 weeks

<sup>2</sup> First 8 weeks

<sup>3</sup> 3 hours in-person a week

*Last updated Fall 2025*

## Medical Claims Specialist C.T.S.

Students are prepared academically and professionally for claim specialist positions in insurance organizations and healthcare facilities. In this fast-track program, students will learn foundational skills to:

- Understand medical terminology and human biology
- Understand medical benefit plans and the claims process to responsibly verify the accuracy and receipt of claims and the analysis of information for processing claims to promote accurate and prompt reimbursement
- Communicate professionally between peers, vendors, management, and customers in order to provide exceptional customer service
- Recommend claims action steps to promote accurate and prompt reimbursement
- Additionally graduates will work collaboratively with other team members to ensure the most positive service experience to both customers and vendors.

## General Certificate Requirements

Additional requirements for graduation can be found on the Degree/Certificate Requirements for Graduation page (p. 36).

Unless otherwise noted in individual program requirements, a minimum grade point average of 2.00 in all work attempted at the University of Montana-Missoula is required for graduation. Please see the Academic Policies and Procedures page (p. 25) for information on how your GPA is calculated.

Courses taken to satisfy the requirements of a major, minor, or certificate program must be completed with a grade of C- or better unless a higher grade is noted in the program requirements.

## Online Program Option

This program may be completed in an online format (<https://catalog.umat.edu/online-programs/definitions/>). Students interested in pursuing an online degree or certificate program are strongly encouraged to contact the offering department to discuss specific program and course modalities (<https://catalog.umat.edu/online-programs/definitions/>) and create a plan of study with an academic advisor. The course requirements listed below may not be consistently offered via online delivery.

## Certificate of Technical Studies - Medical Claims Specialist

### Course Requirements

| Code                                          | Title                          | Hours     |
|-----------------------------------------------|--------------------------------|-----------|
| <b>Complete all of the following courses:</b> |                                |           |
| AHMS 144                                      | Medical Terminology            | 3         |
| AHMS 156                                      | Medical Billing Fundamentals   | 3         |
| AHMS 252                                      | Computerized Medical Billing   | 3         |
| BGEN 215                                      | Career Readiness               | 3         |
| BIOH 104N                                     | Basic Human Biology            | 3         |
| BIOH 105N                                     | Basic Human Biology Laboratory | 1         |
| BMGT 245                                      | Customer Service Management    | 3         |
| HIT 265                                       | Electronic Health Records      | 3         |
| <b>Total Hours</b>                            |                                | <b>22</b> |

## One Year Plan

| Course             | Title                                     | Hours     |
|--------------------|-------------------------------------------|-----------|
| <b>First Year</b>  |                                           |           |
| <b>Autumn</b>      |                                           |           |
| AHMS 144           | Medical Terminology                       | 3         |
| AHMS 156           | Medical Billing Fundamentals <sup>1</sup> | 3         |
| BIOH 104N          | Basic Human Biology                       | 3         |
| BIOH 105N          | Basic Human Biology Laboratory            | 1         |
| BMGT 245           | Customer Service Management               | 3         |
| <b>Hours</b>       |                                           | <b>13</b> |
| <b>Spring</b>      |                                           |           |
| AHMS 252           | Computerized Medical Billing              | 3         |
| BGEN 215           | Career Readiness                          | 3         |
| HIT 265            | Electronic Health Records                 | 3         |
| <b>Hours</b>       |                                           | <b>9</b>  |
| <b>Total Hours</b> |                                           | <b>22</b> |

<sup>1</sup> Second 8 weeks

*Last updated Fall 2025*

## Medical Information Technology A.A.S. - Health Information Coding Specialty

Health information coders play a critical role in accurately identifying procedures and diagnoses to ensure accurate billing and reimbursement. Students are trained to:

- Understand anatomy, medical terminology, and disease processes necessary to determine correct codes and sequences.
- Analyze health records and to accurately abstract and code procedures and diagnoses utilizing legal and regulatory standards.
- Communicate with physicians, healthcare facilities, insurance companies, and patients to ensure accurate and timely reimbursement.

Graduates are adequately prepared for many roles, such as working in a front office with patients or behind the scenes with insurance companies and healthcare facilities. Upon graduation, students are encouraged and eligible to sit for AHIMA Certified Coding Associate (CCA) and Certified Coding Specialist (CCS) or AAPC Certified Professional Coder (CPC) certification exams to increase their employment opportunities.

## General Associate Degree Requirements

Additional requirements for graduation can be found on the Degree/Certificate Requirements for Graduation page (p. 36).

Unless otherwise noted in individual program requirements, a minimum grade point average of 2.00 in all work attempted at the University of Montana-Missoula is required for graduation. Please see the Academic Policies and Procedures page (p. 25) for information on how your GPA is calculated.

Courses taken to satisfy the requirements of an associate degree program must be completed with a grade of C- or better unless a higher grade is noted in the program requirements.

## Online Program Option

This program may be completed in an online format (<https://catalog.umat.edu/online-programs/definitions/>). Students interested in pursuing an online degree or certificate program are strongly encouraged to contact the offering department to discuss specific program and course modalities (<https://catalog.umat.edu/online-programs/definitions/>) and create a plan of study with an academic advisor. The course requirements listed below may not be consistently offered via online delivery.

## Associate of Applied Science - Medical Information Technology; Health Information Coding Concentration

### Course Requirements

| Code                                          | Title                          | Hours |
|-----------------------------------------------|--------------------------------|-------|
| <b>Core Courses</b>                           |                                |       |
| <b>Complete all of the following courses:</b> |                                |       |
| AHMS 144                                      | Medical Terminology            | 3     |
| AHMS 156                                      | Medical Billing Fundamentals   | 3     |
| AHMS 216                                      | Pharmaceutical Products        | 3     |
| AHMS 220                                      | Medical Office Procedures      | 4     |
| AHMS 252                                      | Computerized Medical Billing   | 3     |
| AHMS 270E                                     | Medical Ethics                 | 3     |
| AHMS 298                                      | Medical Information Internship | 3     |
| BGEN 215                                      | Career Readiness               | 3     |
| BIOH 104N                                     | Basic Human Biology            | 3     |
| BIOH 105N                                     | Basic Human Biology Laboratory | 1     |

|                                                      |                                             |           |
|------------------------------------------------------|---------------------------------------------|-----------|
| CAPP 154                                             | MS Word                                     | 3         |
| COMX 115S                                            | Introduction to Interpersonal Communication | 3         |
| CSCI 172                                             | Intro to Computer Modeling                  | 3         |
| HIT 265                                              | Electronic Health Records                   | 3         |
| M 105                                                | Contemporary Mathematics                    | 3         |
| or M 115                                             | Probability and Linear Mathematics          | 3         |
| PSYX 100S                                            | Intro to Psychology                         | 3         |
| WRIT 101                                             | College Writing I                           | 3         |
| <b>Coding Courses - Great Falls MSU <sup>1</sup></b> |                                             |           |
| Complete all of the following courses:               |                                             |           |
| AHMS 160                                             | Beginning Procedural Coding                 | 3         |
| AHMS 164                                             | AHMS 164 Beginning Diagnosis Coding: ICD-10 | 3         |
| AHMS 212                                             | CPT Coding                                  | 3         |
| AHMS 213                                             | ICD-10 CODING                               | 3         |
| <b>Total Hours</b>                                   |                                             | <b>62</b> |

<sup>1</sup> AHMS 160, AHMS 164, AHMS 212, and AHMS 213 are taken through Great Falls College-MSU. Students must also take AHMS 201 at Great Falls College-MSU in order to register for AHMS 160 and AHMS 164. See program director for coding course information.

## Two Year Plan

| Course                                                    | Title                                                    | Hours        |
|-----------------------------------------------------------|----------------------------------------------------------|--------------|
| <b>First Year</b>                                         |                                                          |              |
| <b>Autumn</b>                                             |                                                          |              |
| AHMS 144                                                  | Medical Terminology                                      | 3            |
| AHMS 156                                                  | Medical Billing Fundamentals <sup>1</sup>                | 3            |
| AHMS 220                                                  | Medical Office Procedures <sup>2</sup>                   | 4            |
| CAPP 154                                                  | MS Word                                                  | 3            |
| WRIT 101                                                  | College Writing I                                        | 3-4          |
| <b>Hours</b>                                              |                                                          | <b>16-17</b> |
| <b>Spring</b>                                             |                                                          |              |
| AHMS 252                                                  | Computerized Medical Billing                             | 3            |
| AHMS 270E                                                 | Medical Ethics                                           | 3            |
| BIOH 104N                                                 | Basic Human Biology                                      | 3            |
| BIOH 105N                                                 | Basic Human Biology Laboratory                           | 1            |
| COMX 115S                                                 | Introduction to Interpersonal Communication              | 3            |
| M 105                                                     | Contemporary Mathematics                                 | 3-4          |
| or M 115                                                  | or Probability and Linear Mathematics                    |              |
| Meet with Advisor to complete Great Falls MSU Application |                                                          |              |
| <b>Hours</b>                                              |                                                          | <b>16-17</b> |
| <b>Second Year</b>                                        |                                                          |              |
| <b>Autumn</b>                                             |                                                          |              |
| AHMS 160                                                  | Beginning Procedural Coding <sup>3</sup>                 | 3            |
| AHMS 164                                                  | AHMS 164 Beginning Diagnosis Coding: ICD-10 <sup>3</sup> | 3            |
| AHMS 201 <sup>3</sup>                                     |                                                          |              |
| AHMS 216                                                  | Pharmaceutical Products                                  | 3            |
| CSCI 172                                                  | Intro to Computer Modeling                               | 3            |
| Complete Graduation Application for AAS MINT-HICS         |                                                          |              |
| <b>Hours</b>                                              |                                                          | <b>12</b>    |
| <b>Spring</b>                                             |                                                          |              |
| AHMS 212                                                  | CPT Coding <sup>3</sup>                                  | 3            |
| AHMS 213                                                  | ICD-10 CODING <sup>3</sup>                               | 3            |
| AHMS 298                                                  | Medical Information Internship                           | 3            |
| BGEN 215                                                  | Career Readiness                                         | 3            |
| HIT 265                                                   | Electronic Health Records                                | 3            |

|                    |                     |              |
|--------------------|---------------------|--------------|
| PSYX 100S          | Intro to Psychology | 3            |
| <b>Hours</b>       |                     | <b>18</b>    |
| <b>Total Hours</b> |                     | <b>62-64</b> |

<sup>1</sup> Second 8 weeks

<sup>2</sup> First 8 weeks

<sup>3</sup> Taken through Great Falls College-MSU. Students must also take AHMS 201 (3 additional credits) at Great Falls College-MSU in order to register for AHMS 160 and AHMS 164.

*Last updated Fall 2025*

## Medical Information Technology A.A.S. - Medical Administrative Assisting

Medical administrative assistants are critical to a healthcare facility.

They are the first person a patient talks to or meets when they come in for care. This program offers students a career in this fascinating and high-demand medical field. According to the Bureau of Labor Statistics, positions in these medical areas are expected to increase over 20 percent in the next several years.

In the first year of this program students will receive the Medical Reception certificate. Upon completion, students will continue to develop skills to:

- Effectively and confidentially communicate with patients, maintain patient records, schedule appointments, and transcribe letters and patient chart notes.
- Post charges and payments and submit insurance claims using current coding procedures.
- Create and update the office procedures manual, assist in improving work flow and office efficiencies, and supervise and communicate with office personnel.

Graduates are prepared for employment in clinics, hospitals, private practices, insurance companies, and work-at-home opportunities. Students successfully completing the program are awarded the Associate of Applied Science degree. Students may enter either Autumn or Spring semester.

## General Associate Degree Requirements

Additional requirements for graduation can be found on the Degree/Certificate Requirements for Graduation page (p. 36).

Unless otherwise noted in individual program requirements, a minimum grade point average of 2.00 in all work attempted at the University of Montana-Missoula is required for graduation. Please see the Academic Policies and Procedures page (p. 25) for information on how your GPA is calculated.

Courses taken to satisfy the requirements of an associate degree program must be completed with a grade of C- or better unless a higher grade is noted in the program requirements.

## Online Program Option

This program may be completed in an online format (<https://catalog.umn.edu/online-programs/definitions/>). Students interested in pursuing an online degree or certificate program are strongly encouraged

to contact the offering department to discuss specific program and course modalities (<https://catalog.umd.edu/online-programs/definitions/>) and create a plan of study with an academic advisor. The course requirements listed below may not be consistently offered via online delivery.

## Associate of Applied Science - Medical Information Technology; Medical Administrative Assisting Concentration

### Course Requirements

| Code                                          | Title                                                          | Hours     |
|-----------------------------------------------|----------------------------------------------------------------|-----------|
| <b>Complete all of the following courses:</b> |                                                                |           |
| ACTG 101                                      | Accounting Procedures I                                        | 3         |
| AHMS 144                                      | Medical Terminology                                            | 3         |
| AHMS 156                                      | Medical Billing Fundamentals                                   | 3         |
| AHMS 216                                      | Pharmaceutical Products                                        | 3         |
| AHMS 220                                      | Medical Office Procedures                                      | 4         |
| AHMS 252                                      | Computerized Medical Billing                                   | 3         |
| AHMS 270E                                     | Medical Ethics                                                 | 3         |
| AHMS 298                                      | Medical Information Internship                                 | 3         |
| BGEN 215                                      | Career Readiness                                               | 3         |
| BIOH 104N                                     | Basic Human Biology                                            | 3         |
| BIOH 105N                                     | Basic Human Biology Laboratory                                 | 1         |
| BMGT 245                                      | Customer Service Management                                    | 3         |
| CAPP 154                                      | MS Word                                                        | 3         |
| COMX 111A                                     | Introduction to Public Speaking                                | 3         |
| COMX 115S                                     | Introduction to Interpersonal Communication                    | 3         |
| CSCI 172                                      | Intro to Computer Modeling                                     | 3         |
| HIT 265                                       | Electronic Health Records                                      | 3         |
| M 105<br>or M 115                             | Contemporary Mathematics<br>Probability and Linear Mathematics | 4         |
| PSYX 100S                                     | Intro to Psychology                                            | 3         |
| WRIT 101                                      | College Writing I                                              | 3         |
| <b>Total Hours</b>                            |                                                                | <b>60</b> |

### Two Year Plan

| Course            | Title                                                             | Hours        |
|-------------------|-------------------------------------------------------------------|--------------|
| <b>First Year</b> |                                                                   |              |
| <b>Autumn</b>     |                                                                   |              |
| AHMS 144          | Medical Terminology                                               | 3            |
| AHMS 156          | Medical Billing Fundamentals <sup>1</sup>                         | 3            |
| AHMS 220          | Medical Office Procedures <sup>2</sup>                            | 4            |
| CAPP 154          | MS Word                                                           | 3            |
| M 105<br>or M 115 | Contemporary Mathematics<br>or Probability and Linear Mathematics | 3-4          |
| <b>Hours</b>      |                                                                   | <b>16-17</b> |
| <b>Spring</b>     |                                                                   |              |
| AHMS 252          | Computerized Medical Billing                                      | 3            |
| AHMS 270E         | Medical Ethics                                                    | 3            |
| BIOH 104N         | Basic Human Biology                                               | 3            |
| BIOH 105N         | Basic Human Biology Laboratory                                    | 1            |
| WRIT 101          | College Writing I                                                 | 3-4          |

|                                               |                                             |              |
|-----------------------------------------------|---------------------------------------------|--------------|
| <b>Apply for Medical Reception CAS</b>        |                                             |              |
| <b>Hours</b>                                  |                                             | <b>13-14</b> |
| <b>Second Year</b>                            |                                             |              |
| <b>Autumn</b>                                 |                                             |              |
| ACTG 101                                      | Accounting Procedures I                     | 3            |
| AHMS 216                                      | Pharmaceutical Products                     | 3            |
| BGEN 215                                      | Career Readiness                            | 3            |
| BMGT 245                                      | Customer Service Management                 | 3            |
| COMX 115S                                     | Introduction to Interpersonal Communication | 3            |
| <b>Apply for AAS &amp; Medical Claims CTS</b> |                                             |              |
| <b>Hours</b>                                  |                                             | <b>15</b>    |
| <b>Spring</b>                                 |                                             |              |
| AHMS 298                                      | Medical Information Internship              | 3            |
| COMX 111A                                     | Introduction to Public Speaking             | 3            |
| CSCI 172                                      | Intro to Computer Modeling                  | 3            |
| HIT 265                                       | Electronic Health Records                   | 3            |
| PSYX 100S                                     | Intro to Psychology                         | 3            |
| <b>Hours</b>                                  |                                             | <b>15</b>    |
| <b>Total Hours</b>                            |                                             | <b>59-61</b> |

<sup>1</sup> Second 8 weeks

<sup>2</sup> First 8 weeks

*Last updated Fall 2025*

## Medical Reception C.A.S.

The Medical Reception Certificate prepares students with the required skills to provide exceptional service to patients in a medical setting, ranging from private practice receptionists to hospital ward secretaries. Students learn how to perform essential duties including:

- Greeting patients, scheduling appointments, screening telephone calls, obtaining and entering patient registration information, releasing appropriate medical information, maintaining medical records, and managing patient flow.
- Understanding the financial transactions of a practice with a clear understanding of all the activities in the billing and collection cycle.
- Applying foundational knowledge of medical law and the principles of medical ethics as well as the guidelines established by HIPAA.

Upon completion of the program, students receive a Certificate of Applied Science and will be prepared to work as receptionists in healthcare facilities and physician offices.

## General Certificate Requirements

Additional requirements for graduation can be found on the Degree/Certificate Requirements for Graduation page (p. 36).

Unless otherwise noted in individual program requirements, a minimum grade point average of 2.00 in all work attempted at the University of Montana-Missoula is required for graduation. Please see the Academic Policies and Procedures page (p. 25) for information on how your GPA is calculated.

Courses taken to satisfy the requirements of a major, minor, or certificate program must be completed with a grade of C- or better unless a higher grade is noted in the program requirements.



## Online Program Option

This program may be completed in an online format (<https://catalog.umat.edu/online-programs/definitions/>). Students interested in pursuing an online degree or certificate program are strongly encouraged to contact the offering department to discuss specific program and course modalities (<https://catalog.umat.edu/online-programs/definitions/>) and create a plan of study with an academic advisor. The course requirements listed below may not be consistently offered via online delivery.

## Certificate of Applied Science - Medical Reception

### Course Requirements

| Code                                          | Title                                       | Hours     |
|-----------------------------------------------|---------------------------------------------|-----------|
| <b>Complete all of the following courses:</b> |                                             |           |
| ACTG 101                                      | Accounting Procedures I                     | 3         |
| AHMS 144                                      | Medical Terminology                         | 3         |
| AHMS 156                                      | Medical Billing Fundamentals                | 3         |
| AHMS 220                                      | Medical Office Procedures                   | 4         |
| AHMS 252                                      | Computerized Medical Billing                | 3         |
| AHMS 270E                                     | Medical Ethics                              | 3         |
| CAPP 154                                      | MS Word                                     | 3         |
| COMX 115S                                     | Introduction to Interpersonal Communication | 3         |
| M 105                                         | Contemporary Mathematics                    | 3         |
| WRIT 101                                      | College Writing I                           | 3         |
| <b>Total Hours</b>                            |                                             | <b>31</b> |

## One Year Plan

| Course             | Title                                                             | Hours        |
|--------------------|-------------------------------------------------------------------|--------------|
| <b>First Year</b>  |                                                                   |              |
| <b>Autumn</b>      |                                                                   |              |
| AHMS 144           | Medical Terminology                                               | 3            |
| AHMS 156           | Medical Billing Fundamentals <sup>1</sup>                         | 3            |
| AHMS 220           | Medical Office Procedures <sup>2</sup>                            | 4            |
| CAPP 154           | MS Word                                                           | 3            |
| M 105<br>or M 115  | Contemporary Mathematics<br>or Probability and Linear Mathematics | 3-4          |
| <b>Hours</b>       |                                                                   | <b>16-17</b> |
| <b>Spring</b>      |                                                                   |              |
| ACTG 101           | Accounting Procedures I                                           | 3            |
| AHMS 252           | Computerized Medical Billing                                      | 3            |
| AHMS 270E          | Medical Ethics                                                    | 3            |
| COMX 115S          | Introduction to Interpersonal Communication                       | 3            |
| WRIT 101           | College Writing I                                                 | 3-4          |
| <b>Hours</b>       |                                                                   | <b>15-16</b> |
| <b>Total Hours</b> |                                                                   | <b>31-33</b> |

<sup>1</sup> Second 8 weeks

<sup>2</sup> First 8 weeks

*Last updated Fall 2025*

## Paramedicine A.A.S.

The Paramedicine Associate of Applied Science program at Missoula College prepares students to provide emergency medical care to victims of illness, accident, or injury, assessing patients and performing critical medical interventions. As members of the allied healthcare team, Paramedics work as part of a comprehensive EMS response, applying their advanced knowledge of human anatomy and physiology to provide advanced life support care to patients.

The primary goal of the Missoula Paramedic Program is to prepare competent entry-level Paramedics in the cognitive (knowledge), psychomotor (skills), and affective (behavior) learning domains with or without exit points at the Advanced Emergency Medical Technician and/or Emergency Medical Technician, and/or Emergency Medical Responder levels.

Paramedics are employed by ambulance services, fire departments, within hospitals, and as members of emergency flight crews. They employ life-saving strategies such as managing airways, establishing vascular access, performing CPR, and administering pharmaceuticals, often while transporting patients to critical care facilities. Students who demonstrate a commitment to life-long learning, civic engagement, and service to their communities are invited to apply.

Missoula College's Paramedicine program is delivered through a community partnership with Missoula Emergency Services, Inc. (MESI), which has been training paramedics since the 1980s. The program is a candidate for Accreditation by the Committee on Accreditation of Educational Programs for EMS Professions (CoAEMSP) and the Commission on Accreditation of Allied Health Education Programs (CAAHEP).

Admission to the program is competitive and requires prior completion of 16 credits of pre-requisite coursework as well as a current NREMT Certification. The program's core classes begin every autumn semester and include 57 credits of classroom and laboratory instruction as well as hundreds of hours of experiential, hands-on clinical training within hospitals and aboard ambulances.

Student progress is evaluated in the classroom through testing of cognitive knowledge and in labs and clinical rotations through observation of the technical and psychomotor skills used in the profession. The program maintains high standards of ethical and professional behavior. Upon graduating, the student qualifies for an examination administered by the National Registry of Emergency Medical Technicians (NREMT), successful completion of which earns a national certification and allows the individual to practice in all states.

## General Associate Degree Requirements

Additional requirements for graduation can be found on the Degree/Certificate Requirements for Graduation page (p. 36).

Unless otherwise noted in individual program requirements, a minimum grade point average of 2.00 in all work attempted at the University of Montana-Missoula is required for graduation. Please see the Academic Policies and Procedures page (p. 25) for information on how your GPA is calculated.

Courses taken to satisfy the requirements of an associate degree program must be completed with a grade of C- or better unless a higher grade is noted in the program requirements.

## Associate of Applied Science - Paramedicine

### Course Requirements

| Code                                   | Title                                       | Hours     |
|----------------------------------------|---------------------------------------------|-----------|
| <b>Pre-Requisite Courses</b>           |                                             |           |
| Complete all of the following courses: |                                             |           |
| AHMS 144                               | Medical Terminology                         | 3         |
| BIOH 104N                              | Basic Human Biology                         | 3         |
| BIOH 105N                              | Basic Human Biology Laboratory              | 1         |
| COMX 115S                              | Introduction to Interpersonal Communication | 3         |
| M 105                                  | Contemporary Mathematics                    | 3         |
| WRIT 101                               | College Writing I                           | 3         |
| <b>Core Courses</b>                    |                                             |           |
| Complete all of the following courses: |                                             |           |
| ECP 200                                | Transition to Paramedic Care                | 3         |
| ECP 201                                | Paramedic Fundamentals                      | 3         |
| ECP 202                                | Paramedic Fundamentals Lab                  | 1         |
| ECP 206                                | EMS Case Studies                            | 4         |
| ECP 207                                | Cardiology                                  | 4         |
| ECP 208                                | Cardiology Lab & ACLS                       | 1         |
| ECP 216                                | Hospital Clinical I                         | 5         |
| ECP 220                                | Special Considerations                      | 1         |
| ECP 221                                | OB/Neonate/Pediatrics                       | 2         |
| ECP 222                                | OB/Neonate/Pediatric Lab/PALS/Stable        | 1         |
| ECP 230                                | Trauma                                      | 2         |
| ECP 232                                | Pulmonary                                   | 2         |
| ECP 233                                | Trauma/Pulmonary Lab & PHTLS                | 1         |
| ECP 242                                | Medical Considerations                      | 2         |
| ECP 243                                | Medical Lab                                 | 1         |
| ECP 246                                | Hospital Clinical II                        | 6         |
| ECP 247                                | Hospital Clinical III                       | 6         |
| ECP 250                                | NREMT Exam Preparation                      | 3         |
| ECP 251                                | NREMT Exam Preparation Lab                  | 1         |
| ECP 298                                | Internship                                  | 8         |
| <b>Total Hours</b>                     |                                             | <b>73</b> |

### Pre/Corequisites

| Course                                                                                                                             | Title                                       | Hours        |
|------------------------------------------------------------------------------------------------------------------------------------|---------------------------------------------|--------------|
| <b>First Year</b>                                                                                                                  |                                             |              |
| <b>Autumn</b>                                                                                                                      |                                             |              |
| AHMS 144                                                                                                                           | Medical Terminology                         | 3            |
| BIOH 104N                                                                                                                          | Basic Human Biology                         | 3            |
| BIOH 105N                                                                                                                          | Basic Human Biology Laboratory              | 1            |
| COMX 115S                                                                                                                          | Introduction to Interpersonal Communication | 3            |
| WRIT 101                                                                                                                           | College Writing I                           | 3-4          |
| M 105                                                                                                                              | Contemporary Mathematics                    | 3-4          |
| *The above courses may also be taken as a corequisite in the Program. Please note they are offered in the Fall & Spring semesters. |                                             |              |
| *Must have a current NREMT Card to apply to the Program.                                                                           |                                             |              |
| <b>Hours</b>                                                                                                                       |                                             | <b>16-18</b> |
| <b>Total Hours</b>                                                                                                                 |                                             | <b>16-18</b> |

## Two Year Plan

| Course             | Title                                | Hours     |
|--------------------|--------------------------------------|-----------|
| <b>First Year</b>  |                                      |           |
| <b>Autumn</b>      |                                      |           |
| ECP 200            | Transition to Paramedic Care         | 3         |
| ECP 201            | Paramedic Fundamentals               | 3         |
| ECP 202            | Paramedic Fundamentals Lab           | 1         |
| ECP 207            | Cardiology                           | 4         |
| ECP 208            | Cardiology Lab & ACLS                | 1         |
| <b>Hours</b>       |                                      | <b>12</b> |
| <b>Spring</b>      |                                      |           |
| ECP 206            | EMS Case Studies                     | 4         |
| ECP 216            | Hospital Clinical I                  | 5         |
| ECP 220            | Special Considerations               | 1         |
| ECP 221            | OB/Neonate/Pediatrics                | 2         |
| ECP 222            | OB/Neonate/Pediatric Lab/PALS/Stable | 1         |
| ECP 230            | Trauma                               | 2         |
| <b>Hours</b>       |                                      | <b>15</b> |
| <b>Summer</b>      |                                      |           |
| ECP 232            | Pulmonary                            | 2         |
| ECP 233            | Trauma/Pulmonary Lab & PHTLS         | 1         |
| ECP 242            | Medical Considerations               | 2         |
| ECP 243            | Medical Lab                          | 1         |
| ECP 246            | Hospital Clinical II                 | 6         |
| <b>Hours</b>       |                                      | <b>12</b> |
| <b>Second Year</b> |                                      |           |
| <b>Autumn</b>      |                                      |           |
| ECP 247            | Hospital Clinical III                | 6         |
| ECP 250            | NREMT Exam Preparation               | 3         |
| ECP 251            | NREMT Exam Preparation Lab           | 1         |
| ECP 298            | Internship                           | 8         |
| <b>Hours</b>       |                                      | <b>18</b> |
| <b>Total Hours</b> |                                      | <b>57</b> |

*Last Updated Fall 2025*

## Pre-Health Professions Studies C.T.S.

### General Certificate Requirements

Additional requirements for graduation can be found on the Degree/Certificate Requirements for Graduation page (p. 36).

Unless otherwise noted in individual program requirements, a minimum grade point average of 2.00 in all work attempted at the University of Montana-Missoula is required for graduation. Please see the Academic Policies and Procedures page (p. 25) for information on how your GPA is calculated.

Courses taken to satisfy the requirements of a major, minor, or certificate program must be completed with a grade of C- or better unless a higher grade is noted in the program requirements.

### Online Program Option

This program may be completed in an online format (<https://catalog.umont.edu/online-programs/definitions/>). Students interested in pursuing an online degree or certificate program are strongly encouraged to contact the offering department to discuss specific program and course modalities (<https://catalog.umont.edu/online-programs/definitions/>) and create a plan of study with an academic advisor. The course

requirements listed below may not be consistently offered via online delivery.

## Certificate of Technical Studies - Pre-Health Professions Studies

### Course Requirements

| Code                                          | Title                                                        | Hours     |
|-----------------------------------------------|--------------------------------------------------------------|-----------|
| <b>Complete all of the following courses:</b> |                                                              |           |
| AHMS 144                                      | Medical Terminology                                          | 3         |
| AHMS 191                                      | Special Topics (Introduction to Health Professions)          | 2         |
| BIOH 104N<br>or BIOH 112                      | Basic Human Biology<br>Human Form and Function I             | 3         |
| BIOH 105N<br>or BIOH 113                      | Basic Human Biology Laboratory<br>Human Form and Function II | 1         |
| M 105                                         | Contemporary Mathematics (or higher)                         | 3         |
| PSYX 100S                                     | Intro to Psychology                                          | 3         |
| WRIT 101                                      | College Writing I                                            | 3         |
| <b>Total Hours</b>                            |                                                              | <b>18</b> |

## Radiologic Technology A.A.S.

A Radiologic Technologist (Radiographer) uses critical thinking and independent judgment to obtain diagnostic medical images while providing quality patient care and minimizing radiation exposure. Technologists are employed in acute care settings, ambulatory care settings, physicians offices, in education, and in management or sales positions. With additional education and training, radiographers may be employed in radiation therapy, computed tomography, mammography, magnetic resonance imaging, diagnostic medical ultrasound, nuclear medicine, special vascular imaging, and cardiac catheterization.

The Radiologic Technology program is approved by the American Registry of Radiologic Technologists (ARRT) and accredited by the Northwest Association of Schools and Colleges. When all requirements for the associate of applied science degree are completed, the student will be eligible to take the national certification examination administered by the American Registry of Radiologic Technologists. Upon successful completion of this examination, the student becomes a Registered Radiologic Technologist, R.T. (R) ARRT.

### Program Requirements

The Associate of Applied Science in Radiologic Technology requires students to successfully complete the Pre-Radiology prerequisite courses prior to applying to the program. Students admitted to the University of Montana may enroll in the Pre-Radiology prerequisite courses. Once accepted into the program, students will complete the A.A.S. in 16 months, graduating at the end of the second fall semester.

Students must pass BIOH 201N with a minimum grade of B and have a minimum cumulative GPA of 2.75 in all course work, including prerequisite courses, to apply to the Radiologic Technology program. A course may be attempted a maximum of two times. As some courses are offered autumn or spring semester only, it is important to obtain advising with the Program Director or Clinical Coordinator each semester prior to registration.

Application to the program is required spring semester in the year prior to the autumn semester program start. Students may apply while enrolled in the Pre-Radiology prerequisite courses with acceptance to the program to be determined after spring grades are finalized. Students who apply twice to the program and are not accepted are strongly encouraged to contact Career Services (<http://www.umt.edu/career/>) for counseling toward another degree.

The program classes begin autumn semester each year with the majority of classroom courses completed in the first two semesters. Clinical education will begin at the end of the first semester. A twelve-week summer session between the first and second years includes clinical rotations of 400 hours (40 hours/week for 10 weeks). The autumn semester of the second year also requires 400 hours of clinical instruction.

Students entering the program are required to rotate to clinical sites outside the Missoula area on a periodic basis. These rotations will take place during any term or session beginning the spring semester of the program. These sites may include, but are not limited to, Ronan, Hamilton, Plains, and Polson, Montana. Transportation and housing are the student's responsibility.

## General Associate Degree Requirements

Additional requirements for graduation can be found on the Degree/Certificate Requirements for Graduation page (p. 36).

Unless otherwise noted in individual program requirements, a minimum grade point average of 2.00 in all work attempted at the University of Montana-Missoula is required for graduation. Please see the Academic Policies and Procedures page (p. 25) for information on how your GPA is calculated.

Courses taken to satisfy the requirements of an associate degree program must be completed with a grade of C- or better unless a higher grade is noted in the program requirements.

## Associate of Applied Science - Radiologic Technology

- Students must complete the prerequisite core before applying to the Radiologic Technology Program or be in the process of completing the prerequisite core during the Spring Semester. Applications are due on or around April 1st.
- BIOH 201N must be passed with a minimum grade of B.
- All AHXR courses must be passed with a minimum grade of B.
- Students must have a minimum GPA of 2.75 in all course work including prerequisite courses to apply to the Radiologic Technology program.

### Course Requirements

| Code                                          | Title                              | Hours |
|-----------------------------------------------|------------------------------------|-------|
| <b>Prerequisite Courses <sup>1</sup></b>      |                                    |       |
| <b>Complete all of the following courses:</b> |                                    |       |
| AHMS 144                                      | Medical Terminology                | 3     |
| BIOH 201N                                     | Human Anatomy & Physiology I       | 4     |
| BIOH 211N                                     | Human Anatomy and Physiology II    | 4     |
| M 115                                         | Probability and Linear Mathematics | 3     |

|                                                  |                                                                                                            |           |
|--------------------------------------------------|------------------------------------------------------------------------------------------------------------|-----------|
| or M 121                                         | College Algebra                                                                                            |           |
| PHSX 105N                                        | Fundamentals of Physical Science                                                                           | 3         |
| or CHMY 121N                                     | Introduction to General Chemistry                                                                          |           |
| WRIT 101                                         | College Writing I                                                                                          | 3         |
| or WRIT 121                                      | Introduction to Technical Writing                                                                          |           |
| <b>Pre- or Co-requisite Courses</b> <sup>2</sup> |                                                                                                            |           |
| Complete all of the following courses:           |                                                                                                            |           |
| AHMS 270E                                        | Medical Ethics                                                                                             | 3         |
| COMX 115S                                        | Introduction to Interpersonal Communication                                                                | 3         |
| or PSYX 100S                                     | Intro to Psychology                                                                                        |           |
| <b>Radiologic Technology Courses</b>             |                                                                                                            |           |
| Complete all of the following courses:           |                                                                                                            |           |
| AHXR 101                                         | Patient Care in Radiology                                                                                  | 2         |
| AHXR 121                                         | Radiographic Imaging I                                                                                     | 4         |
| AHXR 140                                         | Radiographic Methods                                                                                       | 4         |
| AHXR 141                                         | Radiology Lab                                                                                              | 1         |
| AHXR 160                                         | Radiographic Methods II                                                                                    | 3         |
| AHXR 161                                         | Radiographic Methods II Lab                                                                                | 1         |
| AHXR 195                                         | Radiographic Clinical: I (taken Autumn Semester first year at 1 credit and Spring Semester at 4 credits)   | 5         |
| AHXR 221                                         | Radiographic Imaging II                                                                                    | 2         |
| AHXR 225                                         | Radiobiology/Radiation Protctn                                                                             | 2         |
| AHXR 270                                         | Radiographic Registry Review                                                                               | 2         |
| AHXR 295                                         | Radiographic Clinical (taken Summer Semester at 12 credits and Autumn Semester second year at 10 credits.) | 22        |
| <b>Total Hours</b>                               |                                                                                                            | <b>74</b> |

<sup>1</sup> The prerequisite courses are taken before applying to the Radiologic Technology program. Along with BIOH 201N, students must register for the BIOH 202N lab section. These must be passed with a minimum grade of B. Students must also have a minimum cumulative GPA of 2.75 in all course work including prerequisite courses to apply to the Radiologic Technology program.

<sup>2</sup> The pre- or co-requisite courses can be taken either before applying or after being accepted into the program through the application process.

Prerequisite Courses

| Course                    | Title                                                                              | Hours        |
|---------------------------|------------------------------------------------------------------------------------|--------------|
| <b>First Year</b>         |                                                                                    |              |
| <b>Autumn</b>             |                                                                                    |              |
| AHMS 144                  | Medical Terminology                                                                | 3            |
| BIOH 201N                 | Human Anatomy & Physiology I <sup>1</sup>                                          | 4            |
| BIOH 202N                 | Human Anatomy and Physiology I Lab                                                 | 0            |
| M 115<br>or M 121         | Probability and Linear Mathematics<br>or College Algebra                           | 3-4          |
| WRIT 101<br>or WRIT 121   | College Writing I<br>or Introduction to Technical Writing                          | 3-4          |
| <b>Hours</b>              |                                                                                    | <b>13-15</b> |
| <b>Spring</b>             |                                                                                    |              |
| AHMS 270E                 | Medical Ethics <sup>2</sup>                                                        | 3            |
| BIOH 211N                 | Human Anatomy and Physiology II                                                    | 4            |
| BIOH 212N                 | Human Anatomy and Physiology II Lab                                                | 0            |
| COMX 115S<br>or PSYX 100S | Introduction to Interpersonal Communication <sup>2</sup><br>or Intro to Psychology | 3            |

|                                            |                                                                          |              |
|--------------------------------------------|--------------------------------------------------------------------------|--------------|
| PHSX 105N<br>or CHMY 121N                  | Fundamentals of Physical Science<br>or Introduction to General Chemistry | 3-4          |
| Apply to the Radiologic Technology Program |                                                                          |              |
| <b>Hours</b>                               |                                                                          | <b>13-14</b> |
| <b>Total Hours</b>                         |                                                                          | <b>26-29</b> |

Two Year Plan

| Course                                      | Title                                 | Hours     |
|---------------------------------------------|---------------------------------------|-----------|
| <b>First Year</b>                           |                                       |           |
| <b>Autumn</b>                               |                                       |           |
| AHXR 101                                    | Patient Care in Radiology             | 2         |
| AHXR 121                                    | Radiographic Imaging I                | 4         |
| AHXR 140                                    | Radiographic Methods                  | 4         |
| AHXR 141                                    | Radiology Lab                         | 1         |
| AHXR 195                                    | Radiographic Clinical I               | 1         |
| <b>Hours</b>                                |                                       | <b>12</b> |
| <b>Spring</b>                               |                                       |           |
| AHXR 160                                    | Radiographic Methods II               | 3         |
| AHXR 161                                    | Radiographic Methods II Lab           | 1         |
| AHXR 195                                    | Radiographic Clinical I               | 4         |
| AHXR 221                                    | Radiographic Imaging II               | 2         |
| AHXR 225                                    | Radiobiology and Radiation Protection | 2         |
| Apply for the A.A.S Radiologic Technologist |                                       |           |
| <b>Hours</b>                                |                                       | <b>12</b> |
| <b>Summer</b>                               |                                       |           |
| AHXR 295                                    | Radiographic Clinical II              | 12        |
| <b>Hours</b>                                |                                       | <b>12</b> |
| <b>Second Year</b>                          |                                       |           |
| <b>Autumn</b>                               |                                       |           |
| AHXR 270                                    | Radiographic Registry Review          | 2         |
| AHXR 295                                    | Radiographic Clinical II              | 10        |
| <b>Hours</b>                                |                                       | <b>12</b> |
| <b>Total Hours</b>                          |                                       | <b>48</b> |

<sup>1</sup> All AHXR courses must be passed with a minimum grade of B including BIOH 210N.

Last Updated Fall 2025

Registered Nursing A.S.

The Associate of Science in Nursing requires four semesters of full-time study. Applicants to the program must have completed all pre-nursing prerequisites, have a cumulative GPA of at least 2.50 (last 60 credits only), and have received a B or better in BIOH 201N/BIOH 202N and BIOH 201N/BIOH 202N

Admission to the program requires completion of the application which can be obtained on the Missoula College Health Professions webpage (<http://mc.umt.edu/health/>). The number of students accepted into the A.S.N. program is limited to 18 students in the autumn semester and 18 students in spring semester. All candidates who meet the admission requirements will be considered. Students learn Registered Nursing skills through independent study, lectures, simulations, demonstrations, and advanced skills practice in the nursing lab. Under instructor supervision and preceptorship, students also provide patient care in a variety of acute care settings.

The Associate of Science in Nursing degree program is approved by the State Board of Nursing (301 South Park, Helena, MT 59601). The program

is accredited by the Accreditation Commission for the Education in Nursing (ACEN) (3343 Peachtree Road NE, Suite 850, Atlanta, GA 30326).

Students must provide proof of having met the following requirements to the Nursing Program Administrative Associate on or before the first day of class:

1. Two-step tuberculosis testing using the PPD (Purified Protein Derivative) or chest x-ray (positive results will require a physician's letter before a student can continue in clinical settings);
2. Hepatitis B vaccine and titer. The two- or three-injection Hepatitis B series must be started on or before acceptance into the program so the series is completed by the time clinical begins;
3. Measles, mumps, and rubella (MMR) immunization. For those born before 1956, it is not required to have an MMR, but a titer must be completed;
4. Influenza vaccination or signed declination;
5. Varicella (Chicken Pox) vaccination or positive titer;
6. Basic Life Support (BLS) training Healthcare Provider;
7. Criminal background check, including Sexual Offender Registry;
8. 10-panel drug screen.

Many licensing bodies and employing institutions in health care have increasingly stringent requirements and background checks as conditions for licensing or employment. If a student has concerns about this, they should contact the licensing board for nursing (dlibsdnur@mt.gov).

## Associate of Science - Registered Nursing

- This program requires a minimum GPA of 2.5
- Students must pass all Nursing (NRSG) courses and BIOH 201N/BIOH 202N and BIOM 211N/BIOH 212N with a minimum grade of B.
- It is highly recommended that students have completed SOCI 101S, PSYX 100S, BIOM 250N, and BIOM 251 prior to admission to the program.

### Course Requirements

| Code                                          | Title                                 | Hours |
|-----------------------------------------------|---------------------------------------|-------|
| <b>Complete all of the following courses:</b> |                                       |       |
| BIOH 201N                                     | Human Anatomy & Physiology I          | 4     |
| BIOH 211N                                     | Human Anatomy and Physiology II       | 4     |
| BIOM 250N                                     | Microbiology for Health Sciences      | 3     |
| BIOM 251                                      | Microbiology Health Sciences Lab      | 1     |
| CHMY 121N                                     | Introduction to General Chemistry     | 4     |
| CHMY 122                                      | Introduction to General Chemistry Lab | 1     |
| M 121                                         | College Algebra <sup>1</sup>          | 3-4   |
| or M 115                                      | Probability and Linear Mathematics    |       |
| or M 151                                      | Precalculus                           |       |
| or M 162                                      | Applied Calculus                      |       |
| or M 171                                      | Calculus I                            |       |
| or STAT 216                                   | Introduction to Statistics            |       |
| NRSG 230                                      | Nursing Pharmacology                  | 3     |
| NRSG 231                                      | Nursing Pharmacology Lab              | 2     |
| NRSG 232                                      | Foundations of Nursing                | 3     |

|              |                                                         |   |
|--------------|---------------------------------------------------------|---|
| NRSG 233     | Foundations of Nursing Lab                              | 3 |
| NRSG 234     | Adult Nursing I                                         | 3 |
| NRSG 235     | Adult Nursing I Clinical                                | 2 |
| NRSG 236     | Health and Illness of Maternal Nursing                  | 2 |
| NRSG 237     | Health and Illness of Maternal Nursing Clinical         | 1 |
| NRSG 244     | Adult Nursing II                                        | 3 |
| NRSG 245     | Adult Nursing II Clinical                               | 2 |
| NRSG 246     | Health and Illness of Child and Family Nursing          | 2 |
| NRSG 247     | Health and Illness of Child and Family Nursing Clinical | 1 |
| NRSG 254     | Mental Health Concepts                                  | 3 |
| NRSG 255     | Mental Health Concepts Clinical                         | 1 |
| NRSG 256     | Pathophysiology                                         | 3 |
| NRSG 259     | Adult Nursing III                                       | 3 |
| NRSG 260     | Adult Nursing III Lab                                   | 1 |
| NRSG 261     | Adult Nursing III Clinical                              | 2 |
| NRSG 266     | Managing Client Care for the Registered Nurse           | 2 |
| NRSG 267     | Managing Client Care for the Registered Nurse Clinical  | 2 |
| PSYX 100S    | Intro to Psychology                                     | 3 |
| or SOCI 101S | Introduction to Sociology                               |   |
| WRIT 101     | College Writing I <sup>2</sup>                          | 3 |

**Total Hours**

**70-71**

- <sup>1</sup> M 121 is the recommended math course. Mathematics and writing prerequisite coursework should have been completed no more than 10 years prior to application to any specific health professions program. If mathematics and writing prerequisite coursework is greater than 10 years old, the student should take the writing and mathematics placement exams administered by the college. If the student places into a comparable level to the specific course in question, then that course shall be accepted as a valid prerequisite for the intended program. If the student places below the required standard, then they shall remediate as needed prior to application to the nursing program.
- <sup>2</sup> Students who completed WRIT 101 more than ten years prior to applying to the program must take the Writing Placement test. If the score on the test places the student in WRIT 101, the transfer credits will be accepted for the nursing program requirements. If the student places below the required standard, then they shall remediate as needed prior to application to the nursing program. All students must take WRIT 101 for the nursing program.

## Prerequisite Courses

| Course            | Title                                     | Hours        |
|-------------------|-------------------------------------------|--------------|
| <b>First Year</b> |                                           |              |
| <b>Autumn</b>     |                                           |              |
| BIOH 201N         | Human Anatomy & Physiology I <sup>1</sup> | 4            |
| BIOH 202N         | Human Anatomy and Physiology I Lab        | 0            |
| CHMY 121N         | Introduction to General Chemistry         | 4            |
| CHMY 122          | Introduction to General Chemistry Lab     | 1            |
| M 121             | College Algebra                           | 3-4          |
| or M 115          | or Probability and Linear Mathematics     |              |
| WRIT 101          | College Writing I                         | 3-4          |
| <b>Hours</b>      |                                           | <b>15-17</b> |



|                                  |                                                     |              |
|----------------------------------|-----------------------------------------------------|--------------|
| <b>Spring</b>                    |                                                     |              |
| BIOH 211N                        | Human Anatomy and Physiology II <sup>1</sup>        | 4            |
| BIOM 250N                        | Microbiology for Health Sciences                    | 3            |
| BIOM 251                         | Microbiology Health Sciences Lab                    | 1            |
| PSYX 100S<br>or SOCI 101S        | Intro to Psychology<br>or Introduction to Sociology | 3            |
| Apply to the ASN Nursing Program |                                                     |              |
| <b>Hours</b>                     |                                                     | <b>11</b>    |
| <b>Total Hours</b>               |                                                     | <b>26-28</b> |

## Two Year Plan

| Course             | Title                                                   | Hours     |
|--------------------|---------------------------------------------------------|-----------|
| <b>First Year</b>  |                                                         |           |
| <b>Autumn</b>      |                                                         |           |
| NRSG 230           | Nursing Pharmacology                                    | 3         |
| NRSG 231           | Nursing Pharmacology Lab                                | 2         |
| NRSG 232           | Foundations of Nursing                                  | 3         |
| NRSG 233           | Foundations of Nursing Lab                              | 3         |
| <b>Hours</b>       |                                                         | <b>11</b> |
| <b>Spring</b>      |                                                         |           |
| NRSG 234           | Adult Nursing I                                         | 3         |
| NRSG 235           | Adult Nursing I Clinical                                | 2         |
| NRSG 236           | Health and Illness of Maternal Nursing                  | 2         |
| NRSG 237           | Health and Illness of Maternal Nursing Clinical         | 1         |
| NRSG 256           | Pathophysiology                                         | 3         |
| <b>Hours</b>       |                                                         | <b>11</b> |
| <b>Second Year</b> |                                                         |           |
| <b>Autumn</b>      |                                                         |           |
| NRSG 244           | Adult Nursing II                                        | 3         |
| NRSG 245           | Adult Nursing II Clinical                               | 2         |
| NRSG 246           | Health and Illness of Child and Family Nursing          | 2         |
| NRSG 247           | Health and Illness of Child and Family Nursing Clinical | 1         |
| NRSG 254           | Mental Health Concepts                                  | 3         |
| NRSG 255           | Mental Health Concepts Clinical                         | 1         |
| <b>Hours</b>       |                                                         | <b>12</b> |
| <b>Spring</b>      |                                                         |           |
| NRSG 259           | Adult Nursing III                                       | 3         |
| NRSG 260           | Adult Nursing III Lab                                   | 1         |
| NRSG 261           | Adult Nursing III Clinical                              | 2         |
| NRSG 266           | Managing Client Care for the Registered Nurse           | 2         |
| NRSG 267           | Managing Client Care for the Registered Nurse Clinical  | 2         |
| <b>Hours</b>       |                                                         | <b>10</b> |
| <b>Total Hours</b> |                                                         | <b>44</b> |

**Total Hours 70-72**

<sup>1</sup> Must pass with a minimum grade of B.

*Last updated Fall 2025*

## Respiratory Care A.A.S.

Respiratory Care is an allied health specialty. It is an important part of modern medicine and health care. Respiratory Care encompasses the care of patients with respiratory problems in the hospital, clinic, and home.

Respiratory therapists, as members of a team of health care professionals, work to evaluate, treat, and manage patients of all ages with respiratory illnesses and other cardiopulmonary disorders in a wide variety of clinical settings. Respiratory therapists must behave in

a manner consistent with the standards and ethics of all health care professionals. In addition to performing respiratory care procedures, respiratory therapists are involved in clinical decision-making (such as patient evaluation, treatment selection, and assessment of treatment efficacy) and patient education. The scope of practice for respiratory therapist includes, but is not limited to:

- acquiring and evaluating clinical data;
- assessing the cardiopulmonary status of patients;
- performing and assisting in the performance of prescribed diagnostic studies, such as drawing blood samples, performing blood gas analysis, pulmonary function testing, and applying adequate recording electrodes using polysomnographic techniques;
- utilizing data to assess the appropriateness of prescribed respiratory care;
- establishing therapeutic goals for patients with cardiopulmonary disease;
- participating in the development and modification of respiratory care plans;
- case management of patients with cardiopulmonary and related diseases;
- initiating ordered respiratory care, evaluating and monitoring patients' responses to such care, modifying the prescribed respiratory therapy and cardiopulmonary procedures, and life support endeavors to achieve desired therapeutic objectives;
- initiating and conducting prescribed pulmonary rehabilitation;
- providing patient, family, and community education;
- promoting cardiopulmonary wellness, disease prevention, and disease management;
- participating in life support activities as required; and
- promoting evidence-based medicine, research, and clinical practice guidelines.

Starting salaries are excellent with premiums paid for evening, night, and weekend shifts. Jobs are plentiful throughout the United States. Graduates are eligible to take the credentialing examinations, administered by the National Board for Respiratory Care (NBRC), which include the Therapist Multiple Choice (TMC) examination and the Clinical Simulation Examination (CSE). Upon successfully achieving the designated Low Cut score, the candidate is awarded the Certified Respiratory Therapist credential. When the candidate successfully achieves the High Cut score, instead of the Low Cut score, on the TMC, they are eligible to take the CSE. Once the CSE is successfully passed, the candidate is awarded the Registered Respiratory Therapist (RRT) credential. Licensure requirements in the state of Montana are met by successful achievement of the Certified Respiratory Therapist (CRT) credential.

The goal of the program is, "To prepare graduates with demonstrated competence in the cognitive (knowledge), psychomotor (skills), and affective (behavior) domains of respiratory care practice as performed by registered respiratory therapists (RRTs)" CoARC standard 3.01.

The program is 4 semesters in length which includes the AA prerequisite courses and a summer session. The Respiratory Care Program at The University of Montana Missoula College, is accredited by the Commission on Accreditation for Respiratory Care ([www.coarc.com](http://www.coarc.com/)) (http://www.coarc.com/), 264 Precision Boulevard, Telford, Tennessee 37690.. Graduates receive the degree of Associate of Applied Science in Respiratory Care.

Students accepted to the program are required to rotate to clinical sites outside the Missoula area on a periodic basis. These rotations take place during the spring semester, summer session and autumn semester of the second year. These sites may include, but are not limited to: Kalispell, Ronan, Plains, Butte, Billings, Hamilton, Helena, and Coeur d Alene, Idaho. Transportation and housing are the student's responsibility.

## General Associate Degree Requirements

Additional requirements for graduation can be found on the Degree/Certificate Requirements for Graduation page (p. 36).

Unless otherwise noted in individual program requirements, a minimum grade point average of 2.00 in all work attempted at the University of Montana-Missoula is required for graduation. Please see the Academic Policies and Procedures page (p. 25) for information on how your GPA is calculated.

Courses taken to satisfy the requirements of an associate degree program must be completed with a grade of C- or better unless a higher grade is noted in the program requirements.

## Associate of Applied Science - Respiratory Care

- It is preferred that students have the Pre- Respiratory Care Prerequisite Courses completed by the end of the semester in which they intend to apply to the program (i.e. applying to the program in the spring and completing the core by the end of that spring semester.) However, those students who anticipate completing the core by the end of the summer semester are still encouraged to apply in the spring and may be granted provisional acceptance.
- A minimum GPA of 2.75 for prerequisite courses is required in order to apply to the program.
- The minimum required grade for all courses in the program is B-.

| Code                                              | Title                                          | Hours |
|---------------------------------------------------|------------------------------------------------|-------|
| <b>Pre- Respiratory Care Prerequisite Courses</b> |                                                |       |
| BIOH 201N                                         | Human Anatomy & Physiology I                   | 4     |
| BIOH 211N                                         | Human Anatomy and Physiology II                | 4     |
| COMX 115S                                         | Introduction to Interpersonal Communication    | 3     |
| M 115                                             | Probability and Linear Mathematics             | 3     |
| PSYX 100S                                         | Intro to Psychology                            | 3     |
| PHSX 105N                                         | Fundamentals of Physical Science               | 3     |
|                                                   | or CHMY 121N Introduction to General Chemistry |       |
| WRIT 101                                          | College Writing I                              | 3     |
| <b>Respiratory Care Courses</b>                   |                                                |       |
| Complete all of the following courses:            |                                                |       |
| AHRC 129                                          | Patient Care & Assessment                      | 4     |
| AHRC 131                                          | Respiratory Care Fundamentals I                | 5     |
| AHRC 132                                          | Respiratory Care Fundamentals II               | 3     |
| AHRC 150                                          | Respiratory Care Lab I                         | 1     |
| AHRC 231                                          | Respiratory Critical Care                      | 4     |
| AHRC 232                                          | Respiratory Pathology & Disease                | 3     |
| AHRC 235                                          | Cardiopulmonary Anatomy & Physiology           | 3     |
| AHRC 243                                          | Perinatal & Pediatric Respiratory Care         | 3     |

|                    |                          |           |
|--------------------|--------------------------|-----------|
| AHRC 250           | Respiratory Care Lab II  | 2         |
| AHRC 252           | Respiratory Care Review  | 2         |
| AHRC 255           | Clinical Experience I    | 4         |
| AHRC 260           | Respiratory Care Lab III | 1         |
| AHRC 265           | Clinical Experience II   | 5         |
| AHRC 270           | Respiratory Care Lab IV  | 1         |
| AHRC 275           | Clinical Experience III  | 6         |
| <b>Total Hours</b> |                          | <b>70</b> |

## Prerequisite Courses

| Course                            | Title                                                                    | Hours        |
|-----------------------------------|--------------------------------------------------------------------------|--------------|
| <b>First Year</b>                 |                                                                          |              |
| <b>Autumn</b>                     |                                                                          |              |
| BIOH 201N                         | Human Anatomy & Physiology I                                             | 4            |
| BIOH 202N                         | Human Anatomy and Physiology I Lab                                       | 0            |
| COMX 115S                         | Introduction to Interpersonal Communication                              | 3            |
| M 115<br>or M 121                 | Probability and Linear Mathematics<br>or College Algebra                 | 3-4          |
| PHSX 105N<br>or CHMY 121N         | Fundamentals of Physical Science<br>or Introduction to General Chemistry | 3-4          |
| WRIT 101                          | College Writing I                                                        | 3-4          |
| <b>Hours</b>                      |                                                                          | <b>16-19</b> |
| <b>Spring</b>                     |                                                                          |              |
| BIOH 211N                         | Human Anatomy and Physiology II                                          | 4            |
| BIOH 212N                         | Human Anatomy and Physiology II Lab                                      | 0            |
| PSYX 100S                         | Intro to Psychology                                                      | 3            |
| Apply to Respiratory Care Program |                                                                          |              |
| <b>Hours</b>                      |                                                                          | <b>7</b>     |
| <b>Total Hours</b>                |                                                                          | <b>23-26</b> |

## Two Year Plan

| Course             | Title                                              | Hours     |
|--------------------|----------------------------------------------------|-----------|
| <b>First Year</b>  |                                                    |           |
| <b>Autumn</b>      |                                                    |           |
| AHRC 129           | Patient Care & Assessment <sup>1</sup>             | 4         |
| AHRC 131           | Respiratory Care Fundamentals I <sup>2</sup>       | 5         |
| AHRC 150           | Respiratory Care Lab I <sup>3</sup>                | 1         |
| AHRC 235           | Cardiopulmonary Anatomy & Physiology <sup>4</sup>  | 3         |
| <b>Hours</b>       |                                                    | <b>13</b> |
| <b>Spring</b>      |                                                    |           |
| AHRC 132           | Respiratory Care Fundamentals II <sup>2</sup>      | 3         |
| AHRC 160           | Pharmacology for Respiratory Diseases <sup>3</sup> | 2         |
| AHRC 231           | Respiratory Critical Care <sup>4</sup>             | 4         |
| AHRC 232           | Respiratory Pathology & Disease <sup>2</sup>       | 3         |
| AHRC 250           | Respiratory Care Lab II <sup>3</sup>               | 2         |
| AHRC 255           | Clinical Experience I <sup>1</sup>                 | 4         |
| <b>Hours</b>       |                                                    | <b>18</b> |
| <b>Summer</b>      |                                                    |           |
| AHRC 260           | Respiratory Care Lab III                           | 1         |
| AHRC 265           | Clinical Experience II                             | 5         |
| <b>Hours</b>       |                                                    | <b>6</b>  |
| <b>Second Year</b> |                                                    |           |
| <b>Autumn</b>      |                                                    |           |
| AHRC 243           | Perinatal & Pediatric Respiratory Care             | 3         |
| AHRC 252           | Respiratory Care Review                            | 2         |
| AHRC 270           | Respiratory Care Lab IV                            | 1         |

|          |                         |           |
|----------|-------------------------|-----------|
| AHRC 275 | Clinical Experience III | 6         |
|          | <b>Hours</b>            | <b>12</b> |
|          | <b>Total Hours</b>      | <b>49</b> |

**Total Hours 72-74**<sup>1</sup> 3rd 5-week block<sup>2</sup> 1st 5-week block<sup>3</sup> 2nd 5-week block<sup>4</sup> Runs entire semester.*Last updated Fall 2025*

## Surgical Technology A.A.S.

The Surgical Technology program is designed to prepare the student for employment as a surgical technologist, an integral member of the team of medical practitioners providing surgical care to patients.

Surgical technologists work under the supervision of a surgeon to facilitate the safe and effective conduct of invasive surgical procedures. They ensure that the operating room environment is safe, that equipment functions properly, and that the operative procedure is conducted under conditions that maximize patient safety.

Surgical technologists possess expertise in the theory and application of sterile and aseptic techniques and combine the knowledge of human anatomy, surgical procedures, and implementation of instrumentation and technologies to facilitate a physician's performance of invasive therapeutic and diagnostic procedures.

Students admitted to the University of Montana enter as Associate of Arts (AA) general studies majors with an emphasis in the program of their choice. Students must select the specific prerequisite courses required for their chosen area of study after meeting with the program advisor. Students must apply to the program by October 1 of each year. Students may apply while enrolled in the A.A. prerequisite courses with acceptance to the program to be determined after autumn semester grades are finalized. BIOH 201N/BIOH 202N (Anatomy and Physiology I and lab) must be passed with a minimum grade of B (3.0). The program-specific courses begin spring semester.

Once accepted to the program, a student must complete each Surgical Technology-specific course (those courses with the AHST subject code) with a minimum grade of C (80%) in order to continue in the program. Course grading scales may vary. If a student does not pass the required courses, they will not be able to continue in the program and will need to apply for readmission. If a student is re-admitted, they will be required to retake any AHST courses so that they are completed in the proper consecutive sequence. A student may take any required course a maximum of two (2) times. A student may apply to the program a maximum of two (2) times.

A student will become a member of the Association of Surgical Technologists during the second semester in the program. A student anticipating program completion will take the National Certification Exam prior to graduation. A student who successfully completes the Surgical Technology program is awarded an Associate of Applied Science degree in Surgical Technology. The credential of Certified Surgical Technologist (CST) will be awarded to a student upon passing the National Certification Exam and graduation from the program. This

credential is awarded by the National Board of Surgical Technology and Surgical Assisting (NBSTSA).

Students are required to rotate sites during the clinical portion of their education, which may include rural and critical access facilities. During the final semester of the program, internships will be arranged outside the Missoula area for a minimum of two weeks. Transportation and housing are the student's responsibility. Prior to entering a healthcare facility for clinical experiences, a student will be required to submit a background check and complete a drug screening. Many healthcare facilities have increasingly stringent requirements. A student may be refused entry into a clinical facility based on information disclosed in the background check. If this is a concern, please consult the Program Director. If a student is denied agency access based on the background check, there will be no placement at an alternate site, and the subsequent inability of the student to complete the clinical education will result in the inability to continue in the Surgical Technology program.

The Surgical Technology program is accredited by the Committee on Accreditation of Allied Health Education Programs (CAAHEP), 9355 – 113<sup>th</sup> St. N, #7709; Seminole, FL 33775 ([www.caahep.org](http://www.caahep.org)) upon recommendation of the Accreditation Review Council on Education in Surgical Technology and Surgical Assisting (ARC-STSA), 19751 East Mainstreet, Suite #339; Parker, CO 80138 ([www.arcstsa.org](http://www.arcstsa.org)) (<http://www.arcstsa.org>).

## General Associate Degree Requirements

Additional requirements for graduation can be found on the Degree/Certificate Requirements for Graduation page (p. 36).

Unless otherwise noted in individual program requirements, a minimum grade point average of 2.00 in all work attempted at the University of Montana-Missoula is required for graduation. Please see the Academic Policies and Procedures page (p. 25) for information on how your GPA is calculated.

Courses taken to satisfy the requirements of an associate degree program must be completed with a grade of C- or better unless a higher grade is noted in the program requirements.

## Associate of Applied Science - Surgical Technology

- It is preferred that students have the prerequisite core completed by the end of the semester in which they intend to apply to the program (i.e. applying to the program in the fall semester and completing the core by the end of that fall semester.)
- BIOM 250N/BIOM 251 and AHMS 270E may be taken prior to submission of the program application.

## Course Requirements

| Code                                            | Title                                                               | Hours |
|-------------------------------------------------|---------------------------------------------------------------------|-------|
| <b>Surgical Technology Prerequisite Courses</b> |                                                                     |       |
| Complete all of the following courses:          |                                                                     |       |
| AHMS 144                                        | Medical Terminology                                                 | 3     |
| BIOH 201N                                       | Human Anatomy & Physiology I (must be passed with a minimum of a B) | 4     |
| M 105                                           | Contemporary Mathematics                                            | 3     |
| PSYX 100S                                       | Intro to Psychology                                                 | 3     |

|             |                                   |   |
|-------------|-----------------------------------|---|
| WRIT 121    | Introduction to Technical Writing | 3 |
| or WRIT 101 | College Writing I                 |   |

### Surgical Technology Courses

Complete all of the following courses:

|                         |                                                                          |   |
|-------------------------|--------------------------------------------------------------------------|---|
| AHMS 270E               | Medical Ethics                                                           | 3 |
| AHST 101                | Introduction to Surgical Technology                                      | 3 |
| AHST 115                | Surgical Lab I                                                           | 2 |
| AHST 154                | Surgical Pharmacology                                                    | 3 |
| AHST 200                | Operating Room Techniques                                                | 5 |
| AHST 201                | Surgical Procedures I                                                    | 4 |
| AHST 202                | Surgical Procedures II                                                   | 5 |
| AHST 215                | Surgical Lab II                                                          | 2 |
| AHST 250                | Surgical Clinical I                                                      | 4 |
| AHST 251                | Surgical Clinical II                                                     | 5 |
| AHST 298                | Surgical Internship                                                      | 5 |
| BIOH 211N               | Human Anatomy and Physiology II                                          | 4 |
| BIOM 250N<br>& BIOM 251 | Microbiology for Health Sciences<br>and Microbiology Health Sciences Lab | 4 |

**Total Hours** 65

## Two Year Plan

| Course                               | Title                               | Hours        |
|--------------------------------------|-------------------------------------|--------------|
| <b>First Year</b>                    |                                     |              |
| <b>Autumn</b>                        |                                     |              |
| AHMS 144                             | Medical Terminology                 | 3            |
| BIOH 201N                            | Human Anatomy & Physiology I        | 4            |
| BIOH 202N                            | Human Anatomy and Physiology I Lab  | 0            |
| M 105                                | Contemporary Mathematics            | 3-4          |
| PSYX 100S                            | Intro to Psychology                 | 3            |
| WRIT 101                             | College Writing I                   | 3-4          |
| Apply to Surgical Technology Program |                                     |              |
| <b>Hours</b>                         |                                     | <b>16-18</b> |
| <b>Spring</b>                        |                                     |              |
| AHST 101                             | Introduction to Surgical Technology | 3            |
| AHST 115                             | Surgical Lab I                      | 2            |
| AHST 154                             | Surgical Pharmacology               | 3            |
| BIOH 211N                            | Human Anatomy and Physiology II     | 4            |
| BIOH 212N                            | Human Anatomy and Physiology II Lab | 0            |
| BIOM 250N                            | Microbiology for Health Sciences    | 3            |
| BIOM 251                             | Microbiology Health Sciences Lab    | 1            |
| <b>Hours</b>                         |                                     | <b>16</b>    |
| <b>Second Year</b>                   |                                     |              |
| <b>Autumn</b>                        |                                     |              |
| AHMS 270E                            | Medical Ethics                      | 3            |
| AHST 200                             | Operating Room Techniques           | 5            |
| AHST 201                             | Surgical Procedures I               | 4            |
| AHST 215                             | Surgical Lab II                     | 2            |
| AHST 250                             | Surgical Clinical I                 | 4            |
| <b>Hours</b>                         |                                     | <b>18</b>    |
| <b>Spring</b>                        |                                     |              |
| AHST 202                             | Surgical Procedures II              | 5            |
| AHST 251                             | Surgical Clinical II                | 5            |
| AHST 298                             | Surgical Internship                 | 5            |
| <b>Hours</b>                         |                                     | <b>15</b>    |
| <b>Total Hours</b>                   |                                     | <b>65-67</b> |

## Industrial Technology

The mission of the Department of Industrial Technology is to provide the regional workforce with credentialed, skilled, and competent entry-level technicians and to be responsive to emerging workforce needs. The department encourages the development of teamwork and interpersonal communication skills required in the workplace. It also stresses the importance of a strong work ethic and the value of continuing education and lifelong learning. The instruction for the Department of Industrial Technology Certificate of Applied Science and Associate of Applied Science (A.A.S.) degree programs are primarily delivered at the West Campus at 2795 37th Avenue, Missoula MT 59804. Some instruction is delivered at the River Campus or Mountain Campus.

All students admitted to Industrial Technology programs are required to submit writing placement scores immediately upon admission to the Missoula College or make arrangements to take these assessments as soon as possible. Students who live outside of the Western Montana area may take a writing assessment at their local community college.

## Programs

- Building Information Modeling and Computer Aided Drafting & Design (BIM-CADD) C.A.S. (p. 419)
- Carpentry C.A.S. (p. 420)
- Construction Helper C.T.S. (p. 421)
- Construction Management C.A.S. (p. 421)
- Diesel Technology A.A.S. (p. 422)
- Green Building C.T.S. (p. 422)
- Heavy Equipment Operation C.A.S. (p. 423)
- Sustainable Construction Technology A.A.S. (p. 424)
- Welding Technology A.A.S. (p. 425)
- Welding Technology C.A.S. (p. 426)

## Building Information Modeling and Computer Aided Drafting & Design (BIM-CADD) C.A.S

The BIM-CADD program offers graduates a pathway into professional careers as technicians in civil, mechanical, and architectural drafting. Other career opportunities exist in construction project management, construction support, geographic information systems, mapping, surveying, and technical design. This one-year program prepares students in mathematics, business, writing, and basic construction design, as well as the most current relevant building information modeling and drafting software programs.

## General Certificate Requirements

Additional requirements for graduation can be found on the Degree/Certificate Requirements for Graduation page (p. 36).

Unless otherwise noted in individual program requirements, a minimum grade point average of 2.00 in all work attempted at the University of Montana-Missoula is required for graduation. Please see the Academic Policies and Procedures page (p. 25) for information on how your GPA is calculated.

Courses taken to satisfy the requirements of a major, minor, or certificate program must be completed with a grade of C- or better unless a higher grade is noted in the program requirements.

## Certificate of Applied Science - Building Information Modeling and Computer Aided Drafting and Design (BIM-CADD)

### Course Requirements

| Code                                          | Title                              | Hours        |
|-----------------------------------------------|------------------------------------|--------------|
| <b>Complete all of the following courses:</b> |                                    |              |
| BGEN 105S                                     | Introduction to Business           | 3            |
| CSCI 105                                      | Computer Fluency                   | 3            |
| CSCI 172                                      | Intro to Computer Modeling         | 3            |
| DDSN 113A                                     | Technical Drafting                 | 3            |
| DDSN 114                                      | Introduction to CAD                | 3            |
| DDSN 116                                      | 3D CAD                             | 3            |
| DDSN 244                                      | GIS Mapping                        | 3            |
| DDSN 245                                      | Civil Drafting                     | 4            |
| M 105                                         | Contemporary Mathematics           | 3-4          |
| or M 115                                      | Probability and Linear Mathematics |              |
| or M 121                                      | College Algebra                    |              |
| SRVY 230                                      | Intro to Surveying for Engineers   | 3            |
| WRIT 101                                      | College Writing I                  | 3            |
| or WRIT 121                                   | Introduction to Technical Writing  |              |
| <b>Total Hours</b>                            |                                    | <b>34-35</b> |

## One Year Plan

| Course             | Title                                 | Hours        |
|--------------------|---------------------------------------|--------------|
| <b>First Year</b>  |                                       |              |
| <b>Autumn</b>      |                                       |              |
| CSCI 150           | Introduction to Computer Science      | 3            |
| DDSN 113A          | Technical Drafting                    | 3            |
| DDSN 114           | Introduction to CAD                   | 3            |
| DDSN 166           | Revit I                               | 3            |
| M 121              | College Algebra                       | 3-4          |
| or M 115           | or Probability and Linear Mathematics |              |
| <b>Hours</b>       |                                       | <b>15-16</b> |
| <b>Spring</b>      |                                       |              |
| BGEN 105S          | Introduction to Business              | 3            |
| CSCI 172           | Intro to Computer Modeling            | 3            |
| DDSN 244           | GIS Mapping                           | 3            |
| DDSN 245           | Civil Drafting                        | 4            |
| SRVY 230           | Intro to Surveying for Engineers      | 3            |
| WRIT 101           | College Writing I                     | 3-4          |
| or WRIT 121        | or Introduction to Technical Writing  |              |
| <b>Hours</b>       |                                       | <b>19-20</b> |
| <b>Total Hours</b> |                                       | <b>34-36</b> |

*Last Updated Fall 2025*

## Carpentry C.A.S.

This one-year certificate in Carpentry is for students looking to obtain a hands-on working knowledge of basic carpentry skills. Students will get instruction and practice in entry-level skills, including site preparation

and layout, concrete forming and placement, residential framing, roofing, siding, and window installation.

## General Certificate Requirements

Additional requirements for graduation can be found on the Degree/ Certificate Requirements for Graduation page (p. 36).

Unless otherwise noted in individual program requirements, a minimum grade point average of 2.00 in all work attempted at the University of Montana-Missoula is required for graduation. Please see the Academic Policies and Procedures page (p. 25) for information on how your GPA is calculated.

Courses taken to satisfy the requirements of a major, minor, or certificate program must be completed with a grade of C- or better unless a higher grade is noted in the program requirements.

## Certificate of Applied Science - Carpentry Course Requirements

| Code                                          | Title                                                   | Hours     |
|-----------------------------------------------|---------------------------------------------------------|-----------|
| <b>Complete all of the following courses:</b> |                                                         |           |
| COMX 102                                      | Interpersonal Skills in the Workplace                   | 1         |
| CSTN 120                                      | Carpentry Basics & Rough-In Framing                     | 5         |
| CSTN 122                                      | Beginning Carpentry Lab                                 | 5         |
| CSTN 142                                      | Interior & Exterior Finish Carpentry                    | 4         |
| CSTN 143                                      | Intermediate Carpentry Lab                              | 4         |
| CSTN 171                                      | Site Prep, Foundation, and Concrete Installation        | 3         |
| DDSN 114                                      | Introduction to CAD                                     | 3         |
| or DDSN 166                                   | Revit I                                                 |           |
| M 105                                         | Contemporary Mathematics (or higher)                    | 3         |
| OSH 130                                       | Introduction to Trades and Trade Safety/ Job Site Ready | 3         |
| WRIT 101                                      | College Writing I                                       | 3         |
| <b>Total Hours</b>                            |                                                         | <b>34</b> |

## One Year Plan

| Course             | Title                                                               | Hours        |
|--------------------|---------------------------------------------------------------------|--------------|
| <b>First Year</b>  |                                                                     |              |
| <b>Autumn</b>      |                                                                     |              |
| CSTN 120           | Carpentry Basics & Rough-In Framing <sup>1</sup>                    | 5            |
| CSTN 122           | Beginning Carpentry Lab <sup>1</sup>                                | 5            |
| CSTN 171           | Site Prep, Foundation, and Concrete Installation <sup>2</sup>       | 3            |
| DDSN 114           | Introduction to CAD                                                 | 3            |
| or DDSN 166        | or Revit I                                                          |              |
| OSH 130            | Introduction to Trades and Trade Safety/Job Site Ready <sup>3</sup> | 3            |
| <b>Hours</b>       |                                                                     | <b>19</b>    |
| <b>Spring</b>      |                                                                     |              |
| COMX 102           | Interpersonal Skills in the Workplace                               | 1            |
| CSTN 142           | Interior & Exterior Finish Carpentry <sup>4</sup>                   | 4            |
| CSTN 143           | Intermediate Carpentry Lab <sup>4</sup>                             | 4            |
| WRIT 101           | College Writing I                                                   | 3-4          |
| M 105              | Contemporary Mathematics                                            | 3-4          |
| <b>Hours</b>       |                                                                     | <b>15-17</b> |
| <b>Total Hours</b> |                                                                     | <b>34-36</b> |

<sup>1</sup> weeks 6-16



- <sup>2</sup> weeks 2-5  
<sup>3</sup> week 1  
<sup>4</sup> weeks 9-16

*Last Updated Fall 2025*

## Construction Helper C.T.S.

This one-semester certificate program is designed to prepare candidates for entry-level positions across the construction industry. Designed to make students job-site ready, the program covers job-site safety as well as a hands on introduction to site and foundation work and basic carpentry.

### General Certificate Requirements

Additional requirements for graduation can be found on the Degree/Certificate Requirements for Graduation page (p. 36).

Unless otherwise noted in individual program requirements, a minimum grade point average of 2.00 in all work attempted at the University of Montana-Missoula is required for graduation. Please see the Academic Policies and Procedures page (p. 25) for information on how your GPA is calculated.

Courses taken to satisfy the requirements of a major, minor, or certificate program must be completed with a grade of C- or better unless a higher grade is noted in the program requirements.

## Certificate of Technical Studies - Construction Helper

### Course Requirements

| Code                                          | Title                                                  | Hours     |
|-----------------------------------------------|--------------------------------------------------------|-----------|
| <b>Complete all of the following courses:</b> |                                                        |           |
| CSTN 120                                      | Carpentry Basics & Rough-In Framing                    | 5         |
| CSTN 122                                      | Beginning Carpentry Lab                                | 5         |
| CSTN 171                                      | Site Prep, Foundation, and Concrete Installation       | 3         |
| OSH 130                                       | Introduction to Trades and Trade Safety/Job Site Ready | 3         |
| <b>Total Hours</b>                            |                                                        | <b>16</b> |

### One Semester Plan

| Course             | Title                                                  | Hours     |
|--------------------|--------------------------------------------------------|-----------|
| <b>First Year</b>  |                                                        |           |
| <b>Autumn</b>      |                                                        |           |
| CSTN 120           | Carpentry Basics & Rough-In Framing                    | 5         |
| CSTN 122           | Beginning Carpentry Lab                                | 5         |
| CSTN 171           | Site Prep, Foundation, and Concrete Installation       | 3         |
| OSH 130            | Introduction to Trades and Trade Safety/Job Site Ready | 3         |
| <b>Hours</b>       |                                                        | <b>16</b> |
| <b>Total Hours</b> |                                                        | <b>16</b> |

*Last Updated Fall 2025*

## Construction Management C.A.S.

The program provides students the opportunity to learn construction skills in a competency based learning environment. In addition to general

education courses, students in the program learn the various steps of becoming a successful tradesperson in the construction industry, including safe practices, management and skills competencies. Students construct real world projects and can earn a Certificate of Applied Science and continue for another year to earn an Associate of Applied Science Degree.

### General Certificate Requirements

Additional requirements for graduation can be found on the Degree/Certificate Requirements for Graduation page (p. 36).

Unless otherwise noted in individual program requirements, a minimum grade point average of 2.00 in all work attempted at the University of Montana-Missoula is required for graduation. Please see the Academic Policies and Procedures page (p. 25) for information on how your GPA is calculated.

Courses taken to satisfy the requirements of a major, minor, or certificate program must be completed with a grade of C- or better unless a higher grade is noted in the program requirements.

## Certificate of Applied Science - Construction Management

### Course Requirements

| Code                                          | Title                                            | Hours     |
|-----------------------------------------------|--------------------------------------------------|-----------|
| <b>Complete all of the following courses:</b> |                                                  |           |
| ACTG 101                                      | Accounting Procedures I                          | 3         |
| BGEN 105S                                     | Introduction to Business                         | 3         |
| COMX 111A                                     | Introduction to Public Speaking                  | 3         |
| or COMX 115S                                  | Introduction to Interpersonal Communication      |           |
| CSTN 120                                      | Carpentry Basics & Rough-In Framing              | 5         |
| CSTN 171                                      | Site Prep, Foundation, and Concrete Installation | 3         |
| CSTN 261                                      | Building Management                              | 4         |
| CSTN 282                                      | Green Building Concept & Design I                | 4         |
| CSTN 298                                      | SCT Internship                                   | 3         |
| M 105                                         | Contemporary Mathematics (or higher)             | 3         |
| WRIT 101                                      | College Writing I                                | 3         |
| <b>Total Hours</b>                            |                                                  | <b>34</b> |

### One Year Plan

| Course            | Title                                                         | Hours     |
|-------------------|---------------------------------------------------------------|-----------|
| <b>First Year</b> |                                                               |           |
| <b>Autumn</b>     |                                                               |           |
| ACTG 101          | Accounting Procedures I                                       | 3         |
| BGEN 105S         | Introduction to Business                                      | 3         |
| COMX 111A         | Introduction to Public Speaking                               | 3         |
| or COMX 115S      | or Introduction to Interpersonal Communication                |           |
| CSTN 120          | Carpentry Basics & Rough-In Framing <sup>1</sup>              | 5         |
| CSTN 171          | Site Prep, Foundation, and Concrete Installation <sup>2</sup> | 3         |
| <b>Hours</b>      |                                                               | <b>17</b> |
| <b>Spring</b>     |                                                               |           |
| CSTN 261          | Building Management <sup>3</sup>                              | 4         |
| CSTN 282          | Green Building Concept & Design I <sup>4</sup>                | 4         |
| CSTN 298          | SCT Internship                                                | 1-6       |
| M 105             | Contemporary Mathematics                                      | 3-4       |

|          |                   |       |
|----------|-------------------|-------|
| WRIT 101 | College Writing I | 3-4   |
|          | Hours             | 15-22 |
|          | Total Hours       | 32-39 |

- <sup>1</sup> weeks 6-15  
<sup>2</sup> weeks 2-5  
<sup>3</sup> weeks 1-8  
<sup>5</sup> weeks 9-16

Last Updated Fall 2025

## Diesel Technology A.A.S.

The mission of the Diesel Technology Program is to provide the regional workforce with credentialed, skilled and competent diesel technicians and to be responsive to emerging workforce needs.

Students in the Diesel Technology program train to be diesel mechanics that repair diesel-powered trucks and heavy equipment. Students study hydraulics, electrical systems, fuel systems, power trains, air conditioning, brakes and suspension, engine theory, and engine diagnosis, beginning with basic principles and proceeding to an advanced level of system technology. Along with these core courses, students take classes in welding, machining, computers, communications, and math. Credit for independent study is available to those desiring additional instruction in diesel mechanics. Students who complete the program successfully are awarded the Associate of Applied Science degree.

The program often has a waiting list. Prospective students are encouraged to apply one year prior to anticipated school attendance.

## General Associate Degree Requirements

Additional requirements for graduation can be found on the Degree/Certificate Requirements for Graduation page (p. 36).

Unless otherwise noted in individual program requirements, a minimum grade point average of 2.00 in all work attempted at the University of Montana-Missoula is required for graduation. Please see the Academic Policies and Procedures page (p. 25) for information on how your GPA is calculated.

Courses taken to satisfy the requirements of an associate degree program must be completed with a grade of C- or better unless a higher grade is noted in the program requirements.

## Associate of Applied Science - Diesel Technology Course Requirements

| Code                                          | Title                                 | Hours |
|-----------------------------------------------|---------------------------------------|-------|
| <b>Complete all of the following courses:</b> |                                       |       |
| BGEN 215                                      | Career Readiness                      | 3     |
| COMX 102                                      | Interpersonal Skills in the Workplace | 1     |
| DST 120                                       | Electrical Systems                    | 8     |
| DST 128                                       | Engine Service I                      | 4     |
| DST 135                                       | Power Trains                          | 7     |
| DST 221                                       | Brakes, Suspension, and Undercarriage | 6     |
| DST 225                                       | Hydraulics                            | 6     |

|                    |                                              |           |
|--------------------|----------------------------------------------|-----------|
| DST 229            | Engine Service II                            | 7         |
| DST 230            | Air Conditioning                             | 3         |
| DST 231            | Fuel Systems                                 | 5         |
| DST 235            | Advanced Power Trains                        | 2         |
| M 105              | Contemporary Mathematics                     | 3         |
| MCH 115            | Related Metals Processes III                 | 3         |
| OSH 110            | OSHA 10 Hour Safety Training                 | 1         |
| WLDG 101           | Welding Fundamentals of Auto Tech and Diesel | 2         |
| WRIT 101           | College Writing I                            | 3         |
| <b>Total Hours</b> |                                              | <b>64</b> |

## Two Year Plan

| Course             | Title                                                     | Hours        |
|--------------------|-----------------------------------------------------------|--------------|
| <b>First Year</b>  |                                                           |              |
| <b>Autumn</b>      |                                                           |              |
| DST 128            | Engine Service I <sup>1</sup>                             | 4            |
| DST 135            | Power Trains <sup>2</sup>                                 | 7            |
| M 105              | Contemporary Mathematics                                  | 3-4          |
| WLDG 101           | Welding Fundamentals of Auto Tech and Diesel <sup>1</sup> | 2            |
| WRIT 101           | College Writing I                                         | 3-4          |
| <b>Hours</b>       |                                                           | <b>19-21</b> |
| <b>Spring</b>      |                                                           |              |
| COMX 102           | Interpersonal Skills in the Workplace <sup>1</sup>        | 1            |
| DST 120            | Electrical Systems                                        | 8            |
| MCH 115            | Related Metals Processes III <sup>2</sup>                 | 3            |
| OSH 110            | OSHA 10 Hour Safety Training <sup>1</sup>                 | 1            |
| WLDG 191           | Special Topics <sup>1</sup>                               | 2            |
| <b>Hours</b>       |                                                           | <b>15</b>    |
| <b>Second Year</b> |                                                           |              |
| <b>Autumn</b>      |                                                           |              |
| BGEN 215           | Career Readiness                                          | 3            |
| DST 221            | Brakes, Suspension, and Undercarriage                     | 6            |
| DST 225            | Hydraulics                                                | 6            |
| <b>Hours</b>       |                                                           | <b>15</b>    |
| <b>Spring</b>      |                                                           |              |
| DST 229            | Engine Service II                                         | 7            |
| DST 230            | Air Conditioning                                          | 3            |
| DST 231            | Fuel Systems                                              | 5            |
| DST 235            | Advanced Power Trains                                     | 2            |
| <b>Hours</b>       |                                                           | <b>17</b>    |
| <b>Total Hours</b> |                                                           | <b>66-68</b> |

- <sup>1</sup> weeks 1-7  
<sup>2</sup> weeks 8-16

Last Updated Fall 2025

## Green Building C.T.S.

The mission of this one-year certificate is to give students an overview of the green building industry with instruction and hands-on experience in the principles of green building, energy efficiency, green rating systems, including the ICC700 and LLED programs, and prepare them for further study or entry-level careers in the emerging green building industry.

## General Certificate Requirements

Additional requirements for graduation can be found on the Degree/Certificate Requirements for Graduation page (p. 36).

Unless otherwise noted in individual program requirements, a minimum grade point average of 2.00 in all work attempted at the University of Montana-Missoula is required for graduation. Please see the Academic Policies and Procedures page (p. 25) for information on how your GPA is calculated.

Courses taken to satisfy the requirements of a major, minor, or certificate program must be completed with a grade of C- or better unless a higher grade is noted in the program requirements.

## Certificate of Technical Studies - Green Building

### Course Requirements

| Code                                          | Title                              | Hours     |
|-----------------------------------------------|------------------------------------|-----------|
| <b>Complete all of the following courses:</b> |                                    |           |
| BGEN 160S                                     | Issues in Sustainability           | 3         |
| CSTN 261                                      | Building Management                | 4         |
| CSTN 282                                      | Green Building Concept & Design I  | 4         |
| CSTN 283                                      | Green Building Concept & Design II | 3         |
| CSTN 286                                      | Advanced Wood Buildings            | 3         |
| CSTN 295                                      | Practicum                          | 1         |
| <b>Total Hours</b>                            |                                    | <b>18</b> |

## One Year Plan

| Course             | Title                                           | Hours     |
|--------------------|-------------------------------------------------|-----------|
| <b>First Year</b>  |                                                 |           |
| <b>Autumn</b>      |                                                 |           |
| BGEN 160S          | Issues in Sustainability                        | 3         |
| CSTN 261           | Building Management <sup>1</sup>                | 4         |
| CSTN 282           | Green Building Concept & Design I <sup>2</sup>  | 4         |
| <b>Hours</b>       |                                                 | <b>11</b> |
| <b>Spring</b>      |                                                 |           |
| CSTN 283           | Green Building Concept & Design II <sup>1</sup> | 3         |
| CSTN 286           | Advanced Wood Buildings <sup>1</sup>            | 3         |
| CSTN 295           | Practicum                                       | 1         |
| <b>Hours</b>       |                                                 | <b>7</b>  |
| <b>Total Hours</b> |                                                 | <b>18</b> |

<sup>1</sup> weeks 1-8

<sup>2</sup> weeks 9-16

*Last Updated Fall 2025*

## Heavy Equipment Operation C.A.S.

The mission of the Heavy Equipment Operation Program is to provide the regional workforce with credentialed, skilled and competent heavy equipment operators and to be responsive to emerging workforce needs. The Heavy Equipment Operation Program provides students with a basic understanding of fundamental machine functions and is designed to develop apprentice-level skills in the operation of heavy equipment.

Students are trained to safely and properly operate and maintain a variety of heavy equipment, including crawler-tractors, graders, scrapers, front-

end loaders, excavators, backhoes, and dump trucks. Students develop an understanding of basic surveying techniques, receive extensive training in safety regulations and procedures, and learn how to handle controls precisely and judge distances accurately. The program also promotes an awareness of potential job site difficulties and allows students to gain knowledge of the work ethic expected by employers in the construction industry.

A Certificate of Applied Science is awarded upon successful completion of the program.

This is an Autumn Semester entry program, and enrollment is limited.

## General Certificate Requirements

Additional requirements for graduation can be found on the Degree/Certificate Requirements for Graduation page (p. 36).

Unless otherwise noted in individual program requirements, a minimum grade point average of 2.00 in all work attempted at the University of Montana-Missoula is required for graduation. Please see the Academic Policies and Procedures page (p. 25) for information on how your GPA is calculated.

Courses taken to satisfy the requirements of a major, minor, or certificate program must be completed with a grade of C- or better unless a higher grade is noted in the program requirements.

## Certificate of Applied Science - Heavy Equipment Operation

### Course Requirements

| Code                                          | Title                                       | Hours     |
|-----------------------------------------------|---------------------------------------------|-----------|
| <b>Complete all of the following courses:</b> |                                             |           |
| COMX 102                                      | Interpersonal Skills in the Workplace       | 1         |
| HEO 146                                       | Safety & Basic Controls                     | 5         |
| HEO 148                                       | Operational Skill Building                  | 5         |
| HEO 150                                       | Job Simulation                              | 6         |
| HEO 151                                       | Service & Maintenance                       | 2         |
| HEO 153                                       | Construction Theory & Specialized Equipment | 5         |
| M 105                                         | Contemporary Mathematics                    | 3         |
| OSH 110                                       | OSHA 10 Hour Safety Training                | 1         |
| SRVY 108                                      | Construction Surveying                      | 2         |
| WLDG 103                                      | Welding Fundamentals of Construction Trades | 2         |
| WRIT 101                                      | College Writing I                           | 3         |
| <b>Total Hours</b>                            |                                             | <b>35</b> |

## One Year Plan

| Course            | Title                        | Hours |
|-------------------|------------------------------|-------|
| <b>First Year</b> |                              |       |
| <b>Autumn</b>     |                              |       |
| HEO 146           | Safety & Basic Controls      | 5     |
| HEO 148           | Operational Skill Building   | 5     |
| HEO 151           | Service & Maintenance        | 2     |
| OSH 110           | OSHA 10 Hour Safety Training | 1     |

|                    |                                             |              |
|--------------------|---------------------------------------------|--------------|
| SRVY 108           | Construction Surveying                      | 2            |
| <b>Hours</b>       |                                             | <b>15</b>    |
| <b>Spring</b>      |                                             |              |
| COMX 102           | Interpersonal Skills in the Workplace       | 1            |
| HEO 150            | Job Simulation                              | 6            |
| HEO 153            | Construction Theory & Specialized Equipment | 5            |
| M 105              | Contemporary Mathematics                    | 3-4          |
| WLDG 103           | Welding Fundamentals of Construction Trades | 2            |
| WRIT 101           | College Writing I                           | 3-4          |
| <b>Hours</b>       |                                             | <b>20-22</b> |
| <b>Total Hours</b> |                                             | <b>35-37</b> |

Last Updated Fall 2025

## Sustainable Construction Technology A.A.S.

This two-year Associate of Applied Science course of study is designed to prepare students for a wide range of building industry career paths. Students will get hands-on training in various job-site skills, including safety training as well as instruction and practice in entry-level skills, including site preparation and layout, concrete forming and placement, residential framing, roofing, siding, and window installation. Students pursuing a certification in Green Building or Construction Management can apply those credits toward this degree.

Additionally, students will be exposed to basic job-site control practices, scheduling, estimating, and the major guiding principles of green building and sustainable construction. Working on an actual on-site modular home, students completing the program will have experience and exposure to all aspects of residential construction, including foundations, framing, roofing, siding, insulation, drywall, cabinetry, floor finishes, and the process of basic project management.

## General Associate Degree Requirements

Additional requirements for graduation can be found on the Degree/Certificate Requirements for Graduation page (p. 36).

Unless otherwise noted in individual program requirements, a minimum grade point average of 2.00 in all work attempted at the University of Montana-Missoula is required for graduation. Please see the Academic Policies and Procedures page (p. 25) for information on how your GPA is calculated.

Courses taken to satisfy the requirements of an associate degree program must be completed with a grade of C- or better unless a higher grade is noted in the program requirements.

## Associate of Applied Science - Sustainable Construction Technology Course Requirements

| Code                                          | Title                                 | Hours |
|-----------------------------------------------|---------------------------------------|-------|
| <b>Complete all of the following courses:</b> |                                       |       |
| BGEN 215                                      | Career Readiness                      | 3     |
| or BGEN 105S                                  | Introduction to Business              |       |
| COMX 102                                      | Interpersonal Skills in the Workplace | 1     |
| CSTN 120                                      | Carpentry Basics & Rough-In Framing   | 5     |
| CSTN 122                                      | Beginning Carpentry Lab               | 5     |

|                                                                  |                                                        |           |
|------------------------------------------------------------------|--------------------------------------------------------|-----------|
| CSTN 142                                                         | Interior & Exterior Finish Carpentry                   | 4         |
| CSTN 143                                                         | Intermediate Carpentry Lab                             | 4         |
| CSTN 171                                                         | Site Prep, Foundation, and Concrete Installation       | 3         |
| CSTN 261                                                         | Building Management                                    | 4         |
| CSTN 282                                                         | Green Building Concept & Design I                      | 4         |
| CSTN 298                                                         | SCT Internship                                         | 3         |
| DDSN 114                                                         | Introduction to CAD                                    | 3         |
| or DDSN 166                                                      | Revit I                                                |           |
| M 105                                                            | Contemporary Mathematics (or higher)                   | 3         |
| OSH 130                                                          | Introduction to Trades and Trade Safety/Job Site Ready | 3         |
| WRIT 101                                                         | College Writing I                                      | 3         |
| <b>Electives - Complete 15 credits of the following courses:</b> |                                                        | <b>15</b> |
| ACTG 101                                                         | Accounting Procedures I                                |           |
| BGEN 160S                                                        | Issues in Sustainability                               |           |
| COMX 111A                                                        | Introduction to Public Speaking                        |           |
| COMX 115S                                                        | Introduction to Interpersonal Communication            |           |
| CSTN 205                                                         | Advanced Carpentry Lecture                             |           |
| CSTN 206                                                         | Advanced Carpentry Lab                                 |           |
| CSTN 283                                                         | Green Building Concept & Design II                     |           |
| CSTN 286                                                         | Advanced Wood Buildings                                |           |
| CSTN 291                                                         | Special Topics                                         |           |
| CSTN 295                                                         | Practicum                                              |           |
| CSTN 299                                                         | Capstone: Carpentry                                    |           |
| DDSN 191                                                         | Special Topics                                         |           |
| DDSN 244                                                         | GIS Mapping                                            |           |
| DDSN 245                                                         | Civil Drafting                                         |           |
| HEO 191                                                          | Special Topics                                         |           |
| SRVY 230                                                         | Intro to Surveying for Engineers                       |           |
| THTR 102A                                                        | Introduction to Theatre Design                         |           |
| THTR 106                                                         | Theatre Production I: Run Crew                         |           |
| THTR 107A                                                        | Theatre Production I: Construction Crew                |           |
| THTR 202                                                         | Stagecraft I                                           |           |
| WLDG 103                                                         | Welding Fundamentals of Construction Trades            |           |
| WLDG 145                                                         | Fabrication Basics                                     |           |
| <b>Total Hours</b>                                               |                                                        | <b>63</b> |

## Two Year Plan

| Course            | Title                                                         | Hours     |
|-------------------|---------------------------------------------------------------|-----------|
| <b>First Year</b> |                                                               |           |
| <b>Autumn</b>     |                                                               |           |
| CSTN 120          | Carpentry Basics & Rough-In Framing <sup>1</sup>              | 5         |
| CSTN 122          | Beginning Carpentry Lab <sup>1</sup>                          | 5         |
| CSTN 171          | Site Prep, Foundation, and Concrete Installation <sup>2</sup> | 3         |
| DDSN 114          | Introduction to CAD                                           | 3         |
| or DDSN 166       | or Revit I                                                    |           |
| OSH 130           | Introduction to Trades and Trade Safety/Job Site Ready        | 3         |
| <b>Hours</b>      |                                                               | <b>19</b> |
| <b>Spring</b>     |                                                               |           |
| COMX 102          | Interpersonal Skills in the Workplace <sup>5</sup>            | 1         |

|                          |                                                   |              |
|--------------------------|---------------------------------------------------|--------------|
| CSTN 142                 | Interior & Exterior Finish Carpentry <sup>4</sup> | 4            |
| CSTN 143                 | Intermediate Carpentry Lab <sup>4</sup>           | 4            |
| Elective                 |                                                   |              |
| M 105                    | Contemporary Mathematics                          | 3-4          |
| WRIT 101                 | College Writing I                                 | 3-4          |
| <b>Hours</b>             |                                                   | <b>15-17</b> |
| <b>Second Year</b>       |                                                   |              |
| <b>Autumn</b>            |                                                   |              |
| CSTN 261                 | Building Management <sup>5</sup>                  | 4            |
| CSTN 282                 | Green Building Concept & Design I <sup>4</sup>    | 4            |
| CSTN 291                 | Special Topics <sup>4</sup>                       | 3            |
| CSTN 298                 | SCT Internship                                    | 3            |
| CSTN 299                 | Capstone: Carpentry <sup>5</sup>                  | 2            |
| <b>Hours</b>             |                                                   | <b>16</b>    |
| <b>Spring</b>            |                                                   |              |
| BGEN 215<br>or BGEN 105S | Career Readiness<br>or Introduction to Business   | 3            |
| CSTN 205                 | Advanced Carpentry Lecture <sup>5</sup>           | 6            |
| CSTN 206                 | Advanced Carpentry Lab <sup>5</sup>               | 2            |
| Elective                 |                                                   |              |
| Elective                 |                                                   |              |
| Elective                 |                                                   |              |
| <b>Hours</b>             |                                                   | <b>11</b>    |
| <b>Total Hours</b>       |                                                   | <b>61-63</b> |

<sup>1</sup> Weeks 6-16<sup>2</sup> Weeks 2-5<sup>3</sup> Week 1<sup>4</sup> Weeks 9-16<sup>5</sup> Weeks 1-8*Last Updated Fall 2025*

## Welding Technology A.A.S.

The mission of the Welding Technology Program is to provide the regional workforce with credentialed, skilled, and competent welders and to be responsive to emerging workforce needs. The Welding Technology Program prepares students to operate and troubleshoot a variety of welding power sources and related equipment. The program prepares students to solve problems using computational skills and other problem-solving techniques essential to welding and steel fabrication. It also encourages the development of the teamwork and interpersonal skills required on the job.

Welding students develop skills in six different welding processes: oxyacetylene (OAW), shielded metal arc (SMAW), gas metal arc (GMAW), flux core arc, (FCAW), submerged arc (SAW), and gas tungsten arc welding (GTAW). Students also develop additional skills, such as blueprint reading and layout, metallurgy, and gain an understanding of how heating and cooling cycles affect the properties of metals. Students also study the design of jigs and fixtures and how to incorporate these into an automated welding system.

Courses such as Computer Aided Design and Drafting (CADD), OSHA Rules and Compliance, and Related Metals Processes provide for a solid background in the metals industry. Fabrication basics and Metal Design and Construction utilize all of the gained knowledge in an instructor-approved/student-designed project.

Welding technology students have the opportunity to become certified to American Welding Society Standards and receive documentation stating qualifications.

Students are awarded the Certificate of Applied Science upon successful completion of the first year of the Welding Technology program. Students are awarded the Associate of Applied Science degree upon successfully completing the two-year program.

The program often has a waiting list.

## General Associate Degree Requirements

Additional requirements for graduation can be found on the Degree/Certificate Requirements for Graduation page (p. 36).

Unless otherwise noted in individual program requirements, a minimum grade point average of 2.00 in all work attempted at the University of Montana-Missoula is required for graduation. Please see the Academic Policies and Procedures page (p. 25) for information on how your GPA is calculated.

Courses taken to satisfy the requirements of an associate degree program must be completed with a grade of C- or better unless a higher grade is noted in the program requirements.

## Associate of Applied Science - Welding Technology

### Course Requirements

| Code                                          | Title                                     | Hours     |
|-----------------------------------------------|-------------------------------------------|-----------|
| <b>Complete all of the following courses:</b> |                                           |           |
| BGEN 215                                      | Career Readiness                          | 3         |
| COMX 102                                      | Interpersonal Skills in the Workplace     | 1         |
| DDSN 113A                                     | Technical Drafting                        | 3         |
| DDSN 114                                      | Introduction to CAD                       | 3         |
| M 105                                         | Contemporary Mathematics                  | 3-4       |
| MCH 114                                       | Related Metals Processes II               | 3         |
| OSH 110                                       | OSHA 10 Hour Safety Training              | 1         |
| WLDG 117                                      | Blueprint Reading & Welding Symbols       | 3         |
| WLDG 145                                      | Fabrication Basics                        | 4         |
| WLDG 180                                      | Shielded Metal Arc Welding                | 4         |
| WLDG 187                                      | Flux Core Arc Welding                     | 4         |
| WLDG 205                                      | Applied Metallurgy                        | 4         |
| WLDG 210                                      | Pipe Welding - Integrated Lab             | 4         |
| WLDG 215                                      | GTAW (integrated lab)                     | 4         |
| WLDG 245                                      | Metal Fabrication Design and Construction | 4         |
| WLDG 275                                      | Gas Metal Arc Welding                     | 4         |
| WLDG 280                                      | Welding Testing Certification             | 2         |
| WLDG 285                                      | Automation in Welding                     | 3         |
| WRIT 101                                      | College Writing I                         | 3         |
| <b>Total Hours</b>                            |                                           | <b>60</b> |



Two Year Plan

| Course             | Title                                              | Hours        |
|--------------------|----------------------------------------------------|--------------|
| <b>First Year</b>  |                                                    |              |
| <b>Autumn</b>      |                                                    |              |
| COMX 102           | Interpersonal Skills in the Workplace <sup>1</sup> | 1            |
| DDSN 113A          | Technical Drafting <sup>2</sup>                    | 3            |
| M 105              | Contemporary Mathematics                           | 3-4          |
| MCH 114            | Related Metals Processes II <sup>3</sup>           | 3            |
| WLDG 180           | Shielded Metal Arc Welding                         | 4            |
| WRIT 101           | College Writing I                                  | 3-4          |
| <b>Hours</b>       |                                                    | <b>17-19</b> |
| <b>Spring</b>      |                                                    |              |
| BGEN 215           | Career Readiness                                   | 3            |
| OSH 110            | OSHA 10 Hour Safety Training <sup>4</sup>          | 1            |
| WLDG 117           | Blueprint Reading & Welding Symbols                | 3            |
| WLDG 145           | Fabrication Basics                                 | 4            |
| WLDG 187           | Flux Core Arc Welding <sup>4</sup>                 | 4            |
| <b>Hours</b>       |                                                    | <b>15</b>    |
| <b>Second Year</b> |                                                    |              |
| <b>Autumn</b>      |                                                    |              |
| DDSN 114           | Introduction to CAD                                | 3            |
| WLDG 205           | Applied Metallurgy                                 | 4            |
| WLDG 210           | Pipe Welding - Integrated Lab                      | 4            |
| WLDG 215           | Gas Tungsten Arc Welding (integrated lab)          | 4            |
| <b>Hours</b>       |                                                    | <b>15</b>    |
| <b>Spring</b>      |                                                    |              |
| WLDG 245           | Metal Fabrication Design and Construction          | 4            |
| WLDG 275           | Gas Metal Arc Welding <sup>4</sup>                 | 4            |
| WLDG 280           | Welding Testing Certification                      | 2            |
| WLDG 285           | Automation in Welding                              | 3            |
| <b>Hours</b>       |                                                    | <b>13</b>    |
| <b>Total Hours</b> |                                                    | <b>60-62</b> |

<sup>1</sup> weeks 8-16

<sup>2</sup> If additional credits are needed, DDSN 114 may be added this semester.

<sup>3</sup> weeks 1-7

<sup>4</sup> weeks 1-8

Last Updated Fall 2025

Welding Technology C.A.S.

The mission of the Welding Technology Program is to provide the regional workforce with credentialed, skilled, and competent welders and to be responsive to emerging workforce needs. The Welding Technology Program prepares students to operate and troubleshoot a variety of welding power sources and related equipment. The program prepares students to solve problems found within the welding industry using computational skills and other problem-solving techniques essential to welding and steel fabrication. It also encourages the development of teamwork and interpersonal skills required on the job.

Welding students develop skills in six different welding processes oxyacetylene (OAW), shielded metal arc (SMAW), gas metal arc (GMAW), flux core arc, (FCAW), submerged arc (SAW), and gas tungsten arc welding (GTAW). Beyond the development of welding skills and understanding of the process, they also study other skills, such as blueprint reading and layout, metallurgy, and gain an understanding of how heating and cooling cycles affect the properties of metals. Students

also study the design of jigs and fixtures and how to incorporate these into an automated welding system.

The Welding Technology Program also has courses that provide for a solid background in the metals industry. Such courses are Computer Aided Design and Drafting (CADD), OSHA Rules and Compliance, and Related Metals Processes. Fabrication basics and Metal Design and Construction utilize all of the gained knowledge with an instructor approved/student designed project.

Welding technology students have the opportunity to become certified to American Welding Society Standards and receive documentation stating qualifications.

Students are awarded the Certificate of Applied Science upon successful completion of the first year of the Welding Technology program. Students are awarded the Associate of Applied Science degree upon successfully completing the two-year program.

The program often has a waiting list.

## General Certificate Requirements

Additional requirements for graduation can be found on the Degree/ Certificate Requirements for Graduation page (p. 36).

Unless otherwise noted in individual program requirements, a minimum grade point average of 2.00 in all work attempted at the University of Montana-Missoula is required for graduation. Please see the Academic Policies and Procedures page (p. 25) for information on how your GPA is calculated.

Courses taken to satisfy the requirements of a major, minor, or certificate program must be completed with a grade of C- or better unless a higher grade is noted in the program requirements.

## Certificate of Applied Science - Welding Technology

### Course Requirements

| Code                                          | Title                                 | Hours        |
|-----------------------------------------------|---------------------------------------|--------------|
| <b>Complete all of the following courses:</b> |                                       |              |
| BGEN 215                                      | Career Readiness                      | 3            |
| COMX 102                                      | Interpersonal Skills in the Workplace | 1            |
| M 105                                         | Contemporary Mathematics              | 3-4          |
| DDSN 113A                                     | Technical Drafting                    | 3            |
| MCH 114                                       | Related Metals Processes II           | 3            |
| OSH 110                                       | OSHA 10 Hour Safety Training          | 1            |
| WLDG 117                                      | Blueprint Reading & Welding Symbols   | 3            |
| WLDG 145                                      | Fabrication Basics                    | 4            |
| WLDG 180                                      | Shielded Metal Arc Welding            | 4            |
| WLDG 187                                      | Flux Core Arc Welding                 | 4            |
| WRIT 101                                      | College Writing I                     | 3            |
| <b>Total Hours</b>                            |                                       | <b>32-33</b> |

## One Year Plan

| Course             | Title                                     | Hours        |
|--------------------|-------------------------------------------|--------------|
| <b>First Year</b>  |                                           |              |
| <b>Autumn</b>      |                                           |              |
| COMX 102           | Interpersonal Skills in the Workplace     | 1            |
| DDSN 113A          | Technical Drafting <sup>1</sup>           | 3            |
| M 105              | Contemporary Mathematics                  | 3-4          |
| MCH 114            | Related Metals Processes II <sup>2</sup>  | 3            |
| WLDG 180           | Shielded Metal Arc Welding                | 4            |
| WRIT 101           | College Writing I                         | 3-4          |
| <b>Hours</b>       |                                           | <b>17-19</b> |
| <b>Spring</b>      |                                           |              |
| BGEN 215           | Career Readiness                          | 3            |
| OSH 110            | OSHA 10 Hour Safety Training <sup>3</sup> | 1            |
| WLDG 117           | Blueprint Reading & Welding Symbols       | 3            |
| WLDG 145           | Fabrication Basics                        | 4            |
| WLDG 187           | Flux Core Arc Welding <sup>3</sup>        | 4            |
| <b>Hours</b>       |                                           | <b>15</b>    |
| <b>Total Hours</b> |                                           | <b>32-34</b> |

<sup>1</sup> If additional credits are needed, DDSN 114 may be added this semester.

<sup>2</sup> weeks 1-7

<sup>3</sup> weeks 1-8

*Last Updated Fall 2025*

## Interdisciplinary Majors, Minors, and Certificates

- International Development Studies Minor (p. 427)
- Military Science (p. 428)

## International Development Studies Minor

### General Degree Requirements

To earn a baccalaureate degree, all students must complete successfully, in addition to any other requirements, the University of Montana General Education Requirements. Please refer to the General Education Requirements page (p. 39) for more information.

Additional requirements for graduation can be found on the Degree/Certificate Requirements for Graduation page (p. 36).

Unless otherwise noted in individual program requirements, a minimum grade point average of 2.00 in all work attempted at the University of Montana-Missoula is required for graduation. Please see the Academic Policies and Procedures page (p. 25) for information on how your GPA is calculated.

Courses taken to satisfy the requirements of a major, minor, or certificate program must be completed with a grade of C- or better unless a higher grade is noted in the program requirements.

## Minor - International Development Studies

- This minor requires a minimum GPA of 2.5.
- At least six credits must be upper-division credits.
- No more than 6 Core Course credits may be taken from the same discipline.

### Course Requirements

| Code                                         | Title                                                           | Hours |
|----------------------------------------------|-----------------------------------------------------------------|-------|
| <b>Core Courses</b>                          |                                                                 |       |
| Complete four of the following courses:      |                                                                 | 12    |
| ANTY 326E                                    | Indigenous Peoples & the Ethics of Development                  |       |
| BGEN 360                                     | International Business                                          |       |
| BGEN 445                                     | Sustainability Reporting                                        |       |
| COMX 204X                                    | International and Development Communication                     |       |
| ECNS 217                                     | Issues in Economic Development                                  |       |
| ECNS 433                                     | Economics of the Environment                                    |       |
| ECNS 450                                     | Economics of Global Development                                 |       |
| ENST 427                                     | Social Issues: The Mekong Delta                                 |       |
| ENST 480                                     | Food Justice and Sustainability                                 |       |
| ENST 487                                     | Globalization, Justice & Environment                            |       |
| GPHY 141S                                    | Geography of World Regions                                      |       |
| GPHY 338                                     | Mountains and Society                                           |       |
| HSTR 231H                                    | Modern Latin America                                            |       |
| HSTR 337                                     | The History of Capitalism in Latin America, 1492 to the Present |       |
| IDS 191                                      | Special Topics                                                  |       |
| NASX 260X                                    | Indigenous Community Development                                |       |
| NRSM 475                                     | Environment & International Development                         |       |
| PSCI 332                                     | Global Environmental Politics                                   |       |
| PSCI 377                                     | Global Health Issues                                            |       |
| PSCI 428                                     | Climate Policies: China & U.S.                                  |       |
| PSCI 431                                     | Politics of Global Migration                                    |       |
| PSCI 463                                     | Development Administration                                      |       |
| PSCI 482                                     | Politics of the World Economy                                   |       |
| PTRM 345X                                    | Sustaining Human Society & Natural Environment                  |       |
| PTRM 451                                     | Tourism & Sustainability                                        |       |
| S W 465                                      | Social Work Global Context                                      |       |
| <b>Content Courses</b>                       |                                                                 |       |
| Complete 6 credits of the following courses: |                                                                 | 6     |
| ANTY 220S                                    | Culture & Society                                               |       |
| ANTY 241H                                    | Central Asian Culture and Civilization                          |       |
| ANTY 330X                                    | Peoples and Cultures of World (Africa)                          |       |
| ANTY 427                                     | Anthropology of Gender                                          |       |
| BGEN 160S                                    | Issues in Sustainability                                        |       |
| BMGT 410                                     | Sustainable Business Practices                                  |       |
| COMX 415                                     | Intercultural Communication                                     |       |
| COMX 421                                     | Communication in Nonprofit Organizations                        |       |
| COMX 493                                     | Study Abroad/Tours (Hong Kong & China)                          |       |

|             |                                                          |    |
|-------------|----------------------------------------------------------|----|
| CCS 103X    | Introduction to Climate Change: Science & Society        |    |
| ECNS 101S   | Economic Way of Thinking                                 |    |
| ECNS 433    | Economics of the Environment                             |    |
| ECNS 445    | Introduction to Environmental Economics & Climate Change |    |
| ENSC 470    | Agroecology                                              |    |
| ENST 225S   | Sustainable Communities                                  |    |
| ENST 437    | Climate Change: Mekong Delta                             |    |
| ENST 480    | Food Justice and Sustainability                          |    |
| GEO 107N    | Natural Disasters                                        |    |
| GPHY 121S   | Human Geography                                          |    |
| GPHY 335    | Water and Sustainability                                 |    |
| GPHY 433    | Community Resilience                                     |    |
| HSTR 334    | Latin America: Reform & Revolution                       |    |
| HSTR 335    | Latin America: Workers & Labor                           |    |
| HSTR 435    | Latin American Human Rights & Memory                     |    |
| JRNL 105X   | Global Current Events                                    |    |
| NASX 475    | Tribal Sovereignty                                       |    |
| NRSM 326    | Climate and Society                                      |    |
| PHL 423     | Science and the Environment                              |    |
| PSCI 220S   | Intro to Comparative Government                          |    |
| PSCI 230X   | Intro to International Relations                         |    |
| PSCI 311    | Revolution & Reform in Modern China                      |    |
| PSCI 325    | Politics of Latin America                                |    |
| PSCI 326    | Politics of Africa                                       |    |
| PSCI 327    | Politics of Mexico                                       |    |
| PSCI 334    | International Security                                   |    |
| PSCI 337    | Model United Nations                                     |    |
| PSCI 433    | International Law & Organization                         |    |
| PSCI 443    | Politics of Social Movements                             |    |
| SSEA 202X   | Introduction to India                                    |    |
| Total Hours |                                                          | 18 |

## Military Science

LTC Ben Culver, Director

Army ROTC (Reserve Officers' Training Corps) offers college students the opportunity to serve as commissioned officers in the U.S. Army, the Army National Guard, or the U.S. Army Reserve upon graduation. ROTC enhances a student's education by providing unique leadership and management training along with practical leadership experience. Students develop many of the qualities basic to success while earning a college degree and an officer's commission at the same time.

## The Margin of Difference

Army ROTC cadets learn to be leaders and receive hands-on experience in managing physical, financial, and human resources. They develop self-confidence and superior decision-making skills. Employers value these leadership qualities and recognize the associated potential in ROTC graduates.

## Four Year Program

The four year Army ROTC program consists of two parts:

1. the Basic Course and
2. the Advanced Course.

### Basic Course

The basic course is normally taken during the first two years of college and may be taken without incurring any military obligation. This course covers such subjects as management principles, national defense, military history, and leadership development. Basic course classes include adventure training such as squad tactics and small arms marksmanship. Additional opportunities are also available to conduct small unit training exercises throughout Western Montana. In addition, a variety of outside social and professional enrichment activities are available. All necessary ROTC textbooks, uniforms, and other essential materials for the basic course are furnished to students at no cost. After completing the basic course, students who have demonstrated the potential to become officers and who have met the physical and scholastic standards are eligible to enroll in the Advanced Course. Compression of the Basic Course into two semesters may be arranged for those students who did not take military science courses during their Freshman year.

### Advanced Course

The Advanced Course is usually taken during the final two years of college. Instruction includes organization and management, tactics, ethics, critical thinking, creative problem solving and further leadership development. Uniforms and equipment in the Advanced Course are furnished to students at no cost. During the summer between their junior and senior years of college, Advanced Course cadets attend Cadet Summer Training (CST), a fully paid four week leadership practicum. LDAC gives cadets the chance to apply what they have learned in the classroom and introduces them to Army life while also receiving academic credit. Completion of the Advanced Course requires two years of study. Each cadet in the Advanced Course receives a subsistence allowance of up to \$4,500 for each year of attendance.

## Two Year Program

The two year program applies to incoming juniors and community college graduates, students at four year colleges who did not take ROTC during their first two years of school, and students entering a two year postgraduate course of study. To enter the two year program, students must attend a fully paid four week Leader's Training Course (LTC), normally held during the summer between their sophomore and junior years of college. At LTC, students learn to challenge themselves physically and mentally, and to build their confidence and leadership skills. After successfully completing LTC, students who meet all the necessary enrollment requirements may participate in the Advanced Course.

## Scholarships and Financial Assistance

Army ROTC scholarships are offered for four, three and two years and are awarded on a competitive basis. Each scholarship pays 100% of student's tuition and fees, \$1200 a year for textbooks and supplies, and a monthly stipend totaling up to \$4,500 per year while the scholarship is in effect. Four-year scholarships are awarded to students who will be entering college as freshmen. Two and three year scholarships are awarded to students already enrolled in college and to Army enlisted personnel on active duty. Additionally, students who attend LTC (see two year program) may compete for two year scholarships while at the course. Scholarship recipients can pursue degrees in any accredited four year program at the University of Montana. Students who receive scholarships are required

to attain undergraduate degrees in the fields in which their scholarships were awarded.

## Veterans

Veterans may apply their military experience as credit toward the ROTC Basic Course. If eligible, a veteran may enroll directly into the Advanced Course.

## Simultaneous Membership Program

This program allows students to be members of the Army National Guard or the Army Reserve and to enroll in Army ROTC at the same time. Students participating in the Simultaneous Membership Program receive up to \$4,000 per year in tuition assistance, \$4,500 per year in monthly stipends and an additional \$20,000 per year in other benefits. There are also scholarships available for students participating in the Simultaneous Membership Program that are interested in staying in the Army National Guard or the Army Reserve upon graduation that pay up to \$8,500 per year for living expenses and \$1,200 per year for textbooks, supplies and other equipment. These scholarships are in addition to many of the current benefits students receive as part of the Simultaneous Membership Program.

## Service Obligation

There is no military service obligation for basic course students, unless on scholarship. Advanced course and scholarship (contracted) students incur an obligation to serve in the active Army, Army Reserve or National Guard.

## Commission Requirements

In order to earn a commission as a Second Lieutenant in the United States Army, each student must:

1. Complete all required Military Science instruction while attending college as a full-time student, and obtain a baccalaureate or higher degree.
2. Complete a PMS approved US History course.
3. Meet medical and physical fitness standards.
4. Be a U.S. citizen.
5. Successfully complete Cadet Summer Training.
6. Be recommended by the Professor of Military Science.

## Minors

- Military Studies Minor (p. 429)

## Military Studies Minor

## General Degree Requirements

To earn a baccalaureate degree, all students must complete successfully, in addition to any other requirements, the University of Montana General Education Requirements. Please refer to the General Education Requirements page (p. 39) for more information.

Additional requirements for graduation can be found on the Degree/Certificate Requirements for Graduation page (p. 36).

Unless otherwise noted in individual program requirements, a minimum grade point average of 2.00 in all work attempted at the University of Montana-Missoula is required for graduation. Please see the Academic

Policies and Procedures page (p. 25) for information on how your GPA is calculated.

Courses taken to satisfy the requirements of a major, minor, or certificate program must be completed with a grade of C- or better unless a higher grade is noted in the program requirements.

## Minor - Military Studies

- A total of 24 credits of MSL (Military Science Leadership) courses are allowed toward a baccalaureate degree for contracted students.
- A total of 12 credits are allowed toward a baccalaureate degree for non-contracted students.
- A minimum grade of C or better in all courses used toward the minor and a cumulative GPA of 2.5 for Military Science courses is required.
- The department may waive basic course requirements in the following situations:
  - prior military service,
  - Advanced Individual Training (AIT),
  - Leader's Training Course (LTC) or
  - Accelerated Cadet Commissioning Training (ACCT).

## Course Requirements

| Code                                         | Title                                   | Hours     |
|----------------------------------------------|-----------------------------------------|-----------|
| <b>Lower-Division Core Courses</b>           |                                         |           |
| Complete all of the following courses:       |                                         |           |
| MSL 101                                      | Leadership and Personal Development     | 3         |
| MSL 102                                      | Intro to Tactical Leadership            | 3         |
| MSL 201                                      | Innovative Team Leadership              | 3         |
| MSL 202                                      | Found of Tactical Leadership            | 3         |
| <b>Upper-Division Core Courses</b>           |                                         |           |
| Complete all of the following courses:       |                                         |           |
| MSL 301                                      | Adaptive Team Leadership                | 3         |
| MSL 302                                      | Applied Team Leadership                 | 3         |
| MSL 401                                      | The Army Officer                        | 3         |
| MSL 402                                      | Leadership in a Complex World           | 3         |
| <b>War History Requirement</b>               |                                         |           |
| Complete one of the following courses:       |                                         | 3         |
| HSTA 316                                     | American Civil War Era                  |           |
| HSTA 333                                     | American Military History               |           |
| <b>History/Political Science Requirement</b> |                                         |           |
| Complete 3 credits of the following courses: |                                         | 3         |
| HSTR 304H                                    | Ancient Rome                            |           |
| HSTA 316                                     | American Civil War Era                  |           |
| HSTA 333                                     | American Military History               |           |
| HSTR 272E                                    | Terrorism: Violence in the Modern World |           |
| Compete 3 credits of the following courses:  |                                         | 3         |
| PSCI 230X                                    | Intro to International Relations        |           |
| PSCI 335                                     | American Foreign Policy                 |           |
| <b>Total Hours</b>                           |                                         | <b>33</b> |

## Alexander Blewett III School of Law

Elaine Gagliardi, Dean

The Law School is accredited by the American Bar Association and the Association of American Law Schools, and offers the degree of Juris Doctor (J.D.) as well as undergraduate certificates and a minor. Prerequisites for admission to the Law School are a baccalaureate degree and Law School Admission Test.

For detailed information concerning the Law School's admission criteria, application procedures, facilities, and official course descriptions, consult the Law School Catalog, which may be obtained by calling (406) 243-6169 or visiting the Law School website (<http://www.umt.edu/law/>).

The Law School's administrative regulations are contained in the Law School Student Handbook, which is on the website. The Law School conforms in most instances to the calendar established for the entire University. There are some differences, however, because the Law School operates on a longer semester system than the rest of the University.

Access the Law School Academic Calendar on the Law School calendar web page (<http://www.umt.edu/law/academics/academic-calendar/default.php>).

## Department of Public Administration and Policy

The University of Montana's Department of Public Administration and Policy is the first of its kind in Montana. The mission of the department is to provide a cutting edge public sector education from high-quality faculty committed to applied research and teaching. The department offers a variety of degrees at the graduate and undergraduate level, and coursework is offered online and in-person. For more information, please see the department's program catalog pages and the department's website (<https://www.umt.edu/law/mpa/academics/default.php>).

### Programs

- Nonprofit Administration Minor (p. 430)
- Nonprofit Administration Certificate (p. 431)
- Public Policy Certificate (p. 431)

## Nonprofit Administration Minor

### General Degree Requirements

To earn a baccalaureate degree, all students must complete successfully, in addition to any other requirements, the University of Montana General Education Requirements. Please refer to the General Education Requirements page (p. 39) for more information.

Additional requirements for graduation can be found on the Degree/Certificate Requirements for Graduation page (p. 36).

Unless otherwise noted in individual program requirements, a minimum grade point average of 2.00 in all work attempted at the University of Montana-Missoula is required for graduation. Please see the Academic Policies and Procedures page (p. 25) for information on how your GPA is calculated.

Courses taken to satisfy the requirements of a major, minor, or certificate program must be completed with a grade of C- or better unless a higher grade is noted in the program requirements.

## Minor - Nonprofit Administration

- This minor requires a minimum GPA of 2.5

### Course Requirements

| Code                                                                                           | Title                                                              | Hours |
|------------------------------------------------------------------------------------------------|--------------------------------------------------------------------|-------|
| <b>Required Courses</b>                                                                        |                                                                    |       |
| Complete all of the following courses:                                                         |                                                                    |       |
| NPAD 166Y                                                                                      | Introduction to Public Service                                     | 3     |
| NPAD 367                                                                                       | Leadership and Nonprofits                                          | 3     |
| NPAD 466                                                                                       | Practical Applications in Nonprofit Administration                 | 3     |
| NPAD 467                                                                                       | Advanced Nonprofit Admin                                           | 3     |
| NPAD 498                                                                                       | Internship                                                         | 3     |
| <b>Electives</b>                                                                               |                                                                    |       |
| Complete 6 credits of the following courses. Take no more than one course per competency area. |                                                                    | 6     |
| <b>Communication Skills Competency</b>                                                         |                                                                    |       |
| BMGT 420                                                                                       | Leadership and Motivation                                          |       |
| COMX 115S                                                                                      | Introduction to Interpersonal Communication                        |       |
| COMX 210                                                                                       | Communication in Small Groups                                      |       |
| COMX 415                                                                                       | Intercultural Communication                                        |       |
| COMX 421                                                                                       | Communication in Nonprofit Organizations                           |       |
| COMX 422                                                                                       | Communication and Technology                                       |       |
| COMX 423                                                                                       | Organizational Communication Consulting and Training               |       |
| COMX 424                                                                                       | Risk, Crisis, and Communication                                    |       |
| S W 310                                                                                        | S W Policy & Services                                              |       |
| WGSS 263S                                                                                      | Social and Political Perspectives on Gender and Sexuality          |       |
| <b>Youth and Adult Development Competency</b>                                                  |                                                                    |       |
| EDEC 410                                                                                       | Families, Communities, Culture                                     |       |
| PSYX 230                                                                                       | Developmental Psychology                                           |       |
| PSYX 233                                                                                       | Fundamentals of Psychology of Aging                                |       |
| SOCI 335                                                                                       | Juvenile Justice System                                            |       |
| SOCI 443                                                                                       | Sociology of Poverty                                               |       |
| <b>Human Resources Development and Supervision Competency</b>                                  |                                                                    |       |
| COMX 220S                                                                                      | Introduction to Organizational Communication                       |       |
| HTH 465                                                                                        | Leading Integrative Physiology and Athletic Training Organizations |       |
| NRSM 422                                                                                       | Natural Resources Policy                                           |       |
| PTRM 380                                                                                       | Recreation Administration & Leadership                             |       |
| SOCI 306                                                                                       | Sociology of Work                                                  |       |
| <b>Nonprofit Program Planning Competency</b>                                                   |                                                                    |       |
| BGEN 160S                                                                                      | Issues in Sustainability                                           |       |
| ENST 225S                                                                                      | Sustainable Communities                                            |       |
| GBLD 194                                                                                       | Seminar                                                            |       |
| PTRM 310                                                                                       | Natural Resource Interpretation and Communication                  |       |
| PTRM 485                                                                                       | Recreation Planning                                                |       |
| <b>Nonprofit Marketing Competency</b>                                                          |                                                                    |       |



|                                                             |                                           |
|-------------------------------------------------------------|-------------------------------------------|
| BMKT 325                                                    | Principles of Marketing                   |
| BMKT 412                                                    | Nonprofit Marketing                       |
| <b>Nonprofit Accounting/Financial Management Competency</b> |                                           |
| ACTG 201                                                    | Principles of Financial Accounting        |
| BGEN 220E                                                   | Business Ethics and Social Responsibility |
| <b>Total Hours</b>                                          | <b>21</b>                                 |

## Nonprofit Administration Certificate

The Certificate in Nonprofit Administration will prepare students with fundamental skills and knowledge necessary for social impact careers in the nonprofit sector. The 12-credit undergraduate certificate will teach leadership, theory, and unique skill sets in public service and nonprofit administration including fundraising, strategic planning, community organizing, program evaluation, financial management, grant writing, leadership, public policy, theory of social change, etc. Students may enter the certificate program at any point during their undergraduate studies.

### General Certificate Requirements

Additional requirements for graduation can be found on the Degree/Certificate Requirements for Graduation page (p. 36).

Unless otherwise noted in individual program requirements, a minimum grade point average of 2.00 in all work attempted at the University of Montana-Missoula is required for graduation. Please see the Academic Policies and Procedures page (p. 25) for information on how your GPA is calculated.

Courses taken to satisfy the requirements of a major, minor, or certificate program must be completed with a grade of C- or better unless a higher grade is noted in the program requirements.

## Post-Secondary Certificate - Nonprofit Administration

### Course Requirements

| Code                                          | Title                                              | Hours     |
|-----------------------------------------------|----------------------------------------------------|-----------|
| <b>Complete all of the following courses:</b> |                                                    |           |
| NPAD 166Y                                     | Introduction to Public Service                     | 3         |
| NPAD 367                                      | Leadership and Nonprofits                          | 3         |
| NPAD 466                                      | Practical Applications in Nonprofit Administration | 3         |
| NPAD 467                                      | Advanced Nonprofit Admin                           | 3         |
| <b>Total Hours</b>                            |                                                    | <b>12</b> |

## Public Policy Certificate

The Certificate in Public Policy will prepare students with fundamental skills and knowledge necessary for social impact careers in the public sector. The 12-credit undergraduate certificate will teach leadership, theory, policy process, focused on solving public sector problems through data informed decision-making. Students may enter the certificate program at any point during their undergraduate studies. Some of program requirements below may count as either electives or requirements for other majors or minors, including the Minor in Nonprofit Administration.

## General Certificate Requirements

Additional requirements for graduation can be found on the Degree/Certificate Requirements for Graduation page (p. 36).

Unless otherwise noted in individual program requirements, a minimum grade point average of 2.00 in all work attempted at the University of Montana-Missoula is required for graduation. Please see the Academic Policies and Procedures page (p. 25) for information on how your GPA is calculated.

Courses taken to satisfy the requirements of a major, minor, or certificate program must be completed with a grade of C- or better unless a higher grade is noted in the program requirements.

### Online Program Option

This program may be completed in an online format (<https://catalog.umn.edu/online-programs/definitions/>). Students interested in pursuing an online degree or certificate program are strongly encouraged to contact the offering department to discuss specific program and course modalities (<https://catalog.umn.edu/online-programs/definitions/>) and create a plan of study with an academic advisor. The course requirements listed below may not be consistently offered via online delivery.

## Post-Secondary Certificate - Public Policy

### Course Requirements

| Code                                          | Title                                    | Hours     |
|-----------------------------------------------|------------------------------------------|-----------|
| <b>Complete all of the following courses:</b> |                                          |           |
| NPAD 166Y                                     | Introduction to Public Service           | 3         |
| NPAD 367                                      | Leadership and Nonprofits                | 3         |
| NPAD 368                                      | Policy Process and Implementation        | 3         |
| NPAD 465                                      | Solving Public Policy Problems with Data | 3         |
| <b>Total Hours</b>                            |                                          | <b>12</b> |

## Franke Global Leadership Initiative

The Franke Global Leadership Initiative (<https://www.umn.edu/gli/>) is a certificate program that encourages undergraduate students to lead, innovate and think entrepreneurially in order to propose solutions to some of society's greatest challenges. Each year, a cohort of students from disciplines across campus is selected to participate in this 4-year, 12-credit Certificate in Global Leadership.

Students in the Franke Global Leadership Certificate begin by exploring new and enduring global challenges through small, interdisciplinary seminars and through a survey course that delves into specific challenges within a set of five overarching global themes. After gaining an understanding of global challenges, participants experience different styles of leadership and begin to practice and develop leadership styles of their own.

During the final two years of the certificate, the program hones in on a specific theme and challenge chosen by each student. The world becomes the classroom in year three as students undertake experiential learning in both domestic and international settings. By year four, students are ready to bring their individual experiences together through a culminating capstone project with interdisciplinary teams. Each team

presents a problem and proposes an innovative solution formed from their out-of-classroom experiences and disciplinary knowledge.

- Global Leadership Certificate (p. 432)

# Global Leadership Certificate

## General Certificate Requirements

Additional requirements for graduation can be found on the Degree/Certificate Requirements for Graduation page (p. 36).

Unless otherwise noted in individual program requirements, a minimum grade point average of 2.00 in all work attempted at the University of Montana-Missoula is required for graduation. Please see the Academic Policies and Procedures page (p. 25) for information on how your GPA is calculated.

Courses taken to satisfy the requirements of a major, minor, or certificate program must be completed with a grade of C- or better unless a higher grade is noted in the program requirements.

## Post-Secondary Certificate - Global Leadership

### Course Requirements

| Code                                                                                                                                  | Title                            | Hours |
|---------------------------------------------------------------------------------------------------------------------------------------|----------------------------------|-------|
| Core Courses                                                                                                                          |                                  |       |
| Complete all of the following courses:                                                                                                |                                  |       |
| GBLD 110                                                                                                                              | Global Challenges and Leadership | 1     |
| GBLD 194                                                                                                                              | Seminar                          | 3     |
| GBLD 220                                                                                                                              | Models of Leadership             | 2     |
| Beyond the Classroom Experience                                                                                                       |                                  |       |
| Complete 3 upper-division credits of internship, research, study abroad, or service learning connected to the student's global theme. |                                  | 3     |
| Capstone                                                                                                                              |                                  |       |
| Complete the following courses:                                                                                                       |                                  |       |
| GBLD 499                                                                                                                              | GLI Capstone (taken in 2 parts)  | 3     |
| GLI Capstone Development - 2 credits, autumn                                                                                          |                                  |       |
| GLI Capstone Project - 1 Credit, spring                                                                                               |                                  |       |
| Total Hours                                                                                                                           |                                  | 12    |

# Davidson Honors College

Timothy Nichols, Dean

Set in the awesome natural beauty of western Montana, we are a vibrant, inclusive intellectual community providing transformative educational opportunities and dedicated to strengthening our positive impacts on the world.

## Vision

We engage diverse students through distinctive educational experiences that fuel their growth and empowerment, and position them for success. We are respected for our innovative, impactful approaches, individual and collaborative scholarship, integrity, and holistic student support. We lift one another up, and are a positive force in the lives of our students, our campus, our community, and the world.

## Values

- Education of the whole person
- Critical thinking, academic rigor and excellence
- Authentic collaboration and interdisciplinary approaches
- Experiential and place-based learning
- Curiosity, creativity, inquiry, innovation and discovery
- Dialogue, reflection and meaning making
- Grit, resilience and risk taking
- Intellectual confidence and humility
- Global and cross-cultural perspectives, diversity and equity
- Passion, compassion, integrity and justice
- Deep engagement and love of learning
- Sustainable practices and environmental stewardship

## Curriculum

### Learning Outcomes

We prepare thoughtful, informed, agile and impactful citizens. Our students are thinkers, doers, explorers, creators, servants, leaders, and agents of positive change. Through curricular and co-curricular experiences, they are equipped with new ways of knowing, seeing, doing and being in the world.

Through their experience in the DHC, they build capacity for:

- Collection, analysis, and synthesis of information;
- Excellence in oral, written, interpersonal and digital communication;
- Independent and collaborative work, problem solving and community engagement;
- Learning and reflection about their own and others' experiences;
- Ethical, original, creative, and critical thought and action;
- A meaningful life and future personal and professional success.

## Requirements

Students should work closely with their honors and departmental advisors and faculty mentors to develop and implement an honors experience that meets their academic and professional aspirations.

To graduate with University Scholar distinction, students complete the following requirements:

| Code                                                                                                                                                                                                                                                 | Title                        | Hours |
|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|------------------------------|-------|
| Complete all of the following:                                                                                                                                                                                                                       |                              |       |
| HONR 120                                                                                                                                                                                                                                             | Introduction to Honors       | 1     |
| HONR 121L                                                                                                                                                                                                                                            | Ways of Knowing              | 3     |
| HONR 394                                                                                                                                                                                                                                             | Interdisciplinary Colloquium | 3     |
| Experiential Learning. This may include internships, field courses, supervised research, student teaching, or study abroad. Students should consult with their honors advisor to identify courses and experiences that may fulfill this requirement. |                              | 2     |
| Three additional Honors Electives                                                                                                                                                                                                                    |                              | 7-9   |
| This could include:                                                                                                                                                                                                                                  |                              |       |
| Departmental honors courses                                                                                                                                                                                                                          |                              |       |
| Experiential courses                                                                                                                                                                                                                                 |                              |       |
| Other HONR courses                                                                                                                                                                                                                                   |                              |       |

Honors Capstone. The honors capstone project is an original piece of scholarly or creative work completed under the direction of a faculty mentor and relevant to the student's interests and goals.

3-4

**Total Hours****19-22**

## Graduating as a University Scholar

Students wishing to graduate with the University Scholar distinction must complete the curricular requirements outlined above at a 3.0 cumulative grade point average. Students complete a DHC application for graduation in addition to their UM graduation application. University Scholars are awarded the Davidson Honors College Medallion, which is presented at a special ceremony prior to University Commencement, and the University Scholar distinction is noted on student diplomas.

## Admission to the Davidson Honors College

Incoming students should apply to the Davidson Honors College as a supplement to their University of Montana application. This application receives a holistic review of materials including transcripts, short-answer responses, essays, letters of recommendation, and optional test scores. Incoming students who apply by December 1 will be considered for Davidson Honors College Scholarships.

Current University of Montana students who wish to enroll as a student in the Davidson Honors College complete a separate application available on the college's website.

## Advising

Students in the Davidson Honors College receive supplemental advising support from the DHC. All students are assigned an honors advisor who assists them with planning for and implementing their honors requirements alongside those of their academic major(s), minor(s), and certificates. Major and program specific advising is facilitated by the student's primary academic advisor. In addition, the DHC offers support for students in areas such as career development, undergraduate research, and the pursuit of externally-funded scholarships and fellowships.

## Opportunities for Involvement

The DHC is home to an active Honors Student Association, a team of honors Learning Assistants, DHC Ambassadors, the Honors Living and Learning Community, and a Dean's Student Advisory Council. Honors students are also involved across the university in student government, as athletes, artists, and performers, as servants of the community, and as leaders in a wide-range of departmental, college, and special interest organizations. The college hosts activities each year designed to build community, prepare students for their academic and professional aspirations, and to add value to and to elevate, enrich, and enliven their undergraduate experiences at UM.

For More Information, please see the Davidson Honors College website (<https://www.umt.edu/honors-college/>).

- Climate Change Studies Minor (p. 433)

## Climate Change Studies Minor

**Peter McDonough, Director**

Climate Change Studies is an inter-disciplinary program open to all majors. The program educates students in three areas of the climate change issue: science, society, and solutions. Coursework in the minor provides a foundation that enables students to engage the scientific, societal, and political dimensions of global climate change. Further, the focus on solutions with its orientation toward applied learning will help students develop critical thinking and problem solving skills. Participating students will enhance their major field of study. They will be better prepared to enter a broad range of professions and graduate programs where they can meet the emerging challenges and opportunities arising from climate change. Climate Change Studies is a joint program between the W.A Franke College of Forestry and Conservation, College of Arts and Sciences, and Missoula College's Energy Technology program.

## General Degree Requirements

To earn a baccalaureate degree, all students must complete successfully, in addition to any other requirements, the University of Montana General Education Requirements. Please refer to the General Education Requirements page (p. 39) for more information.

Additional requirements for graduation can be found on the Degree/Certificate Requirements for Graduation page (p. 36).

Unless otherwise noted in individual program requirements, a minimum grade point average of 2.00 in all work attempted at the University of Montana-Missoula is required for graduation. Please see the Academic Policies and Procedures page (p. 25) for information on how your GPA is calculated.

Courses taken to satisfy the requirements of a major, minor, or certificate program must be completed with a grade of C- or better unless a higher grade is noted in the program requirements.

## Minor - Climate Change Studies

- Special topics courses and experimental offerings may apply to requirements at the direction of the Climate Change Studies program director.

## Course Requirements

| Code                                         | Title                                                           | Hours |
|----------------------------------------------|-----------------------------------------------------------------|-------|
| <b>Required Course</b>                       |                                                                 |       |
| Complete the following course:               |                                                                 |       |
| CCS 103X                                     | Introduction to Climate Change: Science & Society               | 3     |
| <b>Climate Change Science</b>                |                                                                 |       |
| Complete 6 credits of the following courses: |                                                                 | 6     |
| ERTH 303N                                    | Weather and Climate                                             |       |
| GEO 318                                      | Earth's Changing Climate                                        |       |
| GEO 322                                      | Energy and the Environment                                      |       |
| GEO 488                                      | Snow, Ice and Climate Change                                    |       |
| GEO 568                                      | Climate Sensitivity and Feedbacks                               |       |
| GPHY 111N                                    | Intro to Physical Geography: Climate, Landforms, and Vegetation |       |
| GPHY 525                                     | Advanced Physical Geography                                     |       |
| NRSM 281                                     | Science of Climate Change                                       |       |

|                                                  |                                                        |           |
|--------------------------------------------------|--------------------------------------------------------|-----------|
| NRSM 408                                         | Natural Climate Solutions                              |           |
| NRSM 418                                         | Ecosystem Climatology                                  |           |
| <b>Climate Change and Society</b>                |                                                        |           |
| Complete 6 credits of the following courses:     |                                                        | 6         |
| BIOM 327                                         | Vector-Borne Diseases: Public Health Perspectives      |           |
| ECNS 433                                         | Economics of the Environment                           |           |
| ECNS 445                                         | International Environmental Economics & Climate Change |           |
| ENST 335L                                        | Literature of the Earth                                |           |
| ENST 427                                         | Social Issues: The Mekong Delta                        |           |
| ENST 480                                         | Food Justice and Sustainability                        |           |
| NRSM 326                                         | Climate and Society                                    |           |
| NRSM 349E                                        | Climate Change Ethics and Policy                       |           |
| NRSM 428                                         | Climate Policy                                         |           |
| PHL 112E                                         | Intro Ethics and Environment                           |           |
| PHL 323                                          | Ethics of Climate Change                               |           |
| PHL 415                                          | Issues in the Anthropocene                             |           |
| PSCI 428                                         | Climate Policies: China & U.S.                         |           |
| PUAD 503                                         | Policy Analysis                                        |           |
| <b>Climate Change Solutions - Category A</b>     |                                                        |           |
| Complete three credits of the following courses: |                                                        | 3         |
| CCS 391                                          | Special Topics                                         |           |
| CCS 395                                          | Climate Change Practicum                               |           |
| CCS 398                                          | Climate Change Internship and Service Learning         |           |
| ENST 437                                         | Climate Change: Mekong Delta                           |           |
| ENST 476                                         | Community Sustainability in Practice                   |           |
| ENST 495                                         | Field Work/Practicum (PEAS Farm)                       |           |
| NRSM 321                                         | Field Studies and Energy Systems in Montana            |           |
| <b>Climate Change Solutions - Category B</b>     |                                                        |           |
| Complete three credits of the following courses: |                                                        | 3         |
| BGEN 160S                                        | Issues in Sustainability                               |           |
| BGEN 445                                         | Sustainability Reporting                               |           |
| BMGT 410                                         | Sustainable Business Practices                         |           |
| CCS 391                                          | Special Topics                                         |           |
| ENST 225S                                        | Sustainable Communities                                |           |
| ENST 437                                         | Climate Change: Mekong Delta                           |           |
| GPY 421                                          | Sustainable Cities                                     |           |
| NRSM 321                                         | Field Studies and Energy Systems in Montana            |           |
| <b>Total Hours</b>                               |                                                        | <b>21</b> |

## Maureen & Mike Mansfield Center

The Maureen and Mike Mansfield Center (<https://www.umt.edu/mansfield/>) was established in 1986 to pay tribute to Maureen and Mike Mansfield and to recognize their important contributions to U.S. Asian relations and public policy. The Center is an academic unit within the University of Montana and receives core funding from an endowment managed by the Maureen and Mike Mansfield Foundation. Mansfield Center faculty offer classroom instruction, conduct research, provide training for Asian and U.S. government personnel, and organize various types of conferences, all with a focus on East Asia. The Center faculty

collaborate with the University's Asian studies programs and several other campus units.

The Mansfield Center's Ethics and Public Affairs Program (formerly known as the Center for Ethics) focuses upon the relationship of values to public institutions and affairs. Its courses, seminars, lectures, conferences, and internships examine the role that ethical values can and should play in public life, moral quandaries faced by those who govern philosophical and practical dimensions of political ethics, and issues of leadership and character in public service.

- Language, Regional Expertise, and Culture Certificate (p. 434)

## Language, Regional Expertise, and Culture Certificate

### General Certificate Requirements

Additional requirements for graduation can be found on the Degree/Certificate Requirements for Graduation page (p. 36).

Unless otherwise noted in individual program requirements, a minimum grade point average of 2.00 in all work attempted at the University of Montana-Missoula is required for graduation. Please see the Academic Policies and Procedures page (p. 25) for information on how your GPA is calculated.

Courses taken to satisfy the requirements of a major, minor, or certificate program must be completed with a grade of C- or better unless a higher grade is noted in the program requirements.

### Post-Secondary Certificate - Language, Regional Expertise, and Culture Course Requirements

- Other languages such as Thai, Ukrainian, and Portuguese are sometimes offered and may apply toward certificate requirements at the discretion of the program director.

| Code                                                   | Title                                        | Hours        |
|--------------------------------------------------------|----------------------------------------------|--------------|
| <b>Complete one of the following course sequences:</b> |                                              | <b>14-18</b> |
| <b>Modern Standard Arabic (18 credits required.)</b>   |                                              |              |
| MANS 105                                               | Elementary Modern Standard Arabic            |              |
| MANS 205                                               | Intermediate Modern Standard Arabic II (MSA) |              |
| <b>Levantine Arabic (18 credits required.)</b>         |                                              |              |
| MANS 104                                               | Elementary Levantine Arabic                  |              |
| MANS 204                                               | Intermediate Levantine Arabic II             |              |
| <b>Egyptian Arabic (18 credits required.)</b>          |                                              |              |
| MANS 112                                               | Elementary Egyptian Arabic                   |              |
| MANS 212                                               | Intermediate Egyptian Arabic                 |              |
| <b>Indonesian (14 credits required.)</b>               |                                              |              |
| MANS 106                                               | Elementary Indonesian                        |              |
| MANS 206                                               | Intermediate Indonesian Language and Culture |              |
| <b>Persian-Farsi (18 credits required.)</b>            |                                              |              |
| MANS 103                                               | Elementary Persian-Farsi                     |              |
| MANS 203                                               | Intermediate Persian-Farsi II                |              |
| <b>Chinese - Mandarin (18 credits required.)</b>       |                                              |              |

|                                       |                        |
|---------------------------------------|------------------------|
| MANS 108                              | Elementary Chinese I   |
| MANS 208                              | Intermediate Chinese I |
| <b>Korean (18 credits required.)</b>  |                        |
| MANS 107                              | Elementary Korean I    |
| MANS 207                              | Intermediate Korean I  |
| <b>Russian (18 credits required.)</b> |                        |
| MANS 109                              | Elementary Russian     |
| MANS 209                              | Intermediate Russian   |
| <b>French (14 credits required.)</b>  |                        |
| MANS 111                              | Elementary French      |
| MANS 211                              | Intermediate French    |
| <b>Spanish (14 credits required.)</b> |                        |
| MANS 110                              | Elementary Spanish     |
| MANS 210                              | Intermediate Spanish   |
| <hr/>                                 |                        |
| <b>Total Hours</b>                    |                        |
| <b>14-18</b>                          |                        |



# GRADUATE SCHOOL

Graduate education explores and advances knowledge boundaries and re-defines the state-of-the-art in every discipline. A master's degree will improve a person's expertise in their given field while a doctoral degree will promote original research that advances the current knowledge in the field.

The mission of the Graduate School is to improve and advance graduate education at the University of Montana. Our graduate programs train the next generation of scholars and enable the generation of new knowledge that will contribute to the scientific, economic and cultural needs of the state, the nation and the global community in the 21<sup>st</sup> century. The Graduate School carries out its mission through student advocacy, promotion of diversity and inclusivity, promotion of research, and development of dynamic, synergistic paths for education.

The Graduate School administers admission to masters and doctoral graduate programs at the University of Montana. Questions about specific programs should be directed to the appropriate college or school. The Skaggs School of Pharmacy (<http://health.umt.edu/pharmacy/>), the School of Physical Therapy and Rehabilitation Science (<http://health.umt.edu/physicaltherapy/>), and the School of Law (<http://www.umt.edu/law/>) administer the Professional Doctorates in Pharmacy, Physical Therapy, and Juris Doctor, respectively.

For admission and application information, please see the Graduate School website (<https://www.umt.edu/grad/>). For further questions, please call us at 406-243-2572 or via email at [grad.school@umontana.edu](mailto:grad.school@umontana.edu).

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# Graduate School Policies

## A. Admissions

Admission to the University of Montana Graduate School allows students to pursue advanced degrees and certificates. While the Graduate School sets minimum admission requirements, individual departments may have additional criteria. The goal is to admit applicants who show strong potential to succeed in and contribute to UM's graduate programs.

### A1.000 - Overview

Before applying to the University of Montana (UM), applicants should contact the relevant department for program-specific requirements and

deadlines. A complete list of graduate programs is available in Explore Programs (<https://www.umt.edu/grad/explore/programs/default.php>).

Applicants with a bachelor's degree from a regionally accredited institution may apply through the Graduate School's online (<https://www.umt.edu/grad/apply/applying-for-admission/default.php>) portal, paying a non-refundable application fee of \$70 for the first application and \$25 for additional applications within the same year. This excludes applications for undergraduate, post-baccalaureate, Law School, Pharmacy, and Physical Therapy programs. Graduates pursuing another degree or certificate must submit a new application and fee, which cannot be waived or refunded. As part of the application process, applicants may choose to provide a Social Security number to help differentiate between individuals with similar names. Declining to provide this number will not impact the application. However, federal law requires applicants to submit their Social Security number if applying for financial aid, graduate assistantships, fellowships, or tuition waivers for identification purposes.

The application fee remains valid for one year from the initial application term. Those not admitted may reapply to the same program within this period with the reduced fee (\$25) by submitting a new application. After one year, a new \$70 fee is required.

Falsifying, omitting, or suppressing information in the application may result in denial or dismissal from UM.

**A1.100** - Academic programs conduct the initial review of applications and submit a recommendation to the Graduate School for full, provisional, or denied admission.

**A1.200** - Admission is competitive. The faculty and the Graduate School weigh several factors in making admission decisions: undergraduate grades, test scores, the appropriateness of previous academic training, and the availability of space, facilities, faculty, and other resources.

**A1.300** - Admission requirements vary by academic program. To be considered for admission, applicants must submit all materials required by the specific program. At minimum, the Graduate School requires:

- An official transcript verifying a completed bachelor's degree.

Applicants to master's and doctoral programs must also provide:

- Letters of recommendation;
- A resume/CV, letter of intent, or equivalent.

**A1.400** - All credentials become the property of the University of Montana and will not be returned.

**A1.500** - Participation in or completion of a master's program does not guarantee eventual admission to a doctoral program.

**A1.600** - Incomplete applications may be carried forward for up to 12 months if no admission decision has been made. Once an official admission decision has been made on a complete application, the decision is final and the application cannot be modified. This also applies to incomplete applications that have been officially inactivated. Incomplete applications are officially inactivated after the 15th instructional day of the semester. To be considered, all requests to carry applications forward must be submitted before that deadline.

**A1.700** - With departmental approval, newly admitted students may defer their admission for up to 12 months.



## A2.000 - FULL ADMISSION

An academic program may recommend an applicant for full admission when the student meets both program and Graduate School requirements and has demonstrated strong potential for success in graduate study.

**A2.100** - The Graduate School requires a minimum cumulative undergraduate GPA of 3.0 for full admission. Applicants with a GPA below 3.0 may be considered for provisional admission upon recommendation by the academic program. Applicants with an undergraduate GPA below 3.0 who have completed a post-baccalaureate degree (e.g., master's degree) with a cumulative GPA of 3.0 or higher may qualify for full admission.

## A3.000 - PROVISIONAL ADMISSION

The academic program may recommend a student for provisional admission to the Graduate School for either a single term or an academic year. Provisional admission is given when the student might not be competitive in one or more admission criteria, but nevertheless shows promise. The provisional status provides a trial period wherein the student can demonstrate they can perform in the graduate program.

**A3.100** - The academic program may determine whether there are certain deficiencies or prerequisite courses that the student must take during the provisional period. Applicants with a cumulative GPA below 3.0 may be offered provisional admission. Such applicants must remain in provisional status until they meet the specific conditions set by the admitting program and approved by the Graduate School.

**A3.200** - The provisional status must be removed by the Graduate School on the recommendation of the academic program any time after the first term, but no later than the day before the beginning of the third term.

**A3.300** - Except for the assignment of teaching assistantships by some departments, provisional admission carries no restrictions regarding financial aid, credit loads, course selection, or other special limitations.

**A3.400** - International students can be admitted provisionally to a degree program if their English language skills do not meet full admission standards. Students admitted this way must be enrolled in the English Language Institute (ELI) until they are able to raise their English proficiency to meet full admission standards. Due to the intensity of ELI, students are not able to take classes within their major while enrolled in ELI. An international student's visa will be designated for ELI until they can demonstrate that their English proficiency meets full admission standards, at which point their visa will be updated to their admitted program.

## A4.000 - DENIED ADMISSION

Applicants may be denied admission based on factors such as academic performance, test scores, prior academic preparation, or the availability of space, faculty, and other resources. Denied applicants cannot be reconsidered for the same program and term.

## A5.000 - EQUAL OPPORTUNITY

The University of Montana is committed to a program of equal opportunity for education, employment and participation in university activities without regard to race, color, sex, age, religious creed, political ideas, marital or family status, physical or mental disability, national origin or ancestry, or sexual orientation.

## A6.000 - STUDENTS WITH DISABILITIES

The University is committed to providing accommodations that allow qualified individuals with disabilities the opportunity to study, work, and participate in its programs and activities. Applicants and students with disabilities will be provided with reasonable accommodations. Applicants and students who seek reasonable accommodations should begin the process by connecting with the Office of Disability Equity (ODE). University policy as well as federal and state law prohibits retaliation against anybody for exercising their right to request a reasonable accommodation.

## A7.000 - MANDATORY NEW STUDENT REQUIREMENTS

Once a student is admitted, holds are placed on their account to prevent registration until the required materials listed below are submitted.

**A7.100** - Upon admission, all students must provide an official transcript showing a conferred bachelor's degree to register for classes. Transcripts must be sent directly from the awarding institution or via an approved vendor (e.g., Parchment or National Student Clearinghouse), or, for international transcripts, through an approved evaluation service (see *A8.500*).

**A7.101** - If a bachelor's degree was awarded by UM, no transcript is necessary unless requested by the program, as the information is accessible internally.

**A7.102** - Transcripts showing in-progress coursework without a conferred degree do not meet requirements and will not lift the registration hold. Non-bachelor's degree transcripts are only required if requested by the department or for transfer credits.

**A7.200** - A self-report medical history, sent upon admission, must be submitted to the Curry Health Center before the 15<sup>th</sup> instructional day of the first semester of attendance. Students born after December 31, 1956 must submit a certificate of immunization against Rubella and measles (Rubeola). Not applicable to online-only students.

## A8.000 - ADMISSION FOR INTERNATIONAL STUDENTS

International students must be prepared to submit a completed application with a minimum of 120 days prior to the start of the intended term. Many departments request more time for the application review, particularly if the department indicates a priority deadline pertaining to funding. UM typically needs a minimum of 60 days from the time an offer is made to the start of the term to allow for the issuance of an I-20.

**A8.100** - Applicants whose native language is not English must submit an acceptable English language proficiency test score. The acceptable tests for admission, including provisional admission, are listed below.

- Applicants whose test scores meet the minimum may be fully admitted to a university graduate program, provided they meet that program's application standards.
  - Applicants should consult with individual programs to see if there are higher standards for English proficiency in their chosen program.
- Applicants with lower scores may be considered for provisional admission, provided they are academically eligible, and their score meets the minimum in the provisional column in the table below.
  - Graduate students provisionally admitted to the university must enroll in the English Language Institute (ELI) and then score sufficiently high on an English proficiency exam to gain full admission to the university.

Acceptable tests for graduate admission:

- **TOEFL IBT (Home Edition also accepted)**
  - Minimum score: 80
  - Minimum score for provisional admission: 71
- **TOEFL Essentials**
  - Minimum score: 9
  - Minimum score for provisional admission: 7.5
- **IELTS**
  - Minimum score: 6.5
  - Minimum score for provisional admission: 6.0
- **MET**
  - Minimum score: 58
  - Minimum score for provisional admission: 52
- **DET (Duolingo)**
  - Minimum score: 125
  - Minimum score for provisional admission: 120

**A8.200** - Applicants who are graduates of English-speaking universities are not required to take the TOEFL, IELTS, MET, or DET, however, if the English-speaking university is located outside of the United States or a country listed as exempt in *B8.300*, an official verification must be provided by the degree-awarding institution. This verification must confirm that the primary language of instruction for the degree was English.

**A8.300** - If you have received a high school, bachelor's, master's, or doctorate degree from an institution in the United States or a country listed below, an English proficiency examination is not required however proof of the programs language of instruction may be requested.

Countries Exempt from Providing Proof of English Proficiency:

- Anguilla
- Antigua & Barbuda
- Australia
- Bahamas
- Barbados
- Belize
- British Virgin Islands
- Canada (except Quebec)
- Cayman Islands
- Dominica
- Falkland Islands
- Ghana
- Gibraltar
- Grenada
- Guernsey
- Guyana
- Ireland
- Isle of Man
- Jamaica
- Jersey
- Liberia
- Montserrat
- New Zealand
- Nigeria

- St. Kitts & Nevis
- St. Lucia
- St. Vincent & the Grenadines
- Trinidad & Tobago
- Turks & Caicos Islands
- United Kingdom
- United States Territories

**A8.400** - Before issuing a visa form, the Graduate School must receive a certified financial statement ([https://www.umt.edu/grad/docs/forms/graduate\\_certificate-of-financial-responsibility\\_blank.pdf](https://www.umt.edu/grad/docs/forms/graduate_certificate-of-financial-responsibility_blank.pdf)) from a bank or sponsoring agency.

**A8.500** - International transcripts must be evaluated to U.S. standards. Graduate School requires official credential evaluation report submitted to UM through an active member of the National Association of Credential Evaluation Services (NACES) (<https://naces.org/members/>). Evaluations must at a minimum include Credentials, US Equivalency, Grade Average (GPA), and English Translation. If any courses will be transferred in for graduate credit, a course-by-course evaluation must be selected.

## **A9.000 - ENROLLMENT IN GRADUATE COURSES FOR SENIOR AND POST-BACCALAUREATE SENIORS**

Post-baccalaureates and seniors holding a 3.0 (or greater) grade point average may, with consent of instructor, enroll in 500-level courses for undergraduate credit. Variance from these requirements cannot be petitioned, except in the cases of approved Accelerated Master's Degrees (*see Policy C5.000*).

## **A10.000 - EARLY ADMISSION**

Undergraduates of the University of Montana requiring six (6) or fewer credits to complete the bachelor's degree may be admitted provisionally to the Graduate School, completing the bachelor's degree within one semester. Undergraduate credits taken in this status will be charged at the graduate rate. This policy does not apply to those students in one of the approved programs listed in *C4.000*.

During the semester as an early admitted graduate student, the student will not be eligible for financial aid.

## **A11.000 - GRADUATE NON-DEGREE STATUS**

If a student is not seeking a graduate degree or has not been accepted to the Graduate School, they may enroll as a Graduate Non-degree (GND) student on a space-available basis.

**A11.100** - To apply, see instructions (<https://www.umt.edu/grad/apply/grad-non-degree.php>) on the Admissions section of the Graduate School web site.

**A11.200** - Up to a total of nine (9) semester graduate non-degree credits may apply toward a subsequent graduate degree program, with the approval of the students program director and the Graduate School.

**A11.300** - Acceptance as a Graduate Non-degree student does not imply future admission to a degree program.

**A11.400** - Students do not earn graduate credit in a post-baccalaureate status.

**A11.500** - A student may not be admitted to both non-degree and degree status within a single semester. Students enrolled in a non-degree status

at the time of acceptance into a degree program will be admitted to the degree program for the following semester.

## **A12.000 - VISITING GRADUATE STUDENT**

Visiting Graduate Student status is offered for one year to students admitted to graduate study elsewhere. A statement of graduate status from the Graduate School is required. Credits earned under visiting status are considered graduate non-degree credits.

## **A13.000 - COUNCIL OF GRADUATE SCHOOLS RESOLUTION REGARDING SCHOLARS, FELLOWS, TRAINEES AND ASSISTANTS**

Students are under no obligation to respond to offers of financial support prior to April 15. In those instances in which a student accepts an offer before April 15, and subsequently desires to withdraw that acceptance, the student may submit in writing a resignation of the appointment at any time through April 15. However, an acceptance given or left in force after April 15 commits the student not to accept another offer without first obtaining a written release from the institution to which a commitment has been made. Similarly, an offer by an institution after April 15 is conditional on presentation by the student of the written release from any previously accepted offer.

## **A14.000 - WESTERN REGION GRADUATE PROGRAM (WRGP)**

Select graduate programs can apply for participation in WRGP, which allows programs to recruit non-resident students from WICHE states to attend at a reduced tuition rate. If a student is awarded WRGP, they will pay 150% of resident tuition.

# **B. Degree Standards**

## **B1.000 - DEFINING DEGREE STANDARDS**

The University of Montana bestows substantial freedom on departments and colleges to define their own degree structures; current information about particular programs may best be obtained by contacting the chair or dean of the program directly. University regulations, curricula, and fee schedules are subject to change without notice, and students in degree programs are responsible for meeting degree requirements and procedural deadlines.

## **B2.000 - GRADES**

Students must maintain a B average in courses taken for graduate credit at the University of Montana; no grade below C will be accepted toward any degree requirement. The student is automatically on academic probation if the cumulative grade point average falls below 3.0.

The Graduate School may place limits on the time for the student to remediate the academic problem before being suspended (see policy *B8.000* for details).

In addition, a program may set a higher GPA minimum, passing grade thresholds (e.g., B-), and/or specify other academic performance measures for students to remain in good standing. Examples might include successful completion of specific core courses, demonstration of professional competencies, assembling a committee, or successfully being admitted to a research lab. Programs will communicate these standards clearly in their program handbooks. Failure to meet those standards may result in dismissal (see Policy *B8.000*).

**B2.100** - Credit grades are not included in grade point calculations, but may apply toward degree requirements when earned in courses offered only on a Credit/No Credit basis.

**B2.200** - Only N (Continuation/In Progress), NCR (No Credit Received) and CR (Credit) grades are awarded for research, thesis/professional paper and dissertation work. The grades of CR and NCR are not defined in terms of their relationship to traditional grades for graduate courses, but rather if the student completed the required work or not. Grades of I (Incomplete) not removed within one year of grade assignment revert to the alternate grade, usually F, or a grade assigned by the instructor when the incomplete is submitted. All "I" (Incomplete), "N" (Continuation/In Progress), and "MG" (Missing Grade) grades must be resolved and replaced with a final grade no later than the term in which the student intends to graduate.

**B2.300** - Courses at the 400-level listed in the UM Catalog may not be challenged for graduate credit. At the time of their creation, 400-level courses are designated as either undergraduate-only or eligible for both undergraduate and graduate credit.

**B2.400** - In undergraduate or graduate designated 400-level courses, graduate students will be evaluated in a manner different from that of undergraduate students, and will complete an additional increment of graduate-level work as assigned by the instructor. 300-level courses and below may not be applied toward a graduate certificate, master's or doctoral degree.

## **B3.000 - TRANSFER CREDITS**

All transfer courses must have been taken for graduate credit. This information is verified by the Graduate School when the student submits an official transcript of the transfer coursework after a semester in residence.

**B3.100** - Graduate transfer credits are added to a student's record only if the student is in a graduate degree program and if the credit is applicable to the degree being sought. The following credits cannot be transferred to UM:

- Credits on an undergraduate transcript (undergraduate status) or post-baccalaureate status.
- Courses with a grade below a "B".
- Courses with a grade of pass, credit/no credit, or satisfactory (non-traditional grades).
- Credits in thesis, or research.
- Credits awarded by academic institutions for life experience.
- Credits awarded by academic institutions for non-credit courses, workshops, and seminars as part of continuing education or professional development programs.
- Extension credits outside the Montana University System.
- Credits that have already been applied toward the completion of a graduate degree may not be reused to fulfill the requirements of an equivalent degree, except as specifically permitted under the provisions outlined in section *C4.000*.

**B3.200** - Master's students may transfer up to nine (9) graduate/graduate non-degree semester credits after a semester of satisfactory coursework at UM.

**B3.201** - Up to 30 semester graduate or graduate non-degree credits may be transferred to the MFA degree in Fine Arts, and up to 16

semester graduate or graduate non-degree credits to the MFA degree in Creative Writing.

**B3.202** - Up to 30 graduate-level social work semester credits from a Council on Social Work Education (CSWE) accredited school of social work to count toward the MSW degree, subject to program approval and alignment with degree requirements.

**B3.300** - Doctoral students may transfer up to half (50%) of the total required semester credits for their doctoral program from prior graduate courses, subject to approval by the student's academic department and the Graduate School.

## B4.000 - CONTINUOUS REGISTRATION

Graduate students in degree programs must register for credits each Fall and Spring Semester.

**B4.100** - To ensure that costs for services are covered for continuing graduate students, a **continuous registration requirement of three (3) credits per semester is mandatory**. The minimum of three (3) credit requirement applies to the term when a student sits for comprehensive exams or defends their thesis or dissertation as well as the term of graduation. The same requirement applies to certificate-seeking students.

At the department's request, post-defense periods may be allowed an exception. During this time, the student is permitted to complete final edits and revisions to their professional paper, thesis, or dissertation, provided all other requirements have been met. No registration is required for one semester. After one semester of no registration, one-credit registration is required for one semester; beyond one semester, three-credits continuous registration is required.

Application for exception to the three (3) credits of mandatory continuous registration policy should occur using the following procedures.

Exception request memoranda need not be lengthy but should include the specific request including the student's name and student identification number, the reason for the request, and any supporting documentation.

- All requests for exceptions should be submitted to the Graduate School before the first day of classes for the semester for which an exception is requested.
- Exceptions will be considered on a case by case basis, except for approved programmatic exceptions (ICD program in Resource Conservation, predoctoral internships for clinical and school psychology Ph.D. students (PSYX 588 or PSYX 638), Principal and Superintendent Leadership certificate, Nonprofit Administration certificate and Creative Pulse).

**B4.101** - The following conditions may qualify for reduced to 1-credit enrollment status:

- International assignment with a non-governmental organization, (Peace Corps, etc.) as a program requirement (program registration documentation). A memorandum from the major professor (advisor) or the department should be submitted to the Graduate School.
- Parental or major illness and extended family leave exception requests should be in the form of a memorandum from the major professor (advisor) to the Graduate School, and suitable documentation (from physician, psychologist, other medical professional, etc.) should be included as an attachment.

- Significant off-campus field assignment (domestic or foreign) exception requests for each student should be in the form of a memorandum to the Graduate School from the major professor (advisor) and endorsed by the department chair.

## B5.000 - LEAVE OF ABSENCE

The Graduate School allows up to a one-year leave of absence with no penalty subject to approval of the Graduate School (e.g., for parental, major illness, or personal need). The form for requesting a leave-of-absence is available on the Graduate School web site. Because a leave-of-absence presumes the student is off-campus and not engaged in university activities, no university resources (except those available to the general public) are available during the leave-of-absence.

## B6.000 - UNAPPROVED LEAVE OF ABSENCE

Graduate students who discontinue their studies without prior approval from both their academic program and the Graduate School, and who fail to maintain continuous enrollment, will be inactivated and removed from their program. To return, they must submit a petition for readmission to their program and the Graduate School.

## B7.000 - READMISSION

The request for readmission will require an evaluation from the department of the students' progress and a plan with time-table for completing the degree. Readmission of students is not guaranteed and is subject to the department's discretion. The decision to approve a student's return is made on a case-by-case basis. Students intending to return from an absence are expected to submit their request to the Graduate School prior to the start of the semester in which they plan to re-enroll. However, the request will be accepted no later than the 15th instructional day of the semester. Requests submitted after this deadline will not be considered, and the student's return must be delayed to a subsequent term.

## B8.000 - ACADEMIC PROBATION, SUSPENSION AND DISMISSAL

A student may be placed on probation for either of the following reasons:

- A failure to maintain an overall graduate GPA of 3.00, which will be automatic unless the program appeals to the Graduate School on the student's behalf to explain contingent circumstances.
- A failure to make reasonable academic progress or comply with the professional or ethical standards as defined by the program's graduate student handbook.

When a student is placed on Academic Probation, the Graduate School will notify both the student and the department. The department is responsible for informing the student of the specific benchmarks they must meet and the timeline for doing so in order to avoid Suspension and/or Dismissal.

A student can be suspended and/or dismissed from an academic program for any of the following reasons:

- Provisional admission conditions not met.
- Overall graduate or program GPA falls or remains below a 3.00 after being placed on University Probation status.
- Unsatisfactory progress in a degree program.
- Failure to comply with the professional or ethical standards as defined by that program's student handbook.



When a program determines that a student should be suspended or dismissed, they will notify the student and the Graduate School of their decision, with details in the student's record relevant to existing program policy along with a clear timeline for appeal. Suspensions or dismissals due to GPA as stipulated above cannot be appealed without the support of the academic program.

### Appeal of Program Decision

If a degree-seeking student wishes to appeal their suspension or dismissal, they must follow the steps in the following timeline:

1. **Notice of Appeal.** The student must notify the Graduate School of their intent to appeal within five (5) business days of receiving the suspension letter.
2. **Submission of Appeal.** The student has an additional ten (10) business days to provide a letter and any supporting documents to the Graduate School. The Appeal should provide specific evidence, context, or mitigating factors that directly address the program or Graduate School standards that were not met.
3. **Decision on Appeal.** The decision on an appeal resides with the Graduate School Dean or their designee. The Dean may reach out to the student or the program for additional information, if it deems such is necessary for its decision. The Dean may place requirements related to timeframes on responses to these requests. If additional information is received from the program, the student will be provided a copy. The submitted appeal can be accepted or denied, and the Graduate School will typically issue that decision within 10 days of submission, however, this timeframe may be longer if the Dean requires additional information from the student or faculty member.
4. **Plan of Action.** If the appeal is accepted, the student will be sent a Plan of Action from the Graduate School to be completed by their committee chair/graduate coordinator. The Plan of Action must enumerate the items to be completed for the student to return to good standing. As with other petitions to the Graduate School, the Plan of Action should be submitted to the Graduate School by graduate program faculty (chair/advisor/program director) confirming their approval of the steps to return to good standing.

If the appeal is not made within 10 days, or the appeal is denied, the student's graduate record will be made "Inactive".

To be re-admitted after a suspension, the student must receive the approval of the graduate program, who may choose not to re-admit.

The decision of the Graduate School is considered the final administrative act of the University.

Pursuant to BOR Policy 203.5.2 (<https://mus.edu/borpol/bor200/203-5-2.pdf>), this decision is appealable to OCHE.

### B9.000 - SUBMISSION AND PUBLICATION OF FINAL THESIS, PROFESSIONAL PAPER, OR DISSERTATION

Publication of master's theses, professional papers and doctoral dissertations is a requirement common to all degree-granting institutions. Publication increases the availability of research and creative efforts to the academic community and the public, enhancing the visibility of graduate research and facilitating future academic and professional opportunities for students. As a tax-funded public university, the University of Montana (UM) is committed to distributing scholarship produced under the auspices of the UM Graduate School through an open access model.

**B9.100** - All professional papers, theses, or dissertations must be submitted to the Mansfield Library in accordance with the Final Degree Requirements (<https://www.umt.edu/grad/current-students/graduation/final-degree-requirements.php>) established by the Graduate School. These works will be cataloged and made publicly available in an electronic format, unless otherwise specified in accordance with the restrictions outlined in this policy.

**B9.200** - The University of Montana claims no copyrights to any professional paper, thesis, or dissertation, or the research or creative scholarship contained therein.

**B9.300** - The University recognizes that some professional papers, theses, or dissertations may contain sensitive content, such as research data or culturally restricted information, or personal information, proprietary information, or content that could impact on the author's future opportunities for publication or commercialization.

**B9.301** - Students may request one of the following mechanisms to limit immediate access to their work:

- **Delayed Publication (Embargo):** Students may request a delay in the publication of their professional paper, thesis, or dissertation for up to five (5) years. Exceptions to the five (5) year limitation may be made in exceptional circumstances. During the embargo period, the full text will not be accessible, but the work's metadata (title, author, abstract, and keywords) will be listed in ScholarWorks and in the Mansfield Library catalog. Embargoes may be appropriate when a student plans to submit a manuscript based on their thesis or dissertation to a publisher or has received research funding from a commercial entity that has specifically requested an embargo on the release of the work in ScholarWorks or ProQuest. Embargoes may also be appropriate when a student is pursuing a patent on something derived from their thesis or dissertation research, or for other reasons.
- **Campus Access Restriction:** In addition to delayed publication (embargo), or alternatively, students may request that their work be made available only to individuals who can access the campus network via NetID (an authenticated connection). As with embargoes, citation and abstract information is visible to everyone. A campus access restriction is indefinite unless or until the student author requests removal of the restriction. This may be appropriate to protect sensitive information from being publicly accessible.
- **Suppression of Publication:** In exceptional cases, students may request an indefinite delay in publication of their thesis or dissertation. The thesis or dissertation must still be submitted in accordance with the Final Degree Requirements. The full text document will not be made publicly available in ScholarWorks although it will be retained by the Mansfield Library via ScholarWorks. As with embargoes and campus access restrictions, and consistent with the MUS Record Retention Schedule, citation and abstract information will remain visible to everyone. Such a request must be justified and approved by the Graduate School and the Mansfield Library and will only be permissible in cases involving highly sensitive or proprietary information. Concerns that can be adequately managed with an embargo and/or a campus-access restriction will not be considered sufficient justification for suppression.

**B9.400** - The Graduate School shall review all requests for embargoes, restrictions, or suppression. The Graduate School shall consider the student's provided justification for requesting a limitation on publication in view of concerns for privacy or confidentiality and shall consider such elements as potential risks to the health or safety of the student as well as the potential for future publication, commercialization, or patent



protection. Requests must be made pursuant to the procedure laid out by the Graduate School.

**B9.500** - If the Graduate School denies a student's request for limitation, the student may appeal the decision to the Vice President for Research. Students must submit an appeal, in writing, to the Office of Research within thirty (30) days. Appeals must include all relevant information and documentation.

**B9.600** - For all limitations on publication, once the limitation period ends, the professional paper, thesis, or dissertation shall be immediately published in accordance with the Graduate School's publication procedure (<https://www.umd.edu/grad/current-students/graduation/final-degree-requirements.php>).

## C. Master's Degree

### C1.000 - CREDIT REQUIREMENTS

Each program defines its own credit requirements and its own standards of quality and achievement. At least two years of graduate study are normally necessary for the master's degree. The following statements describe the Graduate Schools' minimum quantitative requirements for the master's degree.

**C1.100** - At least 30 semester graduate credits will be presented for the thesis or professional paper option, or at least 36 semester graduate credits for the nonthesis option.

**C1.200** - At least 20 semester credits, including those earned for the thesis or professional paper, will be in the major discipline.

**C1.300** - At least half the credits required for the degree (excluding a combined total of 10 semester credits for thesis and research) will be at the 500 or 600 level. To apply this rule to the course of study, subtract the number of thesis and research credits completed (up to 10 semester credits only) from the minimum number of credits required for the degree.

All courses used to meet graduation requirements must be at the graduate level.

**C1.400** - As of Fall Semester 2011, 300 UG (Undergraduate/Graduate) courses will not count toward graduate degrees.

### C2.000 - TIME LIMITS

All degree requirements for the master's degree, including the use of transfer and non-degree credits, must be completed within five (5) years; six (6) years for students in the College of Education. Courses that fall outside this time limit must be recertified for currency of knowledge.

### C3.000 - SECOND MASTER'S DEGREE

For the purposes of this policy dual and joint degrees are defined as follows:

A joint degree is a combined degree that allows students to obtain a single degree with a specialization in two related fields. A joint degree requires OCHE/BOR approval, and students that complete a joint degree will have this single joint degree listed on their transcript rather than two separate degrees. Note that this pathway should only be pursued if the joint degree is nationally recognized with a corresponding Classification of Instructional Programs (CIP) code.

A dual degree allows students to follow specified pathways in two different fields and concurrently receive two separate degrees. A dual degree requires that students complete the standards specified for each program separately, and students that complete a dual degree will

have both degrees listed on their transcript. On the recommendation of both graduate programs, students working towards a dual master's may apply up to nine (9) credits to both degrees. Programs should apply professional, curricular, and accreditation standards when granting transfer credits so as to guarantee the integrity of their programs.

Formal program modification is required for exceptions to this policy. Such program modification requests should include clear rationales for how shared credits maintain each program's curricular and degree standards as well as adherence to accreditation standards, where applicable.

Current exceptions are listed here:

- For the MFA in Creative Writing, 24 semester credits from an MA in English may be applied.
- For the MFA in Fine Arts, 24 semester credits from an MA in Fine Arts may be applied.
- For the MS in Pharmaceutical Sciences and Drug Design program, 14 credits of coursework in the PharmD program can be transferred if the student took the credits in graduate status to fulfill PharmD requirements.

### C4.000 - ACCELERATED MASTER'S DEGREES

Select programs can apply to the Graduate Council for designation as an Accelerated Master's Degree, which provides their students an exemption from the rule prohibiting undergraduate credits to transfer to a Master's degree.

The complete list of approved programs approved for this exemption is as follows:

- Master of Athletic Training
- Master of Arts in Economics
- Master of Arts in Environmental Science and Natural Resource Journalism
- Master of Arts in Linguistics
- Master of Science Neuroscience
- Master of Arts in Environmental Philosophy
- Master of Arts in Political Science
- Master of Science in Pharmaceutical Sciences and Drug Design with PharmD
- Master of Public Administration with Wildlife Biology
- Master of Public Health
- Master of Public Health; Community Health and Prevention Science Concentration

After approval by the Graduate Council, Faculty Senate, and the Board of Regents, these programs are authorized to admit select students into graduate-level coursework in their fourth year or when they have completed a minimum of 105 undergraduate credits and demonstrated their capacity to pursue graduate-level coursework successfully.

These programs must ask for a specific maximum of allowable credits (no more than 9 except in specific circumstances) to transfer from the undergraduate to the graduate degree. All credits transferred are subject to the policy on transfer credits, with particular attention to the importance of students completing the "graduate increment" in 400-level courses designated UG, taken to fulfill a requirement for a master's degree.

Students in these programs will not be formally admitted to the Graduate School until their undergraduate degree is complete, at which time the restricted credits will be transferred and the students will change officially to "Graduate Status."

## **C5.000 - THESIS/PROFESSIONAL PAPER EXAMINING COMMITTEE**

Each master's degree program must include a specific component of research or creative work and a comprehensive evaluation over the content of the discipline. In programs requiring a thesis or professional paper, these requirements are typically combined and overseen by the thesis/professional paper examining committee.

### **C5.100 - Examining Committee Composition**

The thesis/professional paper examining committee shall be comprised of a minimum of three (3) voting members as follows:

1. A qualified UM faculty member or adjunct from the program or unit granting the degree who shall serve as chair;
2. A second (2<sup>nd</sup>) qualified UM faculty member or adjunct from the program or unit granting the degree, in the case of interdisciplinary degree programs the second member may be from a cooperating program or unit;
3. A third (3<sup>rd</sup>) qualified UM faculty member or adjunct from a program or unit other than the one granting the degree, who shall serve as the Fair Practices Representative. The primary responsibility of the Fair Practices Representative is to ensure that the student is held to reasonable academic standards, is treated fairly by all committee members, and that the student's academic progress is not unduly delayed by a failure of committee members to act in a timely manner.

Upon the recommendation of the unit, one additional voting member who is a faculty affiliate, a faculty member of another institution, or a non-academic expert may be appointed by the Graduate School, if the individual is uniquely qualified by training, experience, and/or degrees held to guide and evaluate the thesis or professional paper.

*Nota Bene: the Graduate School does not consider a non-UM employee to be an adequate substitute for member 3. Many non-UM faculty members serve as optional 4<sup>th</sup> members, but academic units need to select member 3 from faculty who are from a different tenure home than the graduate committee chair (member 1).*

### **C5.200 - Appointment of Examining Committee Members**

Prospective committee members shall be chosen by the student in consultation with the student's academic advisor, and the program director or department chair shall forward the nominations to the Graduate School for approval. Changes to the committee may be made at the request of the academic unit. However, changes should not be made solely to address short-term scheduling conflicts.

### **C5.300 - Timeline for Examining Committee Composition**

The committee composition must be submitted to the Graduate School by the end of the student's second (2<sup>nd</sup>) term of graduate attendance.

### **C5.400 - Qualifications of Faculty Advisor and Committee Members**

A graduate student's advisor must hold a degree equal to or higher than the degree the student is working toward.

**C5.401** - All members of a master's thesis or professional paper committee are generally expected to hold a graduate degree in a relevant field. The committee chair must hold a master's or doctoral degree, as appropriate to the program. Other members without a graduate degree may serve if they demonstrate relevant expertise and receive approval by the Graduate School.

**C5.402** - For UM faculty, they must be involved in ongoing scholarship, creative works, or professional activities relating to their discipline and must continue to receive normal salary increases. At the conclusion of the faculty evaluation process, the Provost's Office will notify the Graduate School of any faculty member receiving a less-than-normal salary increase due to deficiencies in scholarship, creative works, or professional activities. Such faculty members will not be permitted to serve on any new graduate student committees. Additionally, if the faculty member is currently serving as a chair on an existing graduate committee, a co-chair must be appointed. Eligibility to serve on graduate committees will be reinstated only after a subsequent faculty evaluation results in a normal or better than normal salary increase.

## **C6.000 - THESIS/PROFESSIONAL PAPER DEFENSE**

The thesis is a monographic or creative exercise representing an original scholarly contribution to a discipline. While conventions vary among disciplines, the professional paper is generally associated with the application of scholarly knowledge to specific professional settings. Both thesis and professional papers exhibit such substance and quality as to warrant eventual publication or exhibition.

**C6.100** - The student must complete one or more examinations (written, oral or both) relating to both the thesis (or professional paper) and the content of the discipline.

**C6.200** - The defense will normally occur well in advance of the end of the academic semester so the proper paperwork may be completed for the degree award process; the defense must be held by the last day in the academic semester.

**C6.300** - Oral examinations are open to the public and guests may ask questions on recognition by the chair.

**C6.400** - For the student to pass, all committee members, voting privately, must judge the student's performance as satisfactory. In case of failure, one repeat examination is permitted.

For guidance in preparing your thesis or professional papers, please consult the Graduate School's Formatting Final Paper (<https://www.umt.edu/grad/current-students/graduation/formatting-final-paper.php>) page.

## **C7.000 - COMPREHENSIVE EVALUATION OVER CONTENT OF DISCIPLINE**

All master's degree students must pass a comprehensive evaluation. Examples of the comprehensive evaluation include but are not limited to a comprehensive oral or written exam, thesis/professional paper defense, portfolio assessment, or integrated project evaluation.

## **D. Doctoral Degree**

### **D1.000 - GENERAL REQUIREMENTS**

Completion of a doctoral degree requires fulfillment of advanced coursework, examinations, and original research (dissertation). This

section outlines the formal requirements and procedures governing the conferral of the degree.

## D2.000 - CREDIT REQUIREMENTS

Doctoral degree coursework is designed to provide students with advanced knowledge, research skills, and scholarly depth in their chosen field of study.

**D2.100** - At least 60 semester credits are required for the doctorate; some programs require more.

**D2.101** - At least half (50%) the credits required for the degree will be at the 500 or 600 level. All courses used to meet graduation requirements must be at the graduate level.

**D2.102** - As of Fall Semester 2011 300 UG (Undergraduate/ Graduate) courses will not count toward graduate degrees.

## D3.000 - TIME LIMITS

All degree requirements for the doctoral degree, including the use of transfer and non-degree credits, must be completed within seven (7) years; ten (10) years for Educational Leadership and Teaching & Learning programs. Courses that fall outside this time limit must be recertified for currency of knowledge.

## D4.000 - COMPLETE EXAMINATIONS

The student will complete examinations (written, oral, or both) covering the major discipline.

**D4.100** - The examining committee, formed by the program in consultation with the student, may be the same as the student's dissertation committee.

**D4.200** - Any interested faculty may attend the examination, as appropriate, and ask questions on recognition by the chair.

**D4.300** - The committee, voting privately, may pass the student with one negative vote.

**D4.400** - In case of failure, one repeat examination before the same committee is permitted.

## D5.000 - THE DISSERTATION

The dissertation is an original contribution to knowledge of such substance and literary quality as to warrant publication.

### D5.100 - Dissertation Committee Composition

The dissertation committee shall be comprised of a minimum of four (4) voting members as follows:

1. A qualified UM faculty member or adjunct from the program or unit granting the degree who shall serve as chair;
2. A second (2<sup>nd</sup>) qualified UM faculty member or adjunct from the program or unit granting the degree;
3. A third (3<sup>rd</sup>) qualified UM faculty member or adjunct from a program or unit other than the one granting the degree, who shall serve as the Fair Practices Representative. The primary responsibility of the Fair Practices Representative is to ensure that the student is held to reasonable academic standards, is treated fairly by all committee members, and that the student's academic progress is not unduly delayed by a failure of committee members to act in a timely manner.
4. A fourth (4<sup>th</sup>) member who may be either a UM faculty member or adjunct from the program or unit granting the degree (or cooperating

program or unit in the case of interdisciplinary degree programs), or a faculty affiliate, non-academic expert, or faculty of another institution of higher learning who has been certified by the Graduate School as uniquely qualified by training, experience, and/or degree held to guide and evaluate the dissertation.

*Nota Bene: the Graduate School does not consider a non-UM employee to be an adequate substitute for member three (3) on a PhD committee. Many non-UM faculty members serve as an optional 5<sup>th</sup> member, but academic units need to select member three (3) from faculty who are from a different tenure home than the graduate committee chair (member 1).*

### D5.200 - Appointment of Dissertation Committee Members

Prospective committee members shall be chosen by the student in consultation with their academic advisor and the program chair shall forward the nominations to the Graduate School for approval. Changes to the committee may be made at the request of the academic unit. However, changes should not be made solely to address short-term scheduling conflicts.

**D5.201** - The committee composition must be submitted to the Graduate School by the end of the student's fourth (4<sup>th</sup>) term of graduate attendance.

### D5.300 - Qualifications of Faculty Advisor and Committee Members

A graduate student's advisor must hold a degree equal to or higher than the degree the student is working toward.

**D5.301** - All members of a dissertation committee are generally expected to hold a doctoral degree (PhD). The committee chair must hold a PhD. Other members without a PhD may serve if they demonstrate relevant expertise and receive approval by the Graduate School.

**D5.302** - For UM faculty, they must be involved in ongoing scholarship, creative works, or professional activities relating to their discipline and must continue to receive normal salary increases. At the conclusion of the faculty evaluation process, the Provost's Office will notify the Graduate School of any faculty member receiving a less-than-normal salary increase due to deficiencies in scholarship, creative works, or professional activities. Such faculty members will not be permitted to serve on any new graduate student committees. Additionally, if the faculty member is currently serving as a chair on an existing graduate committee, a co-chair must be appointed. Eligibility to serve on graduate committees will be reinstated only after a subsequent faculty evaluation results in a normal or better than normal salary increase.

## D6.000 - DISSERTATION DEFENSE

A final examination dealing primarily with the dissertation and its relationship to the student's fields of study will be conducted by the dissertation committee.

**D6.100** - At least a week before the examination, the committee will meet briefly to determine if the dissertation is ready for defense.

**D6.101** - If there is one negative vote, the student's advisor and the Graduate School may elect to proceed.

**D6.102** - If there are two or more negative votes, the defense will be postponed.

**D6.200** - The examination is open to the public; anyone may ask questions on recognition by the chair. Only the committee, meeting privately, may vote.

**D6.201** - The student will pass if the dissertation is accepted (either as it stands or pending minor revisions) with only one negative vote.

**D6.202** - If there are two or more negative votes, the committee may schedule and conduct a second and final examination at least one month after the initial defense. During that time, the student will be asked to make whatever changes are necessary in the dissertation. Failure to pass the second (2<sup>nd</sup>) attempt successfully results in termination of graduate study and dismissal from the academic program. Candidates who are dismissed from the program due to failure to pass the defense are ineligible to reapply to the same degree program.

## E. Certificate Programs

Certificate programs governed by these policy guidelines are academic, credit-bearing programs that end with the awarding of a certificate rather than a graduate degree. Certificate programs established under these guidelines are designed for developing specialized skills and knowledge, as well as providing opportunities for graduate students to develop interdisciplinary knowledge and skills beyond the offerings in their Master's program. They often have a practical or applied orientation, intended to indicate to prospective employers that the certificate holder has completed a Faculty Senate approved course of study. The following statements describe the Graduate School's minimum quantitative requirements for a certificate program.

### E1.000 - CREDIT REQUIREMENTS

**E1.100** - Each certificate program shall require a minimum of 12 semester credits. 29 semester credits are the maximum credits for a graduate certificate without Board of Regents approval.

**E1.200** - A maximum of six (6) credits of the coursework may be 4xx-level, but must include the graduate increment. Certificates greater than 15 credits can utilize up to half (50%).

**E1.300** - Each graduate certificate shall have a common core of at least six (6) semester credits to ensure internal coherence.

**E1.400** - In addition to elective courses, certificate programs may designate other requirements such as licensure requirements or other professionally required certificates, internships, work projects, or attendance at professional meetings and symposia. These courses should comprise no more than three (3) credits for certificates requiring up to 15 credits and no more than 25% for certificates above 15 required credits.

**E1.500** - All courses for the certificate shall be completed with a minimum grade of B-. (This does not preclude programs from setting higher minimum requirements).

### E2.000 - TRANSFER CREDITS / CREDITS EARNED ON CAMPUS

Students can transfer credits taken at UM in non-degree status; see policy *A11.000* on Graduate Non-Degree Status. Students in graduate non-degree status are encouraged to apply for admission to a graduate certificate as soon as they know they are likely to complete it, but no later than after having completed nine (9) credits.

At least nine (9) semester credits must be earned on campus or from UM-delivered distance coursework. A combined total of three (3) credits of coursework can transfer into a graduate certificate from outside the institution.

All transfer credits must adhere to policy *B3.000* Transfer Credits.

A graduate certificate is not a degree so credits earned in the certificate may also count towards a degree granting program. The number of credits counted towards a graduate degree is under the discretion of the program.

### E3.000 - TIME LIMITS

All requirements for a certificate program, including the use of transfer and non-degree credits, must be completed within five (5) years; six (6) years for students in the College of Education. Courses that fall outside this time limit must be recertified for currency of knowledge.

## F. Teaching Graduate-Level Courses

### F1.000 - TEACHING REQUIREMENTS

**F1.100** - Instructors teaching graduate-level courses, including courses designated as either undergraduate/graduate (UG) or graduate (G), must possess the appropriate academic qualifications and subject matter expertise to ensure the quality and rigor of graduate education. The corresponding academic department is responsible for evaluating and confirming that instructors meet these standards before assigning them to teach graduate-level courses. This evaluation should consider academic credentials, professional experience, and expertise relevant to the course content.

**F1.200** - At the close of the faculty evaluation process, any faculty member receiving a less-than-normal salary increase due to deficiencies related to teaching shall lose their eligibility to teach graduate-level courses until the completion of the next review. This eligibility will be restored only after a subsequent faculty evaluation review that results in a normal or better than normal salary increase.

## G. Graduate Teaching and Research Assistant

Graduate Teaching and Research Assistants (TAs and RAs) play a vital role in advancing the academic and research missions of the university.

### Board of Regents Policy

Montana Board of Regents Policy 940.31 - Approved November, 2010

"Tuition levels will bear a relationship to the costs incurred by the campus in providing the education to the student. Tuition levels for resident students will bear a relation to the cost of education and the level of state support. Campuses have the flexibility to set non-resident tuition at 150% of resident tuition and set non-resident tuition for graduate research and teaching assistants at 100% of resident tuition."

### G1.000 - TA/RA ELIGIBILITY REQUIREMENTS

To ensure consistency, academic integrity, and appropriate financial support, the following criteria establish eligibility for graduate students to serve as Teaching or Research Assistants (TAs/RAs) at the University of Montana.

**G1.100** - Students who meet the following criteria:

- Must be on a TA or RA contract or demonstrate that duties are equivalent to a TA or RA.
- Receive the minimum base as determined by the Graduate School.
  - \$10,000 for Master's students for fall and spring semesters
  - \$16,000 for Doctoral students for fall and spring semesters



- \$5,000 for one semester for Master's students
- \$8,000 for one semester for Doctoral students
- GPA must be at least 3.0.
- Enrolled in a degree seeking graduate program.
- Enrolled in 6 or more credits.
  - Some departments may require more credits.
- Enrollment shall be verified after the third week of each semester.

## 62.000 - FUNDING REQUIREMENTS AND CONSIDERATIONS FOR GRADUATE SCHOOL FUNDED GRADUATE ASSISTANSHIPS

**Academic Year assistantship contracts cannot be divided into any amounts smaller than one-half.** Each graduate TA must receive a full tuition waiver, if available, and the full wage amount for the semester they are working on a contract.

The teaching assistantship tuition waiver does not waive any other fees charged by the University. The student will be responsible for fees each semester that cannot be waived, including health insurance.

## Nondiscrimination and Title IX

The University of Montana is committed to providing a learning and working environment that promotes respect, dignity, and equity for all individuals. In accordance with federal and state law, the University does not discriminate—and prohibits discrimination—on the basis of race, religion, color, national or ethnic origin, ancestry, creed, sex (including pregnancy, childbirth, lactation or related medical conditions), gender, (including gender identity, gender expression, and gender transition), sexual orientation, physical or mental disability (including having a history of a disability or being regarded as having a disability), marital or family status, genetic characteristics or information, age, veteran or military status, political ideas, or any other legally protected classification in its educational programs and activities, including admission and employment.

In accordance with Title IX of the Education Amendments of 1972 and its implementing regulations, the University of Montana does not discriminate on the basis of sex in any education program or activity that it operates. This requirement extends to admission and employment. Inquiries about the application of Title IX may be referred to the University's Title IX Coordinator.

The University of Montana has designated a Title IX Coordinator and Director of Equal Opportunity to coordinate its compliance with Title IX and other non-discrimination laws and policies. Their contact information is:

Title IX Coordinator and Director of Equal Opportunity  
Office of Conflict, Resolution, & Policy  
University Hall 004  
University of Montana  
Missoula, MT 59812  
Phone: (406) 243-5710  
Email: [conflict@umontana.edu](mailto:conflict@umontana.edu)

Website: [umt.edu/eo \(https://www.umt.edu/equal-opportunity-title-IX/default.php\)](https://www.umt.edu/equal-opportunity-title-IX/default.php)

Submit a report online ([https://cm.maxient.com/reportingform.php?UnivofMontana&layout\\_id=9](https://cm.maxient.com/reportingform.php?UnivofMontana&layout_id=9))

Individuals may also contact the U.S. Department of Education's Office for Civil Rights (OCR) with inquiries, questions, or complaints at:

Office for Civil Rights (OCR)  
U.S. Department of Education  
400 Maryland Avenue, SW  
Washington, D.C. 20202-1100  
Phone: 800-421-3481  
TDD: 800-877-8339  
Email: [OCR@ed.gov](mailto:OCR@ed.gov)  
Website: <https://www.ed.gov/ocr> (<https://www.ed.gov/ocr/>)

Any person may report discrimination, harassment (including sexual harassment), or retaliation—by using the contact information listed above, or by any other means that results in the Title IX Coordinator or the Office of Conflict, Resolution, & Policy receiving the report. Reports may be submitted at any time, including during non-business hours.

The University has adopted and published grievance procedures providing for the prompt and equitable resolution of student and employee complaints of discrimination, harassment, retaliation, and sexual harassment, including formal complaints under Title IX. Information about how to file a report or formal complaint, and how the University will respond, is available from the Office of Conflict Resolution and Policy on the Equal Opportunity and Title IX website (<https://www.umt.edu/equal-opportunity-title-IX/default.php>), including:

- Discrimination, Harassment, and Retaliation Policy and Procedures (<https://www.umt.edu/policies/browse/personnel/discrimination-harassment-and-retaliation/>)
- Sexual Harassment Policy and Procedures (<https://www.umt.edu/policies/browse/personnel/sexual-harassment/>) (anticipated issuance in August 2025)

This non-discrimination statement is prominently displayed on the University of Montana's website and included in relevant publications, including handbooks and catalogs distributed to students, employees, applicants, and unions or professional organizations holding collective bargaining or professional agreements with the University.

## STUDENTS WITH DISABILITIES

The University of Montana does not discriminate against qualified students with disabilities. If an applicant would like to discuss the availability of reasonable accommodations, or any other matter relating to their disability, please contact the Office for Disability Equity (<https://www.umt.edu/disability/>) (ODE).

## College of the Arts and Media Graduate Programs

- School of Journalism (p. 451)
  - Environmental Science and Natural Resource Journalism M.A. (p. 451)
  - Environmental Science and Natural Resource Journalism M.A. - Environmental Public Health Journalism (p. 452)
- School of Music (p. 452)
  - Master of Music (p. 452)
  - Master of Music Education (p. 453)
- School of Theatre and Dance (p. 454)



- Theatre (p. 454)
  - Theatre M.A. (p. 454)
  - Theatre M.F.A. (p. 454)
- School of Visual and Media Arts (p. 456)
  - Art M.A. (p. 456)
  - Art M.F.A. (p. 456)
  - Game Design and Interactive Media M.F.A. (p. 457)
  - Media Arts M.F.A. (p. 458)
  - Museum Studies Certificate (p. 458)
  - New West: Art and the Environment Graduate Certificate (p. 459)
- Integrated Arts and Education M.A. (p. 459)

## School of Journalism

- Environmental Science and Natural Resource Journalism M.A. (p. 451)
- Environmental Science and Natural Resource Journalism M.A. - Environmental Public Health Journalism (p. 452)

## Environmental Science and Natural Resource Journalism M.A.

### General Graduate Program Requirements

Graduate School policies and standards can be found on the Graduate School Policies page (p. 440).

The minimum GPA for any graduate program is 3.0. Individual programs may require more than a 3.0 to remain in good standing.

The minimum grade for a course to be accepted toward any master's or doctoral requirement is C. The minimum grade for a course to be accepted toward a certificate program is B-. Individual programs may require higher grades for specific courses.

## Master of Arts - Environmental Science and Natural Resource Journalism

- The Master of Arts in Environmental Science and Natural Resource Journalism requires 36 credit hours: 18 in journalism and 12 in natural resource issues and/or environmental science.
- There are two options for the remaining six credits. Students can either use them to work on a documentary-style professional project or opt to take two more Journalism courses in order to create a portfolio of work in multiple mediums.
  - The professional project option allows students to embark on an ambitious investigation or create a comprehensive public information project. Students typically produce the project in their final year at the university after completing the rest of the coursework. This allows them to travel outside Montana and abroad for research for one semester. They return to Montana to defend their project in front of their chosen faculty committee.
  - The portfolio option allows students to take additional journalism electives and produce a three-part portfolio that explores a common environmental or natural resource theme. The portfolio must include work presented in at least two different mediums, ranging from writing to photography, video, audio, multimedia,

maps and graphics. This track is designed for those wanting more experience with different journalistic media.

- Students are also required to successfully complete 12 credits of approved non-journalism courses relevant to the coverage of natural resource issues, environmental science, or environmental public health. Course registration is subject to availability, prerequisites, and instructor consent.

### Course Requirements

| Code                                                                                                                                                                               | Title                                                        | Hours     |
|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|--------------------------------------------------------------|-----------|
| <b>Core Courses</b>                                                                                                                                                                |                                                              |           |
| Complete all of the following courses:                                                                                                                                             |                                                              |           |
| JRNL 567                                                                                                                                                                           | Press/Broadcast Law                                          | 3         |
| JRNL 570                                                                                                                                                                           | Reporting                                                    | 3         |
| JRNL 575                                                                                                                                                                           | Story Lab                                                    | 3         |
| JRNL 594                                                                                                                                                                           | Seminar (Journalism and Society)                             | 3         |
| JRNL 698                                                                                                                                                                           | Externship                                                   | 3         |
| <b>Hard Science Requirement</b>                                                                                                                                                    |                                                              |           |
| Complete 3 credits of the following courses:                                                                                                                                       |                                                              | 3         |
| Any Biology course (BIOE, BIOB, BIOH, BIOM, BIOO, BIOS)                                                                                                                            |                                                              |           |
| Any Geoscience (GEO) course.                                                                                                                                                       |                                                              |           |
| ECNS 410                                                                                                                                                                           | Health Economics and Policy                                  |           |
| ECNS 433                                                                                                                                                                           | Economics of the Environment                                 |           |
| ECNS 445                                                                                                                                                                           | Introduction to Environmental Economics & Climate Change     |           |
| ECNS 450                                                                                                                                                                           | Economics of Global Development                              |           |
| ENSC 470                                                                                                                                                                           | Agroecology                                                  |           |
| MBA 655                                                                                                                                                                            | Technology Seminar (Telling Stories with Data)               |           |
| NRSM 418                                                                                                                                                                           | Ecosystem Climatology                                        |           |
| NRSM 500                                                                                                                                                                           | Conservation and Social Science Methods                      |           |
| PUBH 510                                                                                                                                                                           | Intro to Epidemiology                                        |           |
| PUBH 520                                                                                                                                                                           | Fundamentals of Biostatistics                                |           |
| PUBH 612                                                                                                                                                                           | Neuroepidemiology                                            |           |
| PUBH 613                                                                                                                                                                           | Spatial Epidemiology in Geographic Information Systems (GIS) |           |
| PUBH 614                                                                                                                                                                           | Environmental and Occupational Epidemiology                  |           |
| PUBH 615                                                                                                                                                                           | Infectious Disease Epidemiology and Control                  |           |
| PUBH 620                                                                                                                                                                           | Advanced Quantitative Methods in Public Health I             |           |
| <b>Journalism Elective</b>                                                                                                                                                         |                                                              |           |
| Complete one 3-credit graduate-level Journalism course.                                                                                                                            |                                                              | 3         |
| <b>Non-journalism Electives</b>                                                                                                                                                    |                                                              |           |
| Complete 9 credits of approved graduate-level non-journalism courses relevant to the coverage of natural resource issues, or environmental science or environmental public health. |                                                              | 9         |
| <b>Professional Project or Portfolio</b>                                                                                                                                           |                                                              |           |
| Complete one of the following:                                                                                                                                                     |                                                              | 6         |
| JRNL 599                                                                                                                                                                           | Professional Project                                         |           |
| Two additional graduate-level journalism electives                                                                                                                                 |                                                              |           |
| <b>Total Hours</b>                                                                                                                                                                 |                                                              | <b>36</b> |

# Environmental Science and Natural Resource Journalism M.A. - Environmental Public Health Journalism

## General Graduate Program Requirements

Graduate School policies and standards can be found on the Graduate School Policies page (p. 440).

The minimum GPA for any graduate program is 3.0. Individual programs may require more than a 3.0 to remain in good standing.

The minimum grade for a course to be accepted toward any master's or doctoral requirement is C. The minimum grade for a course to be accepted toward a certificate program is B-. Individual programs may require higher grades for specific courses.

## Master of Arts - Environmental Science and Natural Resource Journalism; Environmental Public Health Journalism Concentration

### Course Requirements

| Code                                                                                                                                      | Title                                        | Hours     |
|-------------------------------------------------------------------------------------------------------------------------------------------|----------------------------------------------|-----------|
| <b>Required Journalism Courses</b>                                                                                                        |                                              |           |
| Complete all of the following courses:                                                                                                    |                                              |           |
| JRNL 567                                                                                                                                  | Press/Broadcast Law                          | 3         |
| JRNL 570                                                                                                                                  | Reporting                                    | 3         |
| JRNL 575                                                                                                                                  | Story Lab                                    | 3         |
| JRNL 594                                                                                                                                  | Seminar (Journalism and Society)             | 3         |
| JRNL 698                                                                                                                                  | Externship                                   | 3         |
| <b>Journalism Elective</b>                                                                                                                |                                              |           |
| Complete one 3-credit graduate-level Journalism course.                                                                                   |                                              | 3         |
| <b>Required Public Health Courses:</b>                                                                                                    |                                              |           |
| Complete all of the following courses:                                                                                                    |                                              |           |
| PUBH 510                                                                                                                                  | Intro to Epidemiology                        | 3         |
| PUBH 540                                                                                                                                  | Social & Behavioral Science in Public Health | 3         |
| PUBH 560                                                                                                                                  | Environmental & Rural Health                 | 3         |
| <b>Public Health Elective</b>                                                                                                             |                                              |           |
| Complete one additional public health or environmental science or policy elective that advances the student's stated focus.               |                                              | 3         |
| <b>Professional Project or Portfolio</b>                                                                                                  |                                              |           |
| Complete one of the following:                                                                                                            |                                              | 6         |
| JRNL 599                                                                                                                                  | Professional Project                         |           |
| 3 graduate-level credits in Journalism (JRNL) and 3 graduate-level credits in Public Health (PUBH) or an approved Public Health elective. |                                              |           |
| <b>Total Hours</b>                                                                                                                        |                                              | <b>36</b> |

## School of Music Programs

- Master of Music (p. 452)
- Master of Music Education (p. 453)

## Master of Music

### General Graduate Program Requirements

Graduate School policies and standards can be found on the Graduate School Policies page (p. 440).

The minimum GPA for any graduate program is 3.0. Individual programs may require more than a 3.0 to remain in good standing.

The minimum grade for a course to be accepted toward any master's or doctoral requirement is C. The minimum grade for a course to be accepted toward a certificate program is B-. Individual programs may require higher grades for specific courses.

## Master of Music

- Electives are chosen in consultation with the major advisor.
- Independent study may be substituted for required courses with the approval of the major advisor and the faculty member directing the study.
- At least 50% of the program must be at 500-600 level.
- In addition to graduate courses, three (3) credits of ensemble participation are required.
- A comprehensive oral exam must be passed after the completion of the professional project.
- The professional project will present at least one work using music technology as a compositional tool.
- There are two areas of specialization for the Master of Music degree: Composition or Performance. These are advising tracks only and not official programs as recognized by the University of Montana or the Montana University System. This information will not appear on a UM transcript, diploma, university lists, student data system, or university publication.

### Composition Course Requirements

| Code                                         | Title                         | Hours |
|----------------------------------------------|-------------------------------|-------|
| <b>Core Courses</b>                          |                               |       |
| Complete all of the following courses:       |                               |       |
| MUSI 500                                     | Secondary Performance Area    | 2     |
| or MUSI 551                                  | Major Performance Area        |       |
| MUSI 520                                     | Research in Music             | 2     |
| MUSI 554                                     | Analytical Techniques I       | 3     |
| MUSI 555                                     | Analytical Techniques II      | 3     |
| MUSI 559                                     | Composition                   | 6     |
| MUSI 599                                     | Thesis/Professional Project   | 2     |
| <b>Music History</b>                         |                               |       |
| Complete 6 credits of the following courses: |                               | 6     |
| MUSI 415                                     | Music 20th Century to Present |       |
| MUSI 416                                     | Topics in Music History       |       |
| MUSI 417                                     | Cultural Studies in Music     |       |
| <b>Music Technology</b>                      |                               |       |

|                                                         |           |
|---------------------------------------------------------|-----------|
| Complete 4 credits in the following courses:            | 4         |
| MUST 591 Special Topics                                 |           |
| MUST 592 Independent Study                              |           |
| <b>Additional Elective</b>                              |           |
| Complete 4 additional credits of graduate-level courses | 4         |
| <b>Performance</b>                                      |           |
| Complete 3 credits of ensemble courses                  | 3         |
| <b>Total Hours</b>                                      | <b>35</b> |

## Performance Course Requirements

| Code                                                   | Title                         | Hours     |
|--------------------------------------------------------|-------------------------------|-----------|
| <b>Core Courses</b>                                    |                               |           |
| Complete all of the following courses:                 |                               |           |
| MUSI 520                                               | Research in Music             | 2         |
| MUSI 551                                               | Major Performance Area        | 8         |
| MUSI 554                                               | Analytical Techniques I       | 3         |
| MUSI 555                                               | Analytical Techniques II      | 3         |
| MUSI 599                                               | Thesis/Professional Project   | 2         |
| <b>Music History</b>                                   |                               |           |
| Complete two of the following courses:                 |                               |           |
| MUSI 415                                               | Music 20th Century to Present |           |
| MUSI 416                                               | Topics in Music History       |           |
| MUSI 417                                               | Cultural Studies in Music     |           |
| <b>Electives</b>                                       |                               |           |
| Complete 6 credits of graduate-level courses in Music. |                               |           |
| <b>Total Hours</b>                                     |                               | <b>30</b> |

## Master of Music Education

### General Graduate Program Requirements

Graduate School policies and standards can be found on the Graduate School Policies page (p. 440).

The minimum GPA for any graduate program is 3.0. Individual programs may require more than a 3.0 to remain in good standing.

The minimum grade for a course to be accepted toward any master's or doctoral requirement is C. The minimum grade for a course to be accepted toward a certificate program is B-. Individual programs may require higher grades for specific courses.

## Master of Music Education

- This degree may be completed fully online or blended (i.e. hybrid of both face-to-face and fully online coursework).
- Students may choose to complete a thesis or project, or complete a non-thesis/project option with additional credits required.
- Courses not exclusively offered online can be requested as an online version (e.g. video-conference lessons in Applied Study). Please consult your major advisor.
- Additional Studies in Music and Electives are chosen in consultation with the major advisor and may include a limited number of Music Education Workshops, ordinarily offered during Summer Session. Potential courses: courses from the Creative Pulse (<http://www.umt.edu/creativepulse/>) program (using MUSE course

numbers), MUSI 491, or graduate-level courses from the Phyllis J. Washington College of Education. There may be other possibilities. Please contact your major advisor to discuss potential course choices for these categories.

- Independent Study or Special Topics courses may be substituted for any courses within Applied Study and Music History/Literature with the approval of the major advisor and the faculty member directing the independent study or teaching the special topics course.
- At least 50% of the total program (excluding 3 credits of required ensemble participation) must be graduate (500-600) level.
- A final defense is required of all students enrolled in this degree program. The final defense meeting can include a discussion of the student's completed thesis/professional project and/or the student's coursework. Students should consult their major advisor early in their degree program to begin the discussion of this meeting, including how a committee is formed. This meeting can be completed in-person or via video-conference.

## Course Requirements

| Code                                                                                                                                                  | Title                         | Hours |
|-------------------------------------------------------------------------------------------------------------------------------------------------------|-------------------------------|-------|
| <b>Core Courses</b>                                                                                                                                   |                               |       |
| Complete all of the following courses:                                                                                                                |                               |       |
| MUSI 520                                                                                                                                              | Research in Music             | 2     |
| MUSE 521                                                                                                                                              | Psychology of Music           | 2     |
| MUSE 522                                                                                                                                              | Philosophy of Music           | 2     |
| MUSI 554                                                                                                                                              | Analytical Techniques I       | 3     |
| MUSI 555                                                                                                                                              | Analytical Techniques II      | 3     |
| <b>Applied Study</b>                                                                                                                                  |                               |       |
| Complete all of the following courses:                                                                                                                |                               |       |
| MUSI 500                                                                                                                                              | Secondary Performance Area    | 2     |
| or MUSI 551                                                                                                                                           | Major Performance Area        |       |
| MUSI 511                                                                                                                                              | Advanced Conducting           | 2     |
| <b>Electives</b>                                                                                                                                      |                               |       |
| Complete 2 credits of elective courses chosen in consultation with your advisor.                                                                      |                               |       |
| <b>Ensemble Participation</b>                                                                                                                         |                               |       |
| Complete 3 credits of ensemble courses.                                                                                                               |                               |       |
| <b>Music History</b>                                                                                                                                  |                               |       |
| Complete one of the following courses:                                                                                                                |                               |       |
| MUSI 415                                                                                                                                              | Music 20th Century to Present |       |
| MUSI 416                                                                                                                                              | Topics in Music History       |       |
| MUSI 417                                                                                                                                              | Cultural Studies in Music     |       |
| <b>Additional Music Elective</b>                                                                                                                      |                               |       |
| Complete 5 credits of additional music courses chosen in consultation with your advisor.                                                              |                               |       |
| <b>Thesis/Project or Non-Thesis/Project Option</b>                                                                                                    |                               |       |
| Select one of the following Options:                                                                                                                  |                               |       |
| <b>Thesis/Project Option:</b>                                                                                                                         |                               |       |
| MUSI 599                                                                                                                                              | Thesis/Professional Project   |       |
| <b>Non-Thesis/Project Option:</b>                                                                                                                     |                               |       |
| Six (6) credits must be music courses. These may be similar to courses that would be appropriate to the "Additional Studies in Music" category above. |                               |       |

The remaining four (4) credits of coursework may serve as additional electives and be in any related field.

|             |       |
|-------------|-------|
| Total Hours | 33-39 |
|-------------|-------|

# School of Theatre and Dance Programs

- Theatre (p. 454)
  - Theatre M.A. (p. 454)
  - Theatre M.F.A. (p. 454)

## Theatre Programs

- Theatre M.A. (p. 454)
- Theatre M.F.A. (p. 454)

## Theatre M.A.

### General Graduate Program Requirements

Graduate School policies and standards can be found on the Graduate School Policies page (p. 440).

The minimum GPA for any graduate program is 3.0. Individual programs may require more than a 3.0 to remain in good standing.

The minimum grade for a course to be accepted toward any master’s or doctoral requirement is C. The minimum grade for a course to be accepted toward a certificate program is B-. Individual programs may require higher grades for specific courses.

### Master of Arts - Theatre

There are three options for completing the Master of Arts in Theatre:

- **Research-and-Practice track** - This track requires 27 credits of graduate-level coursework plus a 3-credit theatre practice project (THTR 590), which is defended orally in the last semester.
- **Professional Paper track** - This track requires 27 credits of graduate-level coursework plus a 3-credit professional paper (THTR 599), which is defended orally in the last semester.
- **Thesis Track** - This track requires 24 credits of graduate-level coursework plus a 6-credit critical thesis (minimum of 10,000 words; THTR 599), which is defended orally in the last semester.

### Course Requirements

| Code                                   | Title                               | Hours |
|----------------------------------------|-------------------------------------|-------|
| Required Courses                       |                                     |       |
| Complete all of the following courses: |                                     |       |
| THTR 501                               | Intro to Grad Studies               | 1     |
| THTR 531                               | Graduate Seminar in Theatre History | 3     |
| THTR 532                               | Graduate Seminar in Dramaturgy      | 3     |
| THTR 535                               | Performance Theory & Criticism      | 3     |
| THTR 595                               | Practicum (Performance Studies)     | 3     |
| Advanced Studio Course                 |                                     |       |
| Complete one of the following courses: |                                     |       |
| THTR 475                               | Directing II                        | 3     |

|                                                                                                              |                                                              |
|--------------------------------------------------------------------------------------------------------------|--------------------------------------------------------------|
| THTR 513                                                                                                     | Graduate Voice & Speech I                                    |
| THTR 515                                                                                                     | Graduate Physical Performance Skills                         |
| THTR 520                                                                                                     | Graduate Acting I                                            |
| Electives                                                                                                    |                                                              |
| Complete 11-14 credits of electives chosen in consultation with your advisor.                                |                                                              |
| 11-14                                                                                                        |                                                              |
| Project, Professional Paper, Or Thesis                                                                       |                                                              |
| Complete one of the following courses for 3-6 credits, depending on the option you choose with your advisor: |                                                              |
| 3-6                                                                                                          |                                                              |
| THTR 599                                                                                                     | Thesis/Professional Paper/Final Creative Project (3 credits) |
| THTR 590                                                                                                     | Research (3 credits)                                         |
| Total Hours                                                                                                  | 30                                                           |

## Theatre M.F.A

### General Graduate Program Requirements

Graduate School policies and standards can be found on the Graduate School Policies page (p. 440).

The minimum GPA for any graduate program is 3.0. Individual programs may require more than a 3.0 to remain in good standing.

The minimum grade for a course to be accepted toward any master’s or doctoral requirement is C. The minimum grade for a course to be accepted toward a certificate program is B-. Individual programs may require higher grades for specific courses.

### Master of Fine Arts - Theatre Specializations

There are four areas of specialization for the M.F.A. in Theatre, each with its own requirements. Based on the student’s transcript and professional experience within the field, courses may be added, substituted, or waived with approval of the program head and Director of the School of Theatre and Dance.

- Acting - 64 credits
- Design & Technology - 60 credits
- Directing - 64 credits
- Music Directing - 64 credits

### Acting Course Requirements

In addition to the requirements listed, students must:

- Serve as teaching assistant for faculty instructor of at least one undergraduate performance course.
- Complete a minimum of three major acting projects, with one being part of the Final Creative Project.

| Code                                   | Title                                | Hours |
|----------------------------------------|--------------------------------------|-------|
| Required Courses                       |                                      |       |
| Complete all of the following courses: |                                      |       |
| THTR 475                               | Directing II                         | 3     |
| THTR 476                               | Directing III                        | 3     |
| THTR 501                               | Intro to Grad Studies                | 1     |
| THTR 513                               | Graduate Voice & Speech I            | 3     |
| THTR 515                               | Graduate Physical Performance Skills | 3     |

|          |                                                  |     |
|----------|--------------------------------------------------|-----|
| THTR 520 | Graduate Acting I                                | 3   |
| THTR 521 | Grad Acting II                                   | 3   |
| THTR 526 | Studio Training I                                | 3   |
| THTR 527 | Studio Training II                               | 3   |
| THTR 528 | Studio Training III                              | 3   |
| THTR 535 | Performance Theory & Criticism                   | 3   |
| THTR 539 | Graduate Methods Teaching Theatre                | 3   |
| THTR 591 | Special Topics (Professional Skills)             | 1   |
| THTR 595 | Practicum (Performance)                          | 4   |
| THTR 599 | Thesis/Professional Paper/Final Creative Project | 1-6 |

**Electives**

Complete 24 credits of electives chosen in consultation with your advisor. At least one course must be a 500-level course in the School of Theatre and Dance. At least one course must be a graduate-level course outside of the School in a discipline relevant to the Final Creative Project.

**Total Hours** **64**

**Design and Technology Course Requirements**

| Code                                   | Title                                  | Hours |
|----------------------------------------|----------------------------------------|-------|
| <b>Required Courses</b>                |                                        |       |
| Complete all of the following courses: |                                        |       |
| THTR 501                               | Intro to Grad Studies                  | 1     |
| THTR 531                               | Graduate Seminar in Theatre History    | 3     |
| THTR 556                               | Graduate Rendering Techniques          | 2     |
| THTR 545                               | Graduate Design Seminar: Collaboration | 2     |
| THTR 546                               | Graduate Design Seminar: Freelancing   | 2     |
| THTR 609                               | Grad Design Project                    | 4     |
| THTR 645                               | Graduate Design Seminar: Teaching      | 2     |
| THTR 646                               | Graduate Design Seminar: Outreach      | 2     |

**Primary Design Emphasis**

Complete 9 credits of the following courses: 9

|                                                |                            |  |
|------------------------------------------------|----------------------------|--|
| THTR 540                                       | Graduate Costume Design    |  |
| THTR 550                                       | Graduate Scene Design      |  |
| THTR 560                                       | Graduate Light Design      |  |
| THTR 565                                       | Graduate Sound Design      |  |
| Complete 3 credits of the following courses: 3 |                            |  |
| THTR 542                                       | Problems in Costume Design |  |
| THTR 552                                       | Problems in Scene Design   |  |
| THTR 562                                       | Problems in Light Design   |  |
| THTR 567                                       | Problems in Sound Design   |  |

**Secondary Design Emphasis**

Complete 3 credits of the following courses: 3

|          |                         |  |
|----------|-------------------------|--|
| THTR 540 | Graduate Costume Design |  |
| THTR 550 | Graduate Scene Design   |  |
| THTR 560 | Graduate Light Design   |  |
| THTR 565 | Graduate Sound Design   |  |

Complete 3 credits of the following courses: 3

|          |                            |  |
|----------|----------------------------|--|
| THTR 542 | Problems in Costume Design |  |
| THTR 552 | Problems in Scene Design   |  |

|          |                          |  |
|----------|--------------------------|--|
| THTR 562 | Problems in Light Design |  |
| THTR 567 | Problems in Sound Design |  |

**Production Assignments**

Complete 9 credits of the following courses: 9

|          |                                 |  |
|----------|---------------------------------|--|
| THTR 507 | Technical Production Assignment |  |
| THTR 508 | Design Production Assignment    |  |

**Electives**

Complete 15 credits of graduate-level courses chosen in consultation with your advisor. 15

**Total Hours** **60**

**Directing Course Requirements**

In addition to the requirements below, students must:

- Serve as teaching assistant for THTR 375.
- Serve as stage manager for faculty director.
- Serve as assistant director to faculty director.
- Complete three major directing projects, the last being part of the Final Creative Project.

| Code                    | Title                                            | Hours |
|-------------------------|--------------------------------------------------|-------|
| <b>Required Courses</b> |                                                  |       |
| THTR 475                | Directing II                                     | 3     |
| THTR 476                | Directing III                                    | 3     |
| THTR 501                | Intro to Grad Studies                            | 1     |
| THTR 513                | Graduate Voice & Speech I                        | 3     |
| THTR 515                | Graduate Physical Performance Skills             | 3     |
| THTR 520                | Graduate Acting I                                | 3     |
| THTR 521                | Grad Acting II                                   | 3     |
| THTR 532                | Graduate Seminar in Dramaturgy                   | 3     |
| THTR 539                | Graduate Methods Teaching Theatre                | 3     |
| THTR 545                | Graduate Design Seminar: Collaboration           | 2     |
| THTR 570                | Graduate Stage Management                        | 2     |
| THTR 572                | Stage Management Practicum                       | 1-6   |
| THTR 577                | Directing IV                                     | 3     |
| THTR 578                | Directing V                                      | 3     |
| THTR 591                | Special Topics (Professional Skills)             | 1     |
| THTR 595                | Practicum (Directing)                            | 4     |
| THTR 675                | Directing VI                                     | 3     |
| THTR 677                | Problems in Directing                            | 1-3   |
| THTR 599                | Thesis/Professional Paper/Final Creative Project | 1-6   |

**Electives**

Complete 18 credits of electives chosen in consultation with your advisor. At least one course must be a 500-level course in the School of Theatre and Dance. At least one course must be a graduate-level course outside of the School in a discipline relevant to the Final Creative Project.

**Total Hours** **64**



Music Directing Course Requirements

In addition to the requirements listed below, students must:

- Serve as teaching assistant in undergraduate musical-theatre curriculum.
- Serve as assistant music director/rehearsal accompanist to faculty music director.
- Complete three major music directing projects, the last being part of the Final Creative Project.

| Code                                                                                                                                                                                                                                                                                            | Title                                                | Hours     |
|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|------------------------------------------------------|-----------|
| <b>Required Theatre Courses</b>                                                                                                                                                                                                                                                                 |                                                      |           |
| Complete all of the following courses:                                                                                                                                                                                                                                                          |                                                      |           |
| THTR 475                                                                                                                                                                                                                                                                                        | Directing II                                         | 3         |
| THTR 476                                                                                                                                                                                                                                                                                        | Directing III                                        | 3         |
| THTR 501                                                                                                                                                                                                                                                                                        | Intro to Grad Studies                                | 1         |
| THTR 520                                                                                                                                                                                                                                                                                        | Graduate Acting I                                    | 3         |
| THTR 521                                                                                                                                                                                                                                                                                        | Grad Acting II                                       | 3         |
| THTR 532                                                                                                                                                                                                                                                                                        | Graduate Seminar in Dramaturgy                       | 3         |
| THTR 599                                                                                                                                                                                                                                                                                        | Thesis/Professional Paper/Final Creative Project     | 6         |
| <b>Required Music Courses</b>                                                                                                                                                                                                                                                                   |                                                      |           |
| Complete all of the following courses:                                                                                                                                                                                                                                                          |                                                      |           |
| MUSI 416                                                                                                                                                                                                                                                                                        | Topics in Music History (History of Musical Theatre) | 3         |
| MUSI 442                                                                                                                                                                                                                                                                                        | Vocal Studio Pedagogy and Lit                        | 2         |
| MUSI 500                                                                                                                                                                                                                                                                                        | Secondary Performance Area (Voice)                   | 2         |
| MUSI 511                                                                                                                                                                                                                                                                                        | Advanced Conducting                                  | 2         |
| MUSI 551                                                                                                                                                                                                                                                                                        | Major Performance Area (Piano)                       | 4         |
| MUSI 591                                                                                                                                                                                                                                                                                        | Special Topics (Musical Direction for Theatre)       | 1         |
| MUSI 591                                                                                                                                                                                                                                                                                        | Special Topics (Graduate Jazz)                       | 1         |
| MUSI 592                                                                                                                                                                                                                                                                                        | Independent Study (UM Cabaret)                       | 1         |
| MUSI 599                                                                                                                                                                                                                                                                                        | Thesis/Professional Project (Music Direction)        | 6         |
| <b>Sound Design &amp; Technology Elective</b>                                                                                                                                                                                                                                                   |                                                      |           |
| Complete 3 credits of graduate-level courses in MART, MUSI, or THTR                                                                                                                                                                                                                             |                                                      | 3         |
| <b>Advanced Performance Elective</b>                                                                                                                                                                                                                                                            |                                                      |           |
| Complete 3 credits of graduate-level courses in DANC, MUSI, or THTR                                                                                                                                                                                                                             |                                                      | 3         |
| <b>Electives</b>                                                                                                                                                                                                                                                                                |                                                      |           |
| Complete 14 credits of electives chosen in consultation with your advisor. At least one course must be a 500-level course in the School of Theatre and Dance. At least one course must be a graduate-level course outside of the School in a discipline relevant to the Final Creative Project. |                                                      | 14        |
| <b>Total Hours</b>                                                                                                                                                                                                                                                                              |                                                      | <b>64</b> |

School of Visual and Media Arts Programs

- Art M.A. (p. 456)
- Art M.F.A. (p. 456)
- Game Design and Interactive Media M.F.A. (p. 457)

- Media Arts M.F.A. (p. 458)
- Museum Studies Certificate (p. 458)
- New West: Art and the Environment Graduate Certificate (p. 459)

Art M.A. General Graduate Program Requirements

Graduate School policies and standards can be found on the Graduate School Policies page (p. 440).

The minimum GPA for any graduate program is 3.0. Individual programs may require more than a 3.0 to remain in good standing.

The minimum grade for a course to be accepted toward any master’s or doctoral requirement is C. The minimum grade for a course to be accepted toward a certificate program is B-. Individual programs may require higher grades for specific courses.

Master of Arts - Art Course Requirements

| Code                                                                                                | Title                                  | Hours     |
|-----------------------------------------------------------------------------------------------------|----------------------------------------|-----------|
| Complete all of the following courses:                                                              |                                        |           |
| ARTH 503                                                                                            | Critical Theories in the Visual Arts I | 3         |
| ARTH 509                                                                                            | Critical Theories in Visual Arts II    | 3         |
| ARTZ 501                                                                                            | Graduate Critique Seminar              | 6         |
| ARTZ 505                                                                                            | Graduate Studio Research: Art          | 12        |
| One elective graduate-level course chosen in consultation with your advisor (excludes ARTZ courses) |                                        | 3         |
| ARTZ 599                                                                                            | Thesis Paper/Exhibition                | 3         |
| <b>Total Hours</b>                                                                                  |                                        | <b>30</b> |

Art M.F.A.

At the core of our M.F.A. program is a close one-on-one mentorship with professors and regular critiques with fellow students. Students investigate ideas and process deeply and develop their understanding through studio work, research, writing, presentation, and critical analysis. The coursework includes:

- individual study with professors,
- theory and criticism,
- professional development and college teaching,
- critique colloquia, and
- thematic studio explorations.

General Graduate Program Requirements

Graduate School policies and standards can be found on the Graduate School Policies page (p. 440).

The minimum GPA for any graduate program is 3.0. Individual programs may require more than a 3.0 to remain in good standing.

The minimum grade for a course to be accepted toward any master’s or doctoral requirement is C. The minimum grade for a course to be accepted toward a certificate program is B-. Individual programs may require higher grades for specific courses.

## Master of Fine Arts - Art Course Requirements

Note: Students are limited to only six (6) credits of graduate-level approved 400-level courses

| Code                                                                                 | Title                                  | Hours     |
|--------------------------------------------------------------------------------------|----------------------------------------|-----------|
| <b>Art History and Critical Theory</b>                                               |                                        |           |
| Complete at least 6 credits of the following courses:                                |                                        | 6         |
| ARTH 503                                                                             | Critical Theories in the Visual Arts I |           |
| ARTH 509                                                                             | Critical Theories in Visual Arts II    |           |
| Graduate-level Art History or open elective chosen in consultation with your advisor |                                        |           |
| <b>Independent Studio Research</b>                                                   |                                        |           |
| Complete at least 24 credits of the following courses:                               |                                        | 24        |
| ARTH 592                                                                             | Independent Study                      |           |
| ARTZ 498                                                                             | Internship                             |           |
| or ARTZ 598 Internship                                                               |                                        |           |
| ARTZ 505                                                                             | Graduate Studio Research: Art          |           |
| <b>Graduate Critique Seminar</b>                                                     |                                        |           |
| Complete at least 10 credits of the following course:                                |                                        | 10        |
| ARTZ 501                                                                             | Graduate Critique Seminar              |           |
| <b>Pedagogy, Professional Development, Beyond Art School, Electives, and Thesis</b>  |                                        |           |
| Complete at least 20 credits of the following courses:                               |                                        | 20        |
| ARTZ 498                                                                             | Internship                             |           |
| or ARTZ 598 Internship                                                               |                                        |           |
| ARTZ 504                                                                             | Pre-Candidacy                          |           |
| ARTZ 506                                                                             | Graduate Pedagogy                      |           |
| ARTZ 507                                                                             | Beyond Art School                      |           |
| ARTZ 599                                                                             | Thesis Paper/Exhibition                |           |
| Any Art History (ARTH) course                                                        |                                        |           |
| Other courses chosen in consultation with your advisor.                              |                                        |           |
| <b>Total Hours</b>                                                                   |                                        | <b>60</b> |

## Game Design and Interactive Media M.F.A.

The Master of Fine Arts in Game Design and Interactive Media is a three-year program committed to the growth of game developers, artists, and designers who are working in one or more areas of game design and interactive media.

Our students come from a wide range of backgrounds and thrive in a multi-disciplinary environment. Students expand on skill sets they already have while adding new ones. They work on individual projects and collaborate with others, and they work to bring a deep foundation of research to their practices as they develop their unique point-of-view and creative voice.

The entire program requires the building of a portfolio that includes artistic and academic work assuring that each student is prepared to leave school and enter the professional world of game design and interactive media with the capstone in the last semester.

Students work on an individual project each semester, meeting one-on-one with professors, participating in group critique with peers, and

refining skills. Simultaneously, students take core classes with their cohort. They also construct a path to other classes within the program and across campus to support their technical and research development.

## General Graduate Program Requirements

Graduate School policies and standards can be found on the Graduate School Policies page (p. 440).

The minimum GPA for any graduate program is 3.0. Individual programs may require more than a 3.0 to remain in good standing.

The minimum grade for a course to be accepted toward any master's or doctoral requirement is C. The minimum grade for a course to be accepted toward a certificate program is B-. Individual programs may require higher grades for specific courses.

## Online Program Option

This program may be completed in an online format (<https://catalog.umn.edu/online-programs/definitions/>). Students interested in pursuing an online degree or certificate program are strongly encouraged to contact the offering department to discuss specific program and course modalities (<https://catalog.umn.edu/online-programs/definitions/>) and create a plan of study with an academic advisor. The course requirements listed below may not be consistently offered via online delivery.

## Master of Fine Arts - Game Design and Interactive Media

### Checkpoints:

- Year 1: Committee reviews year end portfolio to determine continuing the program.
- Year 2: Student works on developing thesis proposal for final year autumn semester.
- Year 3: Pre-thesis proposal in autumn semester with a presentation and prototype to determine moving forward.
- Thesis semester: Student works with committee members and advisor for thesis project, paper, and defense.

## Course Requirements

| Code                                          | Title                                                | Hours |
|-----------------------------------------------|------------------------------------------------------|-------|
| <b>Graduate Game Seminar</b>                  |                                                      |       |
| Complete 18 credits of the following course:  |                                                      | 18    |
| MART 581                                      | Graduate Game Seminar                                |       |
| <b>Core Research and Theory</b>               |                                                      |       |
| Complete 12 credits of the following courses: |                                                      | 12    |
| MART 521                                      | Game Analysis & Theory                               |       |
| MART 582                                      | Graduate Studio in Game Design and Interactive Media |       |
| MART 603                                      | Advanced Topics in Game Design and Interactive Media |       |
| <b>Professional Development Electives</b>     |                                                      |       |
| Complete 6 credits of the following courses:  |                                                      | 6     |
| ARTZ 506                                      | Graduate Pedagogy                                    |       |
| ARTZ 507                                      | Beyond Art School                                    |       |
| BMGT 402                                      | Principles of Entertainment & Sport Business         |       |

|                                               |                                                   |           |
|-----------------------------------------------|---------------------------------------------------|-----------|
| BMGT 403                                      | Advanced Topics in Entertainment & Sport Business |           |
| MART 443                                      | Professional Development in Games                 |           |
| MART 520                                      | Core Research: Peer Teaching                      |           |
| MART 531                                      | Professional Presentation in Games                |           |
| <b>Independent Study and Research</b>         |                                                   |           |
| Complete 12 Credits of the following courses: |                                                   | 12        |
| MART 578                                      | Graduate Studio                                   |           |
| MART 592                                      | Independent Study                                 |           |
| <b>Pre-Thesis &amp; Thesis</b>                |                                                   |           |
| Complete all of the following courses:        |                                                   |           |
| MART 687                                      | Final Portfolio I                                 | 3         |
| MART 699                                      | Final Portfolio II                                | 9         |
| <b>Total Hours</b>                            |                                                   | <b>60</b> |

## Media Arts M.F.A.

The Master of Fine Arts in Media Arts is a three-year program committed to the growth of storytellers, artists, and designers who are working in one or more areas of the digital media arts. These areas include documentary and fiction filmmaking, game design, digital design, sound art, animation, interactivity, immersive experience design, and installation work.

Our students come from a wide range of backgrounds and thrive in a multi-disciplinary environment. Students expand on skill sets they already have while adding new ones, work on individual projects and collaborate with others, and work to bring a deep foundation of research to their practices as they develop their unique point-of-view and creative voice.

The program requires the building of a portfolio that includes artistic and academic work, assuring that each student is prepared to leave school and enter the professional world of media in the 21st century.

Students work on an individual studio project each semester, meeting one-on-one with professors, participating in group critique with peers, and refining their skills. Simultaneously, students take core classes with their cohort and construct a path to other classes within the Art and Media Arts programs and across campus to support their technical and research development.

## General Graduate Program Requirements

Graduate School policies and standards can be found on the Graduate School Policies page (p. 440).

The minimum GPA for any graduate program is 3.0. Individual programs may require more than a 3.0 to remain in good standing.

The minimum grade for a course to be accepted toward any master's or doctoral requirement is C. The minimum grade for a course to be accepted toward a certificate program is B-. Individual programs may require higher grades for specific courses.

## Master of Fine Arts - Media Arts Course Requirements

| Code                                             | Title                        | Hours |
|--------------------------------------------------|------------------------------|-------|
| <b>Individual Research and Creative Practice</b> |                              |       |
| Complete 18 credits of the following course:     |                              | 18    |
| MART 578                                         | Graduate Studio <sup>1</sup> |       |

|                                                                                               |                                                             |   |
|-----------------------------------------------------------------------------------------------|-------------------------------------------------------------|---|
| <b>Core Research</b>                                                                          |                                                             |   |
| Complete all of the following courses:                                                        |                                                             |   |
| MART 500                                                                                      | Core Research: Practice-Led Research in Arts and Technology | 3 |
| MART 510                                                                                      | Core Research: Creative Process and Story                   | 3 |
| <b>Professional Development Electives <sup>2</sup></b>                                        |                                                             |   |
| Complete 3 credits in one of the following courses or other courses approved by your advisor: |                                                             | 3 |
| ARTZ 506                                                                                      | Graduate Pedagogy                                           |   |
| MART 520                                                                                      | Core Research: Peer Teaching                                |   |
| THTR 539                                                                                      | Graduate Methods Teaching Theatre                           |   |
| Complete 3 credits of the following courses:                                                  |                                                             | 3 |
| ARTZ 507                                                                                      | Beyond Art School                                           |   |
| MART 530                                                                                      | Core Research: Professional Presentation                    |   |
| BMGT 402                                                                                      | Principles of Entertainment & Sport Business                |   |
| or BMGT 403: Advanced Topics in Entertainment & Sport Business                                |                                                             |   |

|                                                                                                                                                                                                                    |  |       |
|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|--|-------|
| <b>Media Practicum, Skill/Technique Courses, and Electives</b>                                                                                                                                                     |  |       |
| Complete 12-18 credits of graduate-level courses as approved by graduate coordinator and studio mentor. This includes course in the follow subjects: MART, ARTZ, ARTH, CP, JRNL, MUSI, MUSE, MUST, THTR, and CRWR. |  | 12-18 |

|                                                  |                          |           |
|--------------------------------------------------|--------------------------|-----------|
| <b>Final Portfolio</b>                           |                          |           |
| Complete 12-24 credits of the following courses: |                          | 12-24     |
| MART 601                                         | Final Portfolio Research |           |
| MART 687                                         | Final Portfolio I        |           |
| MART 699                                         | Final Portfolio II       |           |
| <b>Total Hours</b>                               |                          | <b>60</b> |

<sup>1</sup> Students work on specific projects each semester with an assigned mentor from the program. Substitutions may be made if the mentor/project is from another unit on campus.

<sup>2</sup> Professional development requires different skill sets and educational experiences in the world of Media Arts. Students are advised to find 6 credits of courses from these or other courses across the university.

## Museum Studies Certificate

The Museum Studies Certificate offers graduate-level knowledge, skills, and experiential training in the field of museums and galleries. The certificate is a 3-semester, 12-credit course of study with a field project conducted during the 3 semesters. Students take five 2-credit seminars in their first two semesters and one 2-credit Field Project Seminar in the 3rd term. Three seminars form a 6-credit core of courses that will be offered each year. This is a low-residential hybrid certificate with coursework delivered in-person and synchronously online with the Field Project Seminar held in the third semester on campus or remotely from a recognized museum or gallery.

## General Graduate Program Requirements

Graduate School policies and standards can be found on the Graduate School Policies page (p. 440).

The minimum GPA for any graduate program is 3.0. Individual programs may require more than a 3.0 to remain in good standing.

The minimum grade for a course to be accepted toward any master's or doctoral requirement is C. The minimum grade for a course to be accepted toward a certificate program is B-. Individual programs may require higher grades for specific courses.

## Graduate Certificate - Museum Studies

### Course Requirements

| Code                                          | Title                                              | Hours     |
|-----------------------------------------------|----------------------------------------------------|-----------|
| <b>Complete all of the following courses:</b> |                                                    |           |
| ARTH 584                                      | Museum Studies Seminar (Exhibit Design)            | 2         |
| ARTH 584                                      | Museum Studies Seminar (Museum History and Theory) | 2         |
| ARTH 595                                      | Museum Studies Field Project                       | 2         |
| ARTH 584                                      | Museum Studies Seminar                             | 6         |
| <b>Total Hours</b>                            |                                                    | <b>12</b> |

## New West: Art and the Environment Graduate Certificate

Art provides a critical lens to explore the history, use, and contemporary stewardship of western American lands. Working independently and collaboratively in hands-on research, students will study in the field, studio, seminar, and lecture. This certificate is appropriate for students from a wide range of disciplines. Students learn visual expression skills for innovative interpretations and positive solutions.

Students are admitted to the New West Certificate by completion of application. The application is posted on line through the School of Visual and Media Arts website (<https://www.umt.edu/academics/programs/new-west-art/default.php>).

## General Graduate Program Requirements

Graduate School policies and standards can be found on the Graduate School Policies page (p. 440).

The minimum GPA for any graduate program is 3.0. Individual programs may require more than a 3.0 to remain in good standing.

The minimum grade for a course to be accepted toward any master's or doctoral requirement is C. The minimum grade for a course to be accepted toward a certificate program is B-. Individual programs may require higher grades for specific courses.

## Graduate Certificate - The New West: Art and the Environment

### Course Requirements

| Code                                          | Title                                               | Hours     |
|-----------------------------------------------|-----------------------------------------------------|-----------|
| <b>Complete all of the following courses:</b> |                                                     |           |
| ARTH 444                                      | Open Range: Land Art and the American Consciousness | 3         |
| ARTZ 410                                      | Advanced Research- Drawing                          | 3         |
| ARTZ 420                                      | Advanced Research- Painting                         | 3         |
| FILM 481                                      | Advanced Studies in Film                            | 3         |
| <b>Total Hours</b>                            |                                                     | <b>12</b> |

## Integrated Arts and Education M.A. General Graduate Program Requirements

Graduate School policies and standards can be found on the Graduate School Policies page (p. 440).

The minimum GPA for any graduate program is 3.0. Individual programs may require more than a 3.0 to remain in good standing.

The minimum grade for a course to be accepted toward any master's or doctoral requirement is C. The minimum grade for a course to be accepted toward a certificate program is B-. Individual programs may require higher grades for specific courses.

## Master of Arts - Integrated Arts and Education

- The Master of Arts in Integrated Arts and Education is completed over two summer sessions in residence plus independent studies throughout the year and a final project. This schedule allows maximum convenience and flexibility to working educators.
- Each residency consists of 2 Summers, 4 weeks each, built upon three major experiences: seminars, practicums, and studio apprenticeships. Students fulfill 20 credits in core courses and 16 credits in additional requirements, earning a total of 36 credits for the degree. Independent Coursework is completed throughout the school year, culminating in a final creative project.

### Course Requirements

| Code                                                       | Title                                                       | Hours     |
|------------------------------------------------------------|-------------------------------------------------------------|-----------|
| <b>Core Courses</b>                                        |                                                             |           |
| Complete all of the following courses:                     |                                                             |           |
| CP 582                                                     | Arts Education Seminar I                                    | 4         |
| CP 583                                                     | Arts Education Seminar II                                   | 4         |
| CP 584                                                     | Arts Education Seminar III                                  | 4         |
| CP 585                                                     | Arts Education Seminar IV                                   | 4         |
| CP 587                                                     | Arts Education Practicum (Performance Studies)              | 4         |
| <b>Approved Electives</b>                                  |                                                             |           |
| Complete 6 credits of arts apprenticeships studio courses. |                                                             | 6         |
| CP 588                                                     | Creative Pulse Apprenticeship (various sections)            |           |
| <b>Writing</b>                                             |                                                             |           |
| Complete all of the following courses:                     |                                                             |           |
| CP 588                                                     | Creative Pulse Apprenticeship (Awakening the Writer Within) | 2         |
| CP 588                                                     | Creative Pulse Apprenticeship (Advanced Writing Lab)        | 2         |
| <b>Final Project</b>                                       |                                                             |           |
| Complete all of the following courses:                     |                                                             |           |
| CP 589                                                     | Arts Education Field Project                                | 1         |
| CP 590                                                     | Research                                                    | 4         |
| CP 599                                                     | Professional Paper                                          | 1         |
| <b>Total Hours</b>                                         |                                                             | <b>36</b> |

# College of Business Graduate Programs

The University of Montana's College of Business graduate programs prepare students to confidently lead in today's fast-paced, global business environment. With a strong foundation in strategic thinking, leadership, and data-informed decision-making, the programs are designed for professionals looking to enhance their impact across various industries.

## Core Graduate Degrees:

- Master of Business Administration
- Master of Accountancy
- Master of Science in Business Analytics

In addition to the core graduate programs, students may customize their educational journey through a variety of stackable or standalone graduate certificates in high-demand areas, including:

- Cybersecurity
- Entrepreneurship
- Logistics
- Entertainment Management

These certificates provide targeted expertise and allow students to expand their professional opportunities while working toward a graduate degree or as standalone credentials.

## Joint Degree Programs

The College of Business offers several joint degree pathways that allow students to pursue an MBA alongside other professional degrees, enhancing interdisciplinary knowledge and expanding career opportunities. There are joint degree pathways for the following programs:

- Juris Doctor
- Doctor of Physical Therapy
- Doctor of Pharmacy

The College of Business graduate programs offer students flexibility, quality, and applied learning experiences to help them achieve their goals, advance within their current organization, transition to a new career path, or launch their own venture.

More information can be found on the College of Business graduate programs website ([https://umt-business.college-tour.com/homepage/?pk\\_campaign=PrintAds](https://umt-business.college-tour.com/homepage/?pk_campaign=PrintAds)).

## Programs

- Master of Business Administration (p. 460)
- Master of Accountancy (p. 461)
- Business Analytics M.S. (p. 461)
- Cybersecurity Management Graduate Certificate (p. 462)
- Entertainment Management Graduate Certificate (p. 463)
- Entrepreneurship Graduate Certificate (p. 463)
- Logistics & Supply Chain Management Graduate Certificate (p. 463)

# Master of Business Administration

The Master of Business Administration (MBA) at the University of Montana is a flexible and professionally focused 32-credit-hour program designed to prepare students for leadership roles in various industries. The curriculum includes 19 credits of core courses and 13 credits of electives, allowing students to build a strong foundation in key business disciplines while tailoring their education to match their career goals.

Depending on their prior academic background, students without an undergraduate degree in business may be required to complete up to 15 credits of foundational coursework, which are available online.

Instead of a thesis, MBA students complete an integrated project course, which is part of the core curriculum and provides a real-world, applied learning experience.

The program offers flexible scheduling options with courses offered in person, online, and remotely. Full-time students with a business background can complete the program in as little as one year. Part-time students typically finish in two to five years, accommodating the working professionals.

The UM MBA is designed for students seeking a customizable high-impact graduate business education that combines academic rigor with practical application and flexible delivery.

## General Graduate Program Requirements

Graduate School policies and standards can be found on the Graduate School Policies page (p. 440).

The minimum GPA for any graduate program is 3.0. Individual programs may require more than a 3.0 to remain in good standing.

The minimum grade for a course to be accepted toward any master's or doctoral requirement is C. The minimum grade for a course to be accepted toward a certificate program is B-. Individual programs may require higher grades for specific courses.

## Online Program Option

This program may be completed in an online format (<https://catalog.umn.edu/online-programs/definitions/>). Students interested in pursuing an online degree or certificate program are strongly encouraged to contact the offering department to discuss specific program and course modalities (<https://catalog.umn.edu/online-programs/definitions/>) and create a plan of study with an academic advisor. The course requirements listed below may not be consistently offered via online delivery.

# Master of Business Administration

## Course Requirements

| Code                                   | Title                   | Hours |
|----------------------------------------|-------------------------|-------|
| Required Courses                       |                         |       |
| Complete all of the following courses: |                         |       |
| ACTG 605                               | Administrative Controls | 2     |
| BFIN 681                               | Financial Management    | 2     |
| BMGT 604                               | Competitive Strategy    | 1     |
| BMGT 640                               | Organizational Behavior | 2     |
| BMGT 650                               | Business Ethics         | 1     |
| BMGT 665                               | Strategic Mgmt Seminar  | 2     |



|                                                             |                                   |           |
|-------------------------------------------------------------|-----------------------------------|-----------|
| BMGT 685                                                    | International Business            | 2         |
| BMIS 650                                                    | Quantitative Analysis             | 2         |
| BMIS 674                                                    | Management of Information Systems | 2         |
| BMKT 660                                                    | Marketing Management              | 2         |
| MBA 603                                                     | Integrated Project                | 1         |
| <b>Electives</b>                                            |                                   |           |
| Complete 13 credits of electives. Possible courses include: |                                   | 13        |
| ACTG 694                                                    | Seminar                           |           |
| BFIN 651                                                    | Cornerstone of Graduate Finance   |           |
| BGEN 694                                                    | Seminar                           |           |
| BMIS 575                                                    | Fundamentals of Consulting        |           |
| BMIS 694                                                    | Seminar                           |           |
| BMKT 694                                                    | Seminar                           |           |
| MBA 645                                                     | Interpersonal Perspectives        |           |
| MBA 655                                                     | Technology Seminar                |           |
| MBA 692                                                     | Independent Study                 |           |
| MBA 694                                                     | Seminar                           |           |
| MBA 695                                                     | Practicum                         |           |
| MBA 698                                                     | Internship                        |           |
| <b>Total Hours</b>                                          |                                   | <b>32</b> |

## Master of Accountancy

The mission of the University of Montana Master of Accountancy program is to provide breadth and depth in accounting, auditing, taxation, and business to develop a high level of technical knowledge, technology awareness, and leadership capability for advancement in the accounting profession and other related business careers.

The two-semester program covers 30 credits. Students will complete a rigorous accounting core (15 credits) and have flexibility in choosing electives (15 credits), including internships and courses in topics facing accounting professionals.

When combined with an undergraduate accounting degree from most accredited institutions, our program results in 150 total credit hours of education, qualifying most students for CPA licensure following successful completion of all parts of the CPA exam and fulfillment of experience requirements for licensure in their state.

Students will master both technical and soft skills such as teamwork and communication by frequently working together on projects and cases. We build the review for the CPA exam into the curriculum and help students schedule the exam as a part of the program.

## General Graduate Program Requirements

Graduate School policies and standards can be found on the Graduate School Policies page (p. 440).

The minimum GPA for any graduate program is 3.0. Individual programs may require more than a 3.0 to remain in good standing.

The minimum grade for a course to be accepted toward any master's or doctoral requirement is C. The minimum grade for a course to be accepted toward a certificate program is B-. Individual programs may require higher grades for specific courses.

## Online Program Option

This program may be completed in an online format (<https://catalog.umn.edu/online-programs/definitions/>). Students interested in pursuing an online degree or certificate program are strongly encouraged to contact the offering department to discuss specific program and course modalities (<https://catalog.umn.edu/online-programs/definitions/>) and create a plan of study with an academic advisor. The course requirements listed below may not be consistently offered via online delivery.

## Master of Accountancy

### Course Requirements

- Students may take up to six credits of any MBA elective courses. The additional six credits of MBA elective credits should be related to the student's planned/desired field of employment and must be approved by the Graduate Program Director prior to registration.
- All students must either pass the CPA exams with a minimum score of 60 or complete the program's exit exam with an overall score of at least 75% and a minimum of 50% on each section to graduate.

| Code                                                               | Title                            | Hours     |
|--------------------------------------------------------------------|----------------------------------|-----------|
| <b>Core Courses</b>                                                |                                  |           |
| Complete all of the following courses:                             |                                  |           |
| ACTG 610                                                           | Accounting & Data Analytics      | 3         |
| ACTG 615                                                           | Accounting Theory                | 3         |
| ACTG 616                                                           | Advanced Financial Topics        | 3         |
| ACTG 631                                                           | Advanced Tax                     | 3         |
| ACTG 641                                                           | Current Topics in Assurance      | 3         |
| <b>Electives</b>                                                   |                                  |           |
| Complete 15 credits of elective courses. Possible courses include: |                                  | 15        |
| ACTG 632                                                           | Advanced Income Tax Practicum    |           |
| ACTG 675                                                           | Contemporary Accounting Problems |           |
| ACTG 694                                                           | Seminar                          |           |
| ACTG 698                                                           | Internship                       |           |
| MBA                                                                | Various MBA Electives            |           |
| <b>Total Hours</b>                                                 |                                  | <b>30</b> |

## Business Analytics M.S.

The Master of Science in Business Analytics is a 32-credit graduate program that prepares students to make data-driven decisions in today's analytics-driven business landscape. The program is offered online and accommodates working professionals and full-time students.

The curriculum integrates technical expertise with essential business skills, equipping students to manage, analyze, and communicate complex data in practical business contexts. Courses provide hands-on experience with data tools and techniques while fostering critical thinking, strategic insight, and effective communication.

Core areas of study include:

- Business intelligence and big data analytics
- Business statistics and statistical computing
- Data mining and data management
- Communicating insights and supporting decision-making

Graduates of the program are well-prepared for high-impact roles in data analytics, business intelligence, and strategic decision support across industries.

## General Graduate Program Requirements

Graduate School policies and standards can be found on the Graduate School Policies page (p. 440).

The minimum GPA for any graduate program is 3.0. Individual programs may require more than a 3.0 to remain in good standing.

The minimum grade for a course to be accepted toward any master's or doctoral requirement is C. The minimum grade for a course to be accepted toward a certificate program is B-. Individual programs may require higher grades for specific courses.

## Online Program Option

This program may be completed in an online format (<https://catalog.umd.edu/online-programs/definitions/>). Students interested in pursuing an online degree or certificate program are strongly encouraged to contact the offering department to discuss specific program and course modalities (<https://catalog.umd.edu/online-programs/definitions/>) and create a plan of study with an academic advisor. The course requirements listed below may not be consistently offered via online delivery.

## Master of Science - Business Analytics Course Requirements

| Code                                                                    | Title                                       | Hours     |
|-------------------------------------------------------------------------|---------------------------------------------|-----------|
| <b>Required Courses</b>                                                 |                                             |           |
| Complete all of the following courses:                                  |                                             |           |
| BGEN 516                                                                | Applied Business Statistics                 | 3         |
| BGEN 526                                                                | Graduate Introduction to Business Analytics | 3         |
| BGEN 631                                                                | Introduction to SQL                         | 1         |
| BGEN 632                                                                | Graduate Introduction to Python             | 2         |
| BMIS 601                                                                | Business Intelligence                       | 3         |
| BMIS 625                                                                | Mining of Text & Unstructured Data          | 2         |
| BMKT 582                                                                | Telling Stories with Data                   | 3         |
| BMKT 670                                                                | Applied Data Analytics                      | 3         |
| BMKT 673                                                                | Advanced Applied Modeling                   | 3         |
| BMKT 680                                                                | Big Data and Innovation                     | 2         |
| BMKT 689                                                                | MSBA Capstone Prep                          | 1         |
| BMKT 699                                                                | Capstone                                    | 3         |
| <b>Elective</b>                                                         |                                             |           |
| Complete 3 additional credits chosen in consultation with your advisor. |                                             | 3         |
| <b>Total Hours</b>                                                      |                                             | <b>32</b> |

## Cybersecurity Management Graduate Certificate

The Cybersecurity Management Graduate Certificate is designed to provide students with the technical and management skills necessary to work in the cybersecurity field.

Students will use cybersecurity skills as a consultant or as an employee helping an organization to develop and implement a cybersecurity program or respond to security incidents. Students will explore a variety of knowledge areas of cybersecurity management and apply that knowledge in a project in the capstone course.

The curriculum is based on the Core Knowledge Units developed by the National Security Agency (NSA) and the Department of Homeland Security (DHS). Students will gain skills in programming, networking technology & protocols, databases & analytics, probability & statistics, policy, legal, ethics, and compliance, cybersecurity fundamentals & practices, and cybersecurity management & planning.

## General Graduate Program Requirements

Graduate School policies and standards can be found on the Graduate School Policies page (p. 440).

The minimum GPA for any graduate program is 3.0. Individual programs may require more than a 3.0 to remain in good standing.

The minimum grade for a course to be accepted toward any master's or doctoral requirement is C. The minimum grade for a course to be accepted toward a certificate program is B-. Individual programs may require higher grades for specific courses.

## Online Program Option

This program may be completed in an online format (<https://catalog.umd.edu/online-programs/definitions/>). Students interested in pursuing an online degree or certificate program are strongly encouraged to contact the offering department to discuss specific program and course modalities (<https://catalog.umd.edu/online-programs/definitions/>) and create a plan of study with an academic advisor. The course requirements listed below may not be consistently offered via online delivery.

## Graduate Certificate - Cybersecurity Management Course Requirements

| Code                                                  | Title                                             | Hours    |
|-------------------------------------------------------|---------------------------------------------------|----------|
| <b>Complete all of the following courses:</b>         |                                                   |          |
| BMIS 501                                              | Graduate Fundamentals of Networks & Cybersecurity | 3        |
| BMIS 502                                              | Graduate Cybersecurity Management                 | 3        |
| <b>Complete six credits of the following courses:</b> |                                                   | <b>6</b> |
| BGEN 516                                              | Applied Business Statistics                       |          |
| BGEN 526                                              | Graduate Introduction to Business Analytics       |          |
| BMGT 650                                              | Business Ethics                                   |          |
| BMIS 465                                              | Introduction to Real-time Data Analytics          |          |
| BMIS 478                                              | Digital Entrepreneurship                          |          |
| BMIS 575                                              | Fundamentals of Consulting                        |          |
| BMIS 601                                              | Business Intelligence                             |          |
| BMIS 625                                              | Mining of Text & Unstructured Data                |          |
| BMIS 650                                              | Quantitative Analysis                             |          |
| BMIS 674                                              | Management of Information Systems                 |          |
| BMKT 582                                              | Telling Stories with Data                         |          |
| BMKT 670                                              | Applied Data Analytics                            |          |

|                    |                         |
|--------------------|-------------------------|
| BMKT 680           | Big Data and Innovation |
| CSCI 444           | Data Visualization      |
| CSCI 547           | Machine Learning        |
| CSCI 558           | Intro to Bioinformatics |
| MBA 655            | Technology Seminar      |
| <b>Total Hours</b> | <b>12</b>               |

## Entertainment Management Graduate Certificate

The Graduate Certificate in Entertainment Management provides students with the business knowledge and industry insight needed to succeed in the entertainment industry's current landscape. This program explores the challenges and opportunities within music, sports, film, live events, and digital media, equipping students with skills in marketing, finance, venue operations, and strategic planning specific to the entertainment sector.

Designed for working professionals and graduate students across disciplines, the certificate offers practical applied learning experiences and opportunities to engage with industry professionals through guest lectures, case studies, and experiential projects.

The certificate can be completed as a standalone credential or as part of another graduate degree program.

## General Graduate Program Requirements

Graduate School policies and standards can be found on the Graduate School Policies page (p. 440).

The minimum GPA for any graduate program is 3.0. Individual programs may require more than a 3.0 to remain in good standing.

The minimum grade for a course to be accepted toward any master's or doctoral requirement is C. The minimum grade for a course to be accepted toward a certificate program is B-. Individual programs may require higher grades for specific courses.

## Graduate Certificate - Entertainment Management Course Requirements

| Code                    | Title                                             | Hours     |
|-------------------------|---------------------------------------------------|-----------|
| <b>Required Courses</b> |                                                   |           |
| BMGT 401                | Entertainment and Sports Event Management         | 3         |
| BMGT 402                | Principles of Entertainment & Sport Business      | 3         |
| BMGT 403                | Advanced Topics in Entertainment & Sport Business | 3         |
| MBA 694                 | Seminar                                           | 3         |
| <b>Total Hours</b>      |                                                   | <b>12</b> |

## Entrepreneurship Graduate Certificate

The Graduate Certificate in Entrepreneurship equips students with the knowledge, tools, and mindset needed to launch new ventures, drive

innovation within existing organizations, and create sustainable value in a rapidly changing economy. Designed for aspiring entrepreneurs and business leaders, the program blends theory with practical application to foster creative problem-solving and strategic thinking.

Students will explore the entrepreneurial journey—from idea generation and market validation to business planning, financing, and growth strategies. Coursework emphasizes startup principles, opportunity recognition, and risk management while incorporating real-world case studies and hands-on projects.

The certificate can be completed as a standalone credential or as part of another graduate degree program.

## General Graduate Program Requirements

Graduate School policies and standards can be found on the Graduate School Policies page (p. 440).

The minimum GPA for any graduate program is 3.0. Individual programs may require more than a 3.0 to remain in good standing.

The minimum grade for a course to be accepted toward any master's or doctoral requirement is C. The minimum grade for a course to be accepted toward a certificate program is B-. Individual programs may require higher grades for specific courses.

## Graduate Certificate - Entrepreneurship Course Requirements

| Code                                                | Title                                                                 | Hours     |
|-----------------------------------------------------|-----------------------------------------------------------------------|-----------|
| <b>Required Courses</b>                             |                                                                       |           |
| Complete all of the following courses:              |                                                                       |           |
| MBA 694                                             | Seminar (Entrepreneurship)                                            | 2         |
| MBA 694                                             | Seminar (Real World Entrepreneurship)                                 | 2         |
| MBA 694                                             | Seminar (Venture Launch)                                              | 1         |
| MBA 692                                             | Independent Study (Self-Designed Capstone or Leveraging Public Funds) | 1         |
| or MBA 694                                          | Seminar                                                               |           |
| <b>Electives</b>                                    |                                                                       |           |
| Complete 6 credits from the following courses:      |                                                                       |           |
| BFIN 651                                            | Cornerstone of Graduate Finance                                       |           |
| BMGT 640                                            | Organizational Behavior                                               |           |
| BMGT 650                                            | Business Ethics                                                       |           |
| MBA 645                                             | Interpersonal Perspectives                                            |           |
| MBA 692                                             | Independent Study                                                     |           |
| MBA 694                                             | Seminar                                                               |           |
| MBA 698                                             | Internship                                                            |           |
| Other elective as approved by the Graduate Director |                                                                       |           |
| <b>Total Hours</b>                                  |                                                                       | <b>12</b> |

## Logistics & Supply Chain Management Graduate Certificate

The Logistics and Supply Chain Management (LSCM) certificate equips students with essential skills for mission-critical roles across various industries, including e-commerce, manufacturing, and retail. This program prepares students for internships and careers in global logistics, transportation, distribution, procurement, inventory planning,

supply chain analysis, management, and consulting while also fostering awareness of the diverse opportunities within these fields.

## General Graduate Program Requirements

Graduate School policies and standards can be found on the Graduate School Policies page (p. 440).

The minimum GPA for any graduate program is 3.0. Individual programs may require more than a 3.0 to remain in good standing.

The minimum grade for a course to be accepted toward any master's or doctoral requirement is C. The minimum grade for a course to be accepted toward a certificate program is B-. Individual programs may require higher grades for specific courses.

## Online Program Option

This program may be completed in an online format (<https://catalog.umn.edu/online-programs/definitions/>). Students interested in pursuing an online degree or certificate program are strongly encouraged to contact the offering department to discuss specific program and course modalities (<https://catalog.umn.edu/online-programs/definitions/>) and create a plan of study with an academic advisor. The course requirements listed below may not be consistently offered via online delivery.

## Graduate Certificate - Logistics & Supply Chain Management

### Course Requirements

| Code                                   | Title                                         | Hours     |
|----------------------------------------|-----------------------------------------------|-----------|
| Complete all of the following courses: |                                               |           |
| BMGT 567                               | Global Operations and Supply Chain Management | 3         |
| BMKT 550                               | Logistics and Transportation                  | 3         |
| Complete two of the following courses: |                                               |           |
| BMGT 410                               | Sustainable Business Practices                | 6         |
| BMIS 478                               | Digital Entrepreneurship                      |           |
| MBA 694                                | Seminar                                       |           |
| <b>Total Hours</b>                     |                                               | <b>12</b> |

## Phyllis J. Washington College of Education Graduate Programs

The Phyllis J. Washington College of Education (<http://www.coehs.umn.edu/default.php>) is comprised of three academic departments:

- Counseling
- Educational Leadership
- Teaching and Learning

The Phyllis J. Washington College of Education is also home to the University of Montana Safe Schools Center, National Natives Children's Trauma Center (NNCTC), The Learning and Belong (LAB) Preschool, and Montana Digital Academy (MTDA).

The Phyllis J. Washington College of Education is committed to cultivating professional practices that empower human potential. As a community, we embrace knowledge, respect human dignity, and uphold

ethical values. Through collaboration, we strive to enhance society's physical, emotional, and intellectual well-being by generating and sharing knowledge while preparing future counselors, teachers, and educational leaders for success.

The College of Education coordinates the University of Montana Professional Education Unit, a unit comprised of initial teacher preparation at the elementary and secondary levels and the advanced preparation of teachers, educational leaders, and school counselors. The Departments of Teaching and Learning, Educational Leadership, and Counseling prepare professionals for careers through bachelor, master's, specialist, and doctoral degree programs. The teaching and administrative licensure programs in the Phyllis J. Washington College of Education at the University of Montana are accredited by the Council for the Accreditation of Educator Preparation (CAEP) (<http://www.caepnet.org/>). The counseling master's and doctoral programs are accredited by the Council for Accreditation of Counseling and Related Educational Programs (CACREP). The teacher, administrator, and school counseling programs are also accredited by the Montana Board of Public Education.

- Counseling (p. 465)
  - Counselor Education and Supervision Ph.D. (p. 465)
  - Counselor Education and Supervision Ed.D. (p. 466)
  - Counselor Education Ed.S. (p. 466)
  - Counselor Education M.A. - Mental Health Counseling (p. 466)
  - Counselor Education M.A. - School Counseling (p. 467)
  - Trauma Studies Graduate Certificate (p. 468)
- Educational Leadership (p. 468)
  - Educational Leadership Ed.D. (p. 468)
  - Educational Leadership Ed.S. (p. 469)
  - Educational Leadership M.Ed. (p. 469)
  - International Educational Leadership M.Ed. (p. 470)
  - International Educational Leadership Ph.D. (p. 471)
  - Principal Leadership Graduate Certificate (p. 471)
  - Superintendent Leadership Graduate Certificate (p. 472)
- Teaching and Learning (p. 472)
  - Teaching and Learning Ed.D. (p. 474)
  - Teaching and Learning M.Ed. - Curriculum Studies (p. 474)
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  - Education M.A. (p. 477)
  - Early Childhood Education Graduate Certificate (p. 478)
  - Environmental Education Graduate Certificate (p. 478)
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  - Secondary/K12 Teaching Graduate Certificate (p. 480)
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  - Teacher Librarian Studies Graduate Certificate (p. 481)

## Counseling

The Department of Counseling educates students for employment in school and community mental health and human service settings. At the doctoral level, students are trained as counselor educators in faculty positions in higher education and in leadership positions in the counseling profession. Counselors are practitioners, consultants, and coordinators who assist in problem solving, decision-making, and personal growth and development in individual, family, school, and/or career issues. Counselors receive training in the eight core areas identified by the Council for Accreditation of Counseling and Related Educational Programs:

- Professional counseling orientation and ethical practice,
- Social and cultural identities and experiences,
- Lifespan development,
- Career development,
- Counseling practice and relationships,
- Group counseling and group work,
- Assessment and diagnostic processes, and
- Research and program evaluation.

At the masters level, we offer a School Counseling M.A. and a Clinical Mental Health Counseling M.A. Both options require additional specialty courses and comprehensive written and oral examinations focused on the student's career track. The more specialist and doctoral degrees develop depth, supervisory, pedagogy, research, and leadership skills in these areas.

The M.A., Ed.S., Ed.D., and Ph.D. are offered in Counselor Education. The M.A. and Ph.D. programs are accredited by CACREP. The School Counseling M.A. program is also accredited by the Montana Board of Public Education.

### Admission to Counseling

Applicants for this program should contact the Department of Counseling for specific admission information. Applications are accepted once per year and admission is competitive.

### Certification Requirements

The Counselor Education M.A. concentration in School Counseling leads to Montana Class 6 Specialist licensure with a K-12 school counseling endorsement. The Counselor Education M.A. concentration in Clinical Mental Health Counseling prepares graduates for licensure candidacy as Licensed Clinical Professional Counselors (LCPC) in the state of Montana and fulfills at least 700 hours of the clinical hour requirement toward licensure.

- Counselor Education and Supervision Ph.D. (p. 465)
- Counselor Education and Supervision Ed.D. (p. 466)
- Counselor Education Ed.S. (p. 466)
- Counselor Education M.A. - Mental Health Counseling (p. 466)
- Counselor Education M.A. - School Counseling (p. 467)
- Trauma Studies Graduate Certificate (p. 468)

## Counselor Education and Supervision Ph.D.

### General Graduate Program Requirements

Graduate School policies and standards can be found on the Graduate School Policies page (p. 440).

The minimum GPA for any graduate program is 3.0. Individual programs may require more than a 3.0 to remain in good standing.

The minimum grade for a course to be accepted toward any master's or doctoral requirement is C. The minimum grade for a course to be accepted toward a certificate program is B-. Individual programs may require higher grades for specific courses.

### Doctor of Philosophy - Counselor Education and Supervision

#### Course Requirements

| Code                                                                                | Title                                                                                            | Hours     |
|-------------------------------------------------------------------------------------|--------------------------------------------------------------------------------------------------|-----------|
| <b>Core Courses</b>                                                                 |                                                                                                  |           |
| Complete all of the following courses:                                              |                                                                                                  |           |
| COUN 620                                                                            | Advanced Counseling Theories                                                                     | 3         |
| COUN 630                                                                            | Doctoral Clinical Practice                                                                       | 3         |
| COUN 635                                                                            | Clinical Supervision Practice                                                                    | 3         |
| COUN 640                                                                            | Professional Leadership and Scholarly Development                                                | 3         |
| or EDLD 550                                                                         | Foundations of Educational Leadership                                                            |           |
| COUN 650                                                                            | Pedagogy and the Professorate                                                                    | 3         |
| COUN 674                                                                            | Qualitative Research I                                                                           | 3         |
| COUN 675                                                                            | Qualitative Research II                                                                          | 3         |
| COUN 685                                                                            | Methods in Counselor Education and Professional Counseling                                       | 6-9       |
| Elective in an area of scholarly interest chosen in consultation with your advisor. |                                                                                                  | 3         |
| <b>Quantitative Research <sup>1</sup></b>                                           |                                                                                                  |           |
| Complete one of the following sequences:                                            |                                                                                                  | 6-7       |
| EDLD 618 & EDLD 625                                                                 | Educational Statistics and Quantitative Research                                                 |           |
| PSYX 520 & PSYX 521 & PSYX 523                                                      | Advanced Psychological Statistics I and Advanced Psychological Statistics II and Research Design |           |
| <b>Comprehensive Exam and Dissertation</b>                                          |                                                                                                  |           |
| COUN 670                                                                            | Doctoral Comprehensive Exam                                                                      | 2         |
| COUN 699                                                                            | Thesis/Dissertation                                                                              | 3-14      |
| <b>Total Hours</b>                                                                  |                                                                                                  | <b>48</b> |

<sup>1</sup> Students discuss both options with advisors, and recommendations are made based on student goals and interests.



## Counselor Education and Supervision Ed.D.

### General Graduate Program Requirements

Graduate School policies and standards can be found on the Graduate School Policies page (p. 440).

The minimum GPA for any graduate program is 3.0. Individual programs may require more than a 3.0 to remain in good standing.

The minimum grade for a course to be accepted toward any master's or doctoral requirement is C. The minimum grade for a course to be accepted toward a certificate program is B-. Individual programs may require higher grades for specific courses.

## Doctor of Education - Counselor Education and Supervision

### Course Requirements

| Code                                          | Title                                                                        | Hours     |
|-----------------------------------------------|------------------------------------------------------------------------------|-----------|
| <b>Core Courses</b>                           |                                                                              |           |
| Complete all of the following courses:        |                                                                              |           |
| COUN 635                                      | Clinical Supervision Practice                                                | 3         |
| COUN 640                                      | Professional Leadership and Scholarly Development                            | 3         |
| or EDLD 550                                   | Foundations of Educational Leadership                                        |           |
| COUN 650                                      | Pedagogy and the Professorate                                                | 3         |
| COUN 670                                      | Doctoral Comprehensive Exam                                                  | 2         |
| COUN 674                                      | Qualitative Research I                                                       | 3         |
| COUN 675                                      | Qualitative Research II                                                      | 3         |
| COUN 685                                      | Methods in Counselor Education and Professional Counseling                   | 6-9       |
| COUN 699                                      | Thesis/Dissertation                                                          | 3-14      |
| PSYX 520 & PSYX 521                           | Advanced Psychological Statistics I and Advanced Psychological Statistics II | 3-7       |
| or EDLD 618                                   | Educational Statistics                                                       |           |
| EDLD 625                                      | Quantitative Research                                                        | 3         |
| or PSYX 523                                   | Research Design                                                              |           |
| <b>Elective Sequence</b>                      |                                                                              |           |
| Complete a minimum of 9 cr Elective Sequences |                                                                              | 9         |
| <b>Total Hours</b>                            |                                                                              | <b>45</b> |

## Counselor Education Ed.S.

### General Graduate Program Requirements

Graduate School policies and standards can be found on the Graduate School Policies page (p. 440).

The minimum GPA for any graduate program is 3.0. Individual programs may require more than a 3.0 to remain in good standing.

The minimum grade for a course to be accepted toward any master's or doctoral requirement is C. The minimum grade for a course to be accepted toward a certificate program is B-. Individual programs may require higher grades for specific courses.

## Education Specialist - Counselor Education

- Formal programs of study for the Education Specialist (Ed.S.) degree in Counselor Education are designed in cooperation with an assigned advisor.
- Regardless of the number of credits in the student's previous master's degree, the Ed.S. requires an additional 18 semester credits of study. The total number of credits, including the previous master's degree, must total at least 64.
- Students must complete a program of study that closely mirrors one of our nationally accredited master's degrees in School or Clinical Mental Health Counseling.
- The Ed.S. requires a supervised internship in the specialty area in which the student wishes to qualify for licensure. The supervised internship must total 6 credits, which is equivalent to 600 supervised hours. Attendance in internship class (COUN 585) is mandatory.
- Students must complete a final project of 1-4 credits. This might be a literature review, a pilot study, or a project such as a new program in a school or evaluating a mental health treatment approach.

### Course Requirements

| Code                                                                                                          | Title                               | Hours     |
|---------------------------------------------------------------------------------------------------------------|-------------------------------------|-----------|
| <b>Supervised Internship</b>                                                                                  |                                     |           |
| Complete the following course:                                                                                |                                     |           |
| COUN 585                                                                                                      | Counseling Methods: School & Agency | 6         |
| <b>Professional Project</b>                                                                                   |                                     |           |
| Complete the following course:                                                                                |                                     |           |
| COUN 592                                                                                                      | Independent Study                   | 1-6       |
| <b>Graduate Electives</b>                                                                                     |                                     |           |
| Complete 8-11 credits of 500- and 600-level Counseling (COUN) courses chosen in consultation with an advisor. |                                     | 8-11      |
| <b>Total Hours</b>                                                                                            |                                     | <b>18</b> |

## Counselor Education M.A. - Mental Health Counseling

### General Graduate Program Requirements

Graduate School policies and standards can be found on the Graduate School Policies page (p. 440).

The minimum GPA for any graduate program is 3.0. Individual programs may require more than a 3.0 to remain in good standing.

The minimum grade for a course to be accepted toward any master's or doctoral requirement is C. The minimum grade for a course to be accepted toward a certificate program is B-. Individual programs may require higher grades for specific courses.

## Master of Arts - Counselor Education; Mental Health Counseling Concentration

The Department of Counseling does not require a specific undergraduate degree for admission. However, the following undergraduate courses are recommended and may be completed prior to enrollment or during the first year of graduate study. These can be completed for credit/no credit rather than for letter grades.

- Developmental Psychology or equivalent.
- Abnormal Psychology.
- Basic statistics and/or educational measurement.

## Course Requirements

| Code                                                           | Title                                                                                                                | Hours     |
|----------------------------------------------------------------|----------------------------------------------------------------------------------------------------------------------|-----------|
| <b>Core Courses</b>                                            |                                                                                                                      |           |
| Complete all of the following courses:                         |                                                                                                                      |           |
| COUN 510                                                       | Introduction to Counseling                                                                                           | 1         |
| COUN 511                                                       | Theories & Techniques of Counseling                                                                                  | 3         |
| COUN 512                                                       | Counseling Fundamentals                                                                                              | 3         |
| COUN 520                                                       | Group Counseling & Guidance                                                                                          | 3         |
| COUN 530                                                       | Applied Counseling Skills                                                                                            | 3         |
| COUN 540                                                       | Individual Appraisal                                                                                                 | 3         |
| COUN 545                                                       | Counseling Research & Program Evaluation                                                                             | 3         |
| COUN 550                                                       | Introduction to Family Counseling                                                                                    | 3         |
| COUN 555                                                       | Risk & Resiliency                                                                                                    | 3         |
| COUN 560                                                       | Lifespan Developmental Counseling                                                                                    | 3         |
| COUN 570                                                       | Career Counseling Theory & Technology                                                                                | 3         |
| COUN 575                                                       | Multicultural Counseling                                                                                             | 3         |
| COUN 591                                                       | Special Topics (Addictions Counseling or similar course from another department with advisor approval.) <sup>1</sup> | 3         |
| COUN 589                                                       | Comprehensive Project                                                                                                | 1         |
| COUN 591                                                       | Special Topics (Psychopharmacology or similar course from another department with advisor approval.)                 | 3         |
| COUN 610                                                       | Professional Ethics and Orientation                                                                                  | 3         |
| <b>Mental Health Counseling Concentration Required Courses</b> |                                                                                                                      |           |
| Complete all of the following courses:                         |                                                                                                                      |           |
| COUN 585                                                       | Counseling Methods: School & Agency (Internship)                                                                     | 6         |
| COUN 615                                                       | Diagnosis/Treatment Planning in Counseling                                                                           | 3         |
| COUN 625                                                       | Introduction to Mental Health Systems                                                                                | 3         |
| <b>Electives</b>                                               |                                                                                                                      |           |
| Complete 6 credits of graduate-level electives. <sup>1</sup>   |                                                                                                                      | 6         |
| <b>Total Hours</b>                                             |                                                                                                                      | <b>62</b> |

<sup>1</sup> When applicable to our course load, the Department will offer counseling electives focused on a particular area of study. Students intending to pursue LAC or LMFT must take COUN 550 before enrolling in advanced elective courses. Students may also consult with their faculty advisor for additional graduate course offering appropriate to their major. Students may wish to complete additional internship credits as part of their elective requirement.

## Counselor Education M.A. - School Counseling

### General Graduate Program Requirements

Graduate School policies and standards can be found on the Graduate School Policies page (p. 440).

The minimum GPA for any graduate program is 3.0. Individual programs may require more than a 3.0 to remain in good standing.

The minimum grade for a course to be accepted toward any master's or doctoral requirement is C. The minimum grade for a course to be accepted toward a certificate program is B-. Individual programs may require higher grades for specific courses.

## Online Program Option

This program may be completed in an online format (<https://catalog.umn.edu/online-programs/definitions/>). Students interested in pursuing an online degree or certificate program are strongly encouraged to contact the offering department to discuss specific program and course modalities (<https://catalog.umn.edu/online-programs/definitions/>) and create a plan of study with an academic advisor. The course requirements listed below may not be consistently offered via online delivery.

## Master of Arts - Counselor Education; School Counseling Concentration

### Course Requirements

| Code                                                         | Title                                                                                                    | Hours     |
|--------------------------------------------------------------|----------------------------------------------------------------------------------------------------------|-----------|
| <b>Core Courses</b>                                          |                                                                                                          |           |
| Complete all of the following courses:                       |                                                                                                          |           |
| COUN 511                                                     | Theories & Techniques of Counseling                                                                      | 3         |
| COUN 512                                                     | Counseling Fundamentals (Additional sections of existing courses will be specific to school counseling.) | 3         |
| COUN 520                                                     | Group Counseling & Guidance                                                                              | 3         |
| COUN 530                                                     | Applied Counseling Skills                                                                                | 3         |
| COUN 545                                                     | Counseling Research & Program Evaluation                                                                 | 3         |
| COUN 550                                                     | Introduction to Family Counseling                                                                        | 3         |
| COUN 555                                                     | Risk & Resiliency                                                                                        | 3         |
| COUN 560                                                     | Lifespan Developmental Counseling                                                                        | 3         |
| COUN 565                                                     | School Counseling, Program Development, & Supervision                                                    | 3         |
| COUN 566                                                     | Counseling Children & Adolescents                                                                        | 3         |
| COUN 570                                                     | Career Counseling Theory & Technology                                                                    | 3         |
| COUN 575                                                     | Multicultural Counseling                                                                                 | 3         |
| COUN 585                                                     | Counseling Methods: School & Agency                                                                      | 6         |
| COUN 591                                                     | Special Topics (Addictions )                                                                             | 3         |
| COUN 591                                                     | Special Topics (Child & Adolescent Psychopathology & Pharmacology)                                       | 3         |
| COUN 591                                                     | Special Topics (Advanced School Counseling & Exceptionalities)                                           | 3         |
| COUN 610                                                     | Professional Ethics and Orientation                                                                      | 3         |
| <b>Electives</b>                                             |                                                                                                          |           |
| 6 credits of graduate level electives (consult with advisor) |                                                                                                          | 6         |
| <b>Total Hours</b>                                           |                                                                                                          | <b>60</b> |

# Trauma Studies Graduate Certificate

## General Graduate Program Requirements

Graduate School policies and standards can be found on the Graduate School Policies page (p. 440).

The minimum GPA for any graduate program is 3.0. Individual programs may require more than a 3.0 to remain in good standing.

The minimum grade for a course to be accepted toward any master's or doctoral requirement is C. The minimum grade for a course to be accepted toward a certificate program is B-. Individual programs may require higher grades for specific courses.

## Graduate Certificate - Trauma Studies

### Course Requirements

| Code                                          | Title                                                                  | Hours     |
|-----------------------------------------------|------------------------------------------------------------------------|-----------|
| <b>Core Courses</b>                           |                                                                        |           |
| Complete all of the following courses:        |                                                                        |           |
| COUN 591                                      | Special Topics (Introduction to Trauma Studies)                        | 2         |
| COUN 592                                      | Independent Study                                                      | 1         |
| <b>Electives</b>                              |                                                                        |           |
| Complete 12 credits of the following courses: |                                                                        | 12        |
| COUN 475                                      | Forgiveness & Reconciliation                                           |           |
| COUN 495                                      | Special Topics (Addictions )                                           |           |
| COUN 550                                      | Introduction to Family Counseling                                      |           |
| COUN 555                                      | Risk & Resiliency                                                      |           |
| COUN 560                                      | Lifespan Developmental Counseling                                      |           |
| COUN 566                                      | Counseling Children & Adolescents                                      |           |
| COUN 575                                      | Multicultural Counseling                                               |           |
| COUN 591                                      | Special Topics (Psychopharmacology )                                   |           |
| COUN 625                                      | Introduction to Mental Health Systems                                  |           |
| EDEC 515                                      | Educational Professionals Working With Families Experiencing Adversity |           |
| EDEC 530                                      | Social and Emotional Development in Young Children                     |           |
| EDSP 461                                      | Positive Behavior Supports                                             |           |
| EDU 514                                       | Education Across Cultures                                              |           |
| EDU 518                                       | Inclusion and Collaboration                                            |           |
| EDU 598                                       | Internship (K-12 School Safety )                                       |           |
| PSYX 631                                      | Intervention                                                           |           |
| SOCI 422                                      | Sociology of Punishment                                                |           |
| SOCI 423                                      | Sociology of Corrections                                               |           |
| SOCI 475                                      | Work, Labor, and the Criminal Justice System                           |           |
| SOCI 491                                      | Special Topics (Sociology of Domestic Violence)                        |           |
| S W 423                                       | Addiction Studies                                                      |           |
| S W 427                                       | Motivational Interviewing                                              |           |
| S W 591                                       | Special Topics (Introduction to Trauma-Focused Psychotherapy)          |           |
| <b>Total Hours</b>                            |                                                                        | <b>15</b> |

## Educational Leadership

The Department of Educational Leadership empowers individuals to challenge the future by preparing professionals for leadership based on research of best practices, helping individuals to see a better future, developing a future-focused role for leaders, preparing leaders to invent their future and the future of others, influencing individuals to realize what could be, preparing people for an uncertain world, preparing leaders to realize a better future, and applying theory to practice. The Educational Leadership knowledge base emphasizes the realities of the workplace, blending practical tasks with the conceptual models of effective leadership.

### Programs

The department offers an M.Ed., Ed.S., and Ed.D. in Educational Leadership along with an M.Ed. and Ph.D. in International Educational Leadership. For those seeking K-12 administrative licensure, the program offers graduate-level certificates in Principal Leadership and Superintendent Leadership. The M.Ed. and graduate certificate programs are accredited by the Council for the Accreditation of Educator Preparation (CAEP) and The Montana Board of Public Education (BPE).

### Admission to Educational Leadership

Applicants should contact the Department of Educational Leadership for admission information. Applications are accepted on a rolling basis with reviews of applications completed once a month.

### Certification Requirements

The Master of Education in Educational Leadership and the Certificates in Principal Leadership and Superintendent Leadership lead to a Montana Class 3 Administrative Licensure with either a K-12 Principal or a K-12 Superintendent endorsement. Please note that in addition to the coursework and degree requirements, the State of Montana also requires field-based hours, licensed teaching experience for the principal endorsement, and licensed administrative experience for the superintendent endorsement.

- Educational Leadership Ed.D. (p. 468)
- Educational Leadership Ed.S. (p. 469)
- Educational Leadership M.Ed. (p. 469)
- International Educational Leadership M.Ed. (p. 470)
- International Educational Leadership Ph.D. (p. 471)
- Principal Leadership Graduate Certificate (p. 471)
- Superintendent Leadership Graduate Certificate (p. 472)

## Educational Leadership Ed.D.

### General Graduate Program Requirements

Graduate School policies and standards can be found on the Graduate School Policies page (p. 440).

The minimum GPA for any graduate program is 3.0. Individual programs may require more than a 3.0 to remain in good standing.

The minimum grade for a course to be accepted toward any master's or doctoral requirement is C. The minimum grade for a course to be accepted toward a certificate program is B-. Individual programs may require higher grades for specific courses.

## Doctor of Education - Educational Leadership

- A minimum of 90 academic credits and one credit for the comprehensive exam is required for the Doctor of Education. Credits from an approved Master's degree and/or Education Specialist Degree (Ed.S.) as well as post-master's graduate credits may be applied toward the Ed.D. upon transcript review by the department. The major field of concentration for the Ed.D. is in Educational Leadership with supporting specializations in Curriculum Leadership, Higher Education, or Technology Leadership.

### Course Requirements

| Code                                                             | Title                                        | Hours     |
|------------------------------------------------------------------|----------------------------------------------|-----------|
| <b>Foundation Courses</b>                                        |                                              |           |
| Complete three of the following courses:                         |                                              | 9         |
| EDLD 502                                                         | Philosophy of Education                      |           |
| EDLD 550                                                         | Foundations of Educational Leadership        |           |
| EDLD 551                                                         | Foundations of Curriculum Leadership         |           |
| EDLD 567                                                         | K-12 Leadership                              |           |
| EDLD 568                                                         | K-12 Curriculum                              |           |
| <b>Research Courses</b>                                          |                                              |           |
| Complete all of the following courses:                           |                                              |           |
| EDLD 486                                                         | Statistical Proc in Education                | 3         |
| or EDLD 519                                                      | Measurement and Analysis of Educational Data |           |
| EDLD 520                                                         | Educational Research                         | 3         |
| EDLD 618                                                         | Educational Statistics                       | 3         |
| EDLD 620                                                         | Qualitative Research                         | 3         |
| EDLD 625                                                         | Quantitative Research                        | 3         |
| <b>Primary Area Coursework</b>                                   |                                              |           |
| Complete 30 credits of EDLD 500- and 600-level coursework.       |                                              | 30        |
| <b>Supporting Area Coursework</b>                                |                                              |           |
| Complete 20 credits EDLD 500- and 600-level coursework.          |                                              | 20        |
| <b>Electives</b>                                                 |                                              |           |
| Complete 4 additional credits in consultation with your advisor. |                                              | 4         |
| <b>Comprehensive Exam and Dissertation</b>                       |                                              |           |
| EDLD 594                                                         | Seminar (Comprehensive Exam)                 | 1         |
| EDLD 699                                                         | Professional Seminar/Dissertation            | 12        |
| <b>Total Hours</b>                                               |                                              | <b>91</b> |

## Educational Leadership Ed.S.

### General Graduate Program Requirements

Graduate School policies and standards can be found on the Graduate School Policies page (p. 440).

The minimum GPA for any graduate program is 3.0. Individual programs may require more than a 3.0 to remain in good standing.

The minimum grade for a course to be accepted toward any master's or doctoral requirement is C. The minimum grade for a course to be accepted toward a certificate program is B-. Individual programs may require higher grades for specific courses.

## Online Program Option

This program may be completed in an online format (<https://catalog.umd.edu/online-programs/definitions/>). Students interested in pursuing an online degree or certificate program are strongly encouraged to contact the offering department to discuss specific program and course modalities (<https://catalog.umd.edu/online-programs/definitions/>) and create a plan of study with an academic advisor. The course requirements listed below may not be consistently offered via online delivery.

## Education Specialist - Educational Leadership

- The Educational Specialist Degree (Ed.S.) in Educational Leadership is a post-master's-degree credential designed to prepare individuals for senior leadership positions. The degree requires a minimum of 30 hours of coursework beyond the master's degree.
- Upon completion of coursework, or in the final semester of coursework, Ed.S. candidates are required to complete the 1-credit Seminar: Comprehensive Exam (EDLD 594).
- Upon successful completion of comprehensive exams, a professional paper will be required for graduation. Ed.S. candidates should complete 6 credits of EDLD 599, consisting of field level research or literature review conducted by the student.

### Course Requirements

| Code                                                   | Title              | Hours     |
|--------------------------------------------------------|--------------------|-----------|
| <b>Required Coursework</b>                             |                    |           |
| Complete 30 credits of EDLD 500- or 600-level courses. |                    | 30        |
| <b>Comprehensive Exam</b>                              |                    |           |
| EDLD 594                                               | Seminar            | 1         |
| <b>Professional Paper</b>                              |                    |           |
| EDLD 599                                               | Professional Paper | 6         |
| <b>Total Hours</b>                                     |                    | <b>37</b> |

## Educational Leadership M.Ed.

### General Graduate Program Requirements

Graduate School policies and standards can be found on the Graduate School Policies page (p. 440).

The minimum GPA for any graduate program is 3.0. Individual programs may require more than a 3.0 to remain in good standing.

The minimum grade for a course to be accepted toward any master's or doctoral requirement is C. The minimum grade for a course to be accepted toward a certificate program is B-. Individual programs may require higher grades for specific courses.

## Online Program Option

This program may be completed in an online format (<https://catalog.umd.edu/online-programs/definitions/>). Students interested in pursuing an online degree or certificate program are strongly encouraged to contact the offering department to discuss specific program and course modalities (<https://catalog.umd.edu/online-programs/definitions/>) and create a plan of study with an academic advisor. The course requirements listed below may not be consistently offered via online delivery.

## Master of Education - Educational Leadership

- The Master of Education in Educational Leadership is designed to provide the student with a Master of Education (M.Ed.) while preparing them for a Montana Class 3 Administrative License and a K-12 Principal Endorsement. The M.Ed. supports existing educators in the process of becoming administrators and school leaders.
- The 37 required credits are comprised of 12 three-credit courses and one credit for the comprehensive exam which consists of the Master's Program Documentation and Culminating Presentation.
- Students seeking an administrative license in addition to the M.Ed. are required to complete a field experience and have a minimum of three years of licensed K-12 teaching experience.

### Course Requirements

| Code                                          | Title                                                 | Hours     |
|-----------------------------------------------|-------------------------------------------------------|-----------|
| <b>Complete all of the following courses:</b> |                                                       |           |
| EDLD 502                                      | Philosophy of Education                               | 3         |
| EDLD 519                                      | Measurement and Analysis of Educational Data          | 3         |
| EDLD 520                                      | Educational Research                                  | 3         |
| EDLD 550                                      | Foundations of Educational Leadership                 | 3         |
| EDLD 551                                      | Foundations of Curriculum Leadership                  | 3         |
| EDLD 552                                      | Supervision and Evaluation of Public School Educators | 3         |
| EDLD 554                                      | School Law                                            | 3         |
| EDLD 556                                      | Finance of Public Education                           | 3         |
| EDLD 559                                      | School Public Relations-Principals                    | 3         |
| EDLD 567                                      | K-12 Leadership                                       | 3         |
| EDLD 568                                      | K-12 Curriculum                                       | 3         |
| EDLD 583                                      | Strategic Planning For Technology                     | 3         |
| EDLD 594                                      | Seminar (Comp Exam - taken in the final semester)     | 1         |
| <b>Total Hours</b>                            |                                                       | <b>37</b> |

## International Educational Leadership M.Ed.

### General Graduate Program Requirements

Graduate School policies and standards can be found on the Graduate School Policies page (p. 440).

The minimum GPA for any graduate program is 3.0. Individual programs may require more than a 3.0 to remain in good standing.

The minimum grade for a course to be accepted toward any master's or doctoral requirement is C. The minimum grade for a course to be accepted toward a certificate program is B-. Individual programs may require higher grades for specific courses.

### Online Program Option

This program may be completed in an online format (<https://catalog.umn.edu/online-programs/definitions/>). Students interested in pursuing an online degree or certificate program are strongly encouraged to contact the offering department to discuss specific program and course modalities (<https://catalog.umn.edu/online-programs/definitions/>)

and create a plan of study with an academic advisor. The course requirements listed below may not be consistently offered via online delivery.

## Master of Education - International Educational Leadership

To graduate with a Master of Education (M.Ed.) in International Education Leadership, students will need to meet a world language requirement. The world language requirement is met when a student's undergraduate degree transcript indicates the completion of one world language semester courses (equivalent to a 3-credit semester course at UM). The requirement may be met after admission by earning a passing grade in one three-credit college-level world language course at UM, by earning transferable credits in a world language course at another institution, or by demonstrating proficiency. For citizens of non-English speaking countries, this requirement can be fulfilled by meeting their English language proficiency admission requirement.

### Course Requirements

| Code                                                            | Title                                                 | Hours     |
|-----------------------------------------------------------------|-------------------------------------------------------|-----------|
| <b>Required Courses</b>                                         |                                                       |           |
| Complete all of the following courses:                          |                                                       |           |
| EDLD 519                                                        | Measurement and Analysis of Educational Data          | 3         |
| EDLD 520                                                        | Educational Research                                  | 3         |
| EDLD 550                                                        | Foundations of Educational Leadership                 | 3         |
| EDLD 682                                                        | Cross-Cultural Competence                             | 3         |
| EDLD 677                                                        | Globalization in Education                            | 3         |
| EDLD 673                                                        | Leadership/Cultures                                   | 3         |
| <b>Required Option Courses</b>                                  |                                                       |           |
| Complete one of the following options:                          |                                                       | 18        |
| Option One - Complete 6 additional courses (18 credits):        |                                                       |           |
| EDLD 540                                                        | Higher Education Finance                              |           |
| EDLD 542                                                        | The College Student                                   |           |
| EDLD 546                                                        | Federal & State Higher Education Policy               |           |
| EDLD 552                                                        | Supervision and Evaluation of Public School Educators |           |
| EDLD 668                                                        | College & University Administration                   |           |
| EDLD 670                                                        | Best Practices in IPL                                 |           |
| EDLD 672                                                        | International Program Development                     |           |
| EDLD 683                                                        | International Perspectives                            |           |
| Option Two - Complete an internship and two additional courses: |                                                       |           |
| EDLD 598                                                        | Internship ( 12 credits)                              |           |
| And two courses (6 credits):                                    |                                                       |           |
| EDLD 546                                                        | Federal & State Higher Education Policy               |           |
| EDLD 552                                                        | Supervision and Evaluation of Public School Educators |           |
| EDLD 668                                                        | College & University Administration                   |           |
| EDLD 670                                                        | Best Practices in IPL                                 |           |
| EDLD 672                                                        | International Program Development                     |           |
| EDLD 683                                                        | International Perspectives                            |           |
| <b>Total Hours</b>                                              |                                                       | <b>36</b> |



# International Educational Leadership Ph.D.

## General Graduate Program Requirements

Graduate School policies and standards can be found on the Graduate School Policies page (p. 440).

The minimum GPA for any graduate program is 3.0. Individual programs may require more than a 3.0 to remain in good standing.

The minimum grade for a course to be accepted toward any master's or doctoral requirement is C. The minimum grade for a course to be accepted toward a certificate program is B-. Individual programs may require higher grades for specific courses.

## Online Program Option

This program may be completed in an online format (<https://catalog.umn.edu/online-programs/definitions/>). Students interested in pursuing an online degree or certificate program are strongly encouraged to contact the offering department to discuss specific program and course modalities (<https://catalog.umn.edu/online-programs/definitions/>) and create a plan of study with an academic advisor. The course requirements listed below may not be consistently offered via online delivery.

## Doctor of Philosophy - International Educational Leadership

- A minimum of 90 academic credits and one credit for the comprehensive exam is required for the Doctor of Education. Credits from an approved Master's degree and/or Education Specialist Degree (Ed.S.) as well as post-master's graduate credits may be applied toward the Ph.D. upon transcript review by the department. The primary area for all students in the Ph.D. program is International Educational Leadership and the supporting area for this degree is Higher Educational Leadership.
- A minimum of one third of all course work must be taken in the Educational Leadership Department at UM, including one third of the coursework in the primary area
- Students will also need to meet a world language requirement. The world language requirement is met when a student's undergraduate degree transcript indicates the completion of one world language semester courses (equivalent to a 3-credit semester course at UM). The requirement may be met after admission by earning a passing grade in one three-credit college-level world language course at UM, by earning transferable credits in a foreign language course at another institution, or by demonstrating proficiency. For citizens of non-English speaking countries, this requirement can be fulfilled by meeting their English language proficiency admission requirement.
- A comprehensive exam and dissertation are required for this degree.

## Course Requirements

| Code                                     | Title                                 | Hours |
|------------------------------------------|---------------------------------------|-------|
| <b>Foundation Courses</b>                |                                       |       |
| Complete three of the following courses: |                                       | 9     |
| EDLD 502                                 | Philosophy of Education               |       |
| EDLD 550                                 | Foundations of Educational Leadership |       |
| EDLD 551                                 | Foundations of Curriculum Leadership  |       |

|                                                                  |                                     |           |
|------------------------------------------------------------------|-------------------------------------|-----------|
| EDLD 567                                                         | K-12 Leadership                     |           |
| EDLD 568                                                         | K-12 Curriculum                     |           |
| <b>Research Courses</b>                                          |                                     |           |
| Complete all of the following courses:                           |                                     |           |
| EDLD 486                                                         | Statistical Procedures in Education | 3         |
| EDLD 520                                                         | Educational Research                | 3         |
| EDLD 618                                                         | Educational Statistics              | 3         |
| EDLD 620                                                         | Qualitative Research                | 3         |
| EDLD 625                                                         | Quantitative Research               | 3         |
| <b>Primary Area Coursework</b>                                   |                                     |           |
| Complete 30 credits of EDLD 500- and 600-level coursework.       |                                     | 30        |
| <b>Supporting Area Coursework</b>                                |                                     |           |
| Complete 20 credits of EDLD 500- and 600-level coursework.       |                                     | 20        |
| <b>Electives</b>                                                 |                                     |           |
| Complete 4 additional credits in consultation with your advisor. |                                     | 4         |
| <b>Comprehensive Exam and Dissertation</b>                       |                                     |           |
| EDLD 594                                                         | Seminar (Comp Exam)                 | 1         |
| EDLD 699                                                         | Professional Seminar/Dissertation   | 12        |
| <b>Total Hours</b>                                               |                                     | <b>91</b> |

## Principal Leadership Graduate Certificate

### General Graduate Program Requirements

Graduate School policies and standards can be found on the Graduate School Policies page (p. 440).

The minimum GPA for any graduate program is 3.0. Individual programs may require more than a 3.0 to remain in good standing.

The minimum grade for a course to be accepted toward any master's or doctoral requirement is C. The minimum grade for a course to be accepted toward a certificate program is B-. Individual programs may require higher grades for specific courses.

## Online Program Option

This program may be completed in an online format (<https://catalog.umn.edu/online-programs/definitions/>). Students interested in pursuing an online degree or certificate program are strongly encouraged to contact the offering department to discuss specific program and course modalities (<https://catalog.umn.edu/online-programs/definitions/>) and create a plan of study with an academic advisor. The course requirements listed below may not be consistently offered via online delivery.

## Graduate Certificate - Principal Leadership

Students pursuing the Principal Licensure Certificate must hold a Master's Degree in Education. If you do not yet have a master's degree, please visit the Master's Degree in Educational Leadership page ([https://www.umn.edu/education/departments/edlead/programs/med\\_educational\\_leadership.php](https://www.umn.edu/education/departments/edlead/programs/med_educational_leadership.php)) for more information.

In addition to the required coursework, those seeking principal licensure must complete required field experiences and have a minimum of

three years of licensed K-12 teaching experience. Please contact the Department of Educational Leadership (<https://www.umt.edu/education/departments/edlead/default.php>) for additional information.

## Course Requirements

| Code                                          | Title                                                 | Hours     |
|-----------------------------------------------|-------------------------------------------------------|-----------|
| <b>Complete all of the following courses:</b> |                                                       |           |
| EDLD 550                                      | Foundations of Educational Leadership                 | 3         |
| EDLD 552                                      | Supervision and Evaluation of Public School Educators | 3         |
| EDLD 554                                      | School Law                                            | 3         |
| EDLD 556                                      | Finance of Public Education                           | 3         |
| EDLD 559                                      | School Public Relations-Principals                    | 3         |
| EDLD 567                                      | K-12 Leadership                                       | 3         |
| EDLD 568                                      | K-12 Curriculum                                       | 3         |
| EDLD 583                                      | Strategic Planning For Technology                     | 3         |
| <b>Total Hours</b>                            |                                                       | <b>24</b> |

# Superintendent Leadership Graduate Certificate

## General Graduate Program Requirements

Graduate School policies and standards can be found on the Graduate School Policies page (p. 440).

The minimum GPA for any graduate program is 3.0. Individual programs may require more than a 3.0 to remain in good standing.

The minimum grade for a course to be accepted toward any master's or doctoral requirement is C. The minimum grade for a course to be accepted toward a certificate program is B-. Individual programs may require higher grades for specific courses.

## Online Program Option

This program may be completed in an online format (<https://catalog.umt.edu/online-programs/definitions/>). Students interested in pursuing an online degree or certificate program are strongly encouraged to contact the offering department to discuss specific program and course modalities (<https://catalog.umt.edu/online-programs/definitions/>) and create a plan of study with an academic advisor. The course requirements listed below may not be consistently offered via online delivery.

## Graduate Certificate - Superintendent Leadership

- Students pursuing superintendent licensure must have a master's degree or higher in education or educational leadership, three years of experience as a licensed teacher or school counselor, and licensure as a principal. Additionally, one must have a minimum of one year of licensed experience as a principal or participate in a supervised Board of Public Education internship as superintendent. Additional information about these specific licensure requirements can be directed to the Department of Educational Leadership.
- In addition to the required coursework, those seeking superintendent licensure must complete required field experiences. Please contact the Department of Educational Leadership for additional information.

## Course Requirements

| Code                                                                                                                                                                                                      | Title                                                                                                              | Hours        |
|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|--------------------------------------------------------------------------------------------------------------------|--------------|
| <b>Complete the following courses:</b>                                                                                                                                                                    |                                                                                                                    |              |
| EDLD 653                                                                                                                                                                                                  | School Personnel Admin                                                                                             | 3            |
| EDLD 656                                                                                                                                                                                                  | The Economics of Education                                                                                         | 3            |
| EDLD 657                                                                                                                                                                                                  | Facilities Planning/School Bus Function                                                                            | 3            |
| EDLD 658                                                                                                                                                                                                  | School Pub Relations-Superintendents                                                                               | 3            |
| <b>Those who did not complete Montana school law and Montana school finance as part of their principal licensure program will also need the following courses to meet Montana licensure requirements.</b> |                                                                                                                    | <b>0-6</b>   |
| EDLD 554                                                                                                                                                                                                  | School Law (or an OPI- and UM-approved professional development course in Montana school law)                      |              |
| EDLD 556                                                                                                                                                                                                  | Finance of Public Education (or an OPI- and UM-approved professional development course in Montana school finance) |              |
| <b>Total Hours</b>                                                                                                                                                                                        |                                                                                                                    | <b>12-18</b> |

## Teaching and Learning

The Department of Teaching and Learning offers Bachelor of Arts degrees in Elementary Education (K-8) and Early Childhood Education (P-3). The department also offers coursework toward teaching licensure at both the secondary and K-12 levels for students who are earning or have already completed a baccalaureate degree in one of the following state-approved content areas:

- Art
- Biology
- Chemistry
- Earth Science
- Economics
- English
- English as a Second Language
- French
- General Science Broadfield
- Geography
- German
- Government
- Health and Physical Education
- History
- Latin
- Library
- Mathematics
- Music
- Physics
- Psychology
- Reading
- Russian
- Social Studies Broadfield
- Sociology
- Spanish

- Special Education
- Theatre

At the graduate level, the department offers master and doctoral degrees in Teaching and Learning and Education. For more information please see the Department of Teaching and Learning website (<http://coehs.umn.edu/departments/currinst/default.php>).

## Teacher Preparation

### Elementary and Early Childhood Education

Individuals preparing to teach in elementary schools complete a major in Elementary Education (license for grades K-8) or Early Childhood Education (license for grades P-3). Students apply for admission to the Teacher Education Program usually at the end of the sophomore year in order to continue with the education (EDU and EDEC) sequence of courses. All Elementary and Early Childhood Education majors are advised by full-time advisors within the Department of Teaching and Learning.

### Secondary and K-12 licensure

Students preparing to teach at the middle or high school levels (license for grades 5-12) or in K-12 licensure areas will declare a major in the subject area(s) they wish to teach, e.g., English, Mathematics, Music, or any other of the state-approved major content endorsement areas listed previously. They are advised within their major department(s) and, upon admission to the Teacher Education Program, they also are advised within the Department of Teaching and Learning regarding the requirements necessary to earn secondary or K-12 licensure. All secondary and K-12 licensure students seek admission to the Teacher Education Program usually at the end of the sophomore year and complete coursework required for licensure in Teaching and Learning and in their major content area(s).

### Graduate Programs with Initial Teaching Licensure

Individuals who have completed a bachelor's degree may elect to apply to the department's graduate program and complete a graduate-level certificate or the Master of Education in Teaching and Learning with a concentration in Curriculum Studies with licensure to teach.

## Assessment at Application for Student Teaching

Candidates begin planning for student teaching two semesters prior to placement. Candidates are eligible to student teach if they have:

- full admission into the Teacher Education Program;
- a grade of C- or better in all required licensure courses;
- a minimum cumulative GPA of 2.75 (and 2.75 in each field of licensure);
- results of a current national fingerprint-based background check (Candidates with misdemeanors or felonies may be subject to further review by the Clinical Experience Committee.);
- a completed application to student teach and the consent of the Director of Clinical Experiences;
- for Elementary Education majors, students should be enrolled in Level 3 of the program and have completed all coursework in all previous levels;
- for secondary licensure candidates, all methods courses, two thirds of content course work, and approval by departments in the major/minor content area.

Students should consult the Teacher Education Policy Handbook for application deadlines and procedures.

Internships and practica in library, reading, and special education do not substitute for the student teaching semester required for licensure in a subject field.

## Assessment at Program Completion

Through planning and preparation, their established classroom environment, instruction and professional responsibilities, candidates who complete the teacher licensure program at the University of Montana will be prepared to:

1. Design coherent instruction and assessment that demonstrate knowledge of instructional outcomes as well as a deep understanding of students, content, and pedagogy.
2. Establish a classroom environment that fosters positive, respectful relationships and interactions, cooperative endeavors, high expectations, and a love of learning.
3. Deliver authentic instruction that is responsive to students' needs, incorporating critical thinking, student engagement, and meaningful assessment.
4. Carry out responsibilities inherent in the teaching profession, such as communicating with families, participating in a professional community, maintaining accurate records, and engaging in activities and self-reflection that lead to professional growth and development.

## Indian Education for All

It is Montana's constitutional intent that the state's education system will recognize the distinct and unique cultural heritage of American Indians and will be committed in its education goals to the preservation of their cultural heritage. The intent of the legislature as expressed in MCA20-1-501, Indian Education for All, is that every Montanan, whether Indian or non-Indian, be encouraged to learn about the distinct and unique heritage of American Indians in a culturally responsive manner. It is also intended that educational personnel provide means by which school personnel will gain an understanding for the American Indian people.

Candidates preparing for teaching licensure in all endorsement areas are required to complete a minimum of one course in Native American Studies. Throughout their programs of study, candidates must demonstrate:

1. the ability to integrate into their content areas knowledge of the history, cultural heritage, and contemporary status of American Indians and tribes in Montana;
  2. knowledge of how students within different populations, including Montana American Indians, differ in their approaches to learning; and
  3. the ability to create instructional opportunities that are adapted to diverse learners, including situations where concentrated generational poverty has affected student academic achievement.
- Teaching and Learning Ed.D. (p. 474)
  - Teaching and Learning M.Ed. - Curriculum Studies (p. 474)
  - Teaching and Learning M.Ed. - Early Childhood Education (p. 475)
  - Teaching and Learning M.Ed. - Literacy Education (p. 476)
  - Teaching and Learning M.Ed. - Special Education (p. 476)
  - Teaching and Learning M.Ed. - Teacher Librarian Studies (p. 477)
  - Education M.A. (p. 477)
  - Early Childhood Education Graduate Certificate (p. 478)
  - Environmental Education Graduate Certificate (p. 478)
  - Gifted Education Graduate Certificate (p. 479)

- Reading Education Graduate Certificate (p. 479)
- Secondary/K12 Teaching Graduate Certificate (p. 480)
- Special Education Graduate Certificate (p. 480)
- Specialized Interventionists for Montana Schools Graduate Certificate (p. 480)
- Teacher Librarian Studies Graduate Certificate (p. 481)

## Teaching and Learning Ed.D.

### General Graduate Program Requirements

Graduate School policies and standards can be found on the Graduate School Policies page (p. 440).

The minimum GPA for any graduate program is 3.0. Individual programs may require more than a 3.0 to remain in good standing.

The minimum grade for a course to be accepted toward any master's or doctoral requirement is C. The minimum grade for a course to be accepted toward a certificate program is B-. Individual programs may require higher grades for specific courses.

## Doctor of Education - Teaching and Learning

- The Doctor of Education degree (Ed.D.) is designed for veteran teachers, curriculum specialists, administrators and other interested professionals to advance their careers through study of current research methods, educational foundations and policy, effective curriculum and pedagogy, and contemporary educational issues. While work closely with a faculty mentor on their chosen line of inquiry, the degree culminates in the candidate producing their own research. Graduates with Ed.D's take faculty positions in higher education, leadership positions in school districts, or a variety of related positions with education research, development, and service organizations.
- 90 credits minimum, including master's degree and dissertation. This includes a primary area of study (30 credits), a supporting area of study (20 credits), a core of research and foundation courses (38 credits, including a maximum of 10 credits for the dissertation) and electives (2 credits). Students complete a written comprehensive examination in addition to a dissertation.
- The required core can be incorporated within the primary or supporting areas with the exception of EDU 699.

### Course Requirements

| Code                                   | Title                                           | Hours |
|----------------------------------------|-------------------------------------------------|-------|
| <b>Foundations of Education</b>        |                                                 |       |
| Complete all of the following courses: |                                                 |       |
| EDU 502                                | Philosophy of Education                         | 3     |
| EDU 504                                | History of American Education                   | 3     |
| EDU 510                                | Developmental & Learning Sciences               | 3     |
| <b>Technology</b>                      |                                                 |       |
| Complete the following course:         |                                                 |       |
| EDU 515                                | Computer/Technological Application in Education | 3     |
| <b>Research</b>                        |                                                 |       |
| Complete all of the following courses: |                                                 |       |
| EDLD 486                               | Statistical Proc in Education                   | 3     |

|                                                           |                                              |                                              |
|-----------------------------------------------------------|----------------------------------------------|----------------------------------------------|
| or EDLD 519                                               |                                              | Measurement and Analysis of Educational Data |
| EDU 520                                                   | Educational Research                         | 3                                            |
| EDLD 618                                                  | Educational Statistics                       | 3                                            |
| EDLD 620                                                  | Qualitative Research                         | 3                                            |
| EDLD 625                                                  | Quantitative Research                        | 3                                            |
| <b>Primary Area Coursework</b>                            |                                              |                                              |
| Complete 30 credits of EDU 500- and 600-level coursework. |                                              | 30                                           |
| <b>Supporting Area Coursework</b>                         |                                              |                                              |
| Complete 20 credits of EDU 500- and 600-level coursework. |                                              | 20                                           |
| <b>Comprehensive Exam and Dissertation</b>                |                                              |                                              |
| EDU 694                                                   | Advanced Seminar in Curriculum & Instruction | 1                                            |
| EDU 699                                                   | Thesis/Dissertation                          | 10                                           |
| <b>Electives</b>                                          |                                              |                                              |
| Complete 2 additional credits of EDU coursework.          |                                              | 2                                            |
| <b>Total Hours</b>                                        |                                              | <b>90</b>                                    |

## Teaching and Learning M.Ed. - Curriculum Studies

### General Graduate Program Requirements

Graduate School policies and standards can be found on the Graduate School Policies page (p. 440).

The minimum GPA for any graduate program is 3.0. Individual programs may require more than a 3.0 to remain in good standing.

The minimum grade for a course to be accepted toward any master's or doctoral requirement is C. The minimum grade for a course to be accepted toward a certificate program is B-. Individual programs may require higher grades for specific courses.

## Master of Education - Teaching and Learning; Curriculum Studies Concentration

- Masters students complete a common core and choose a specific area of focus: Elementary (K-8) Licensure or Secondary and K-12 Licensure.
- All requirements for the degree must be completed within six years, including successful completion of a departmental comprehensive examination and a minimum of 36 graduate credits.
- While the course listings below describe graduate-level requirements, students in the Elementary (K-8) Licensure and Secondary and K-12 Licensure focus areas must complete additional coursework to be eligible for initial teaching licensure in these areas.

### Course Requirements

| Code                                   | Title                                           | Hours |
|----------------------------------------|-------------------------------------------------|-------|
| <b>Core Courses</b>                    |                                                 |       |
| Complete all of the following courses: |                                                 |       |
| EDU 407E                               | Ethics & Policy Issues                          | 3     |
| EDU 501                                | Curriculum Design, Implementation, & Evaluation | 3     |
| EDU 514                                | Education Across Cultures                       | 3     |

|                                                                                                                       |                                                               |              |
|-----------------------------------------------------------------------------------------------------------------------|---------------------------------------------------------------|--------------|
| EDU 515                                                                                                               | Computer/Technological Application in Education               | 3            |
| EDU 518                                                                                                               | Inclusion and Collaboration                                   | 3            |
| EDU 520                                                                                                               | Educational Research                                          | 3            |
| EDU 594                                                                                                               | Seminar (Applied Research and Reflective Practice)            | 1            |
| or EDU 591                                                                                                            | Special Topics                                                |              |
| <b>Elective</b>                                                                                                       |                                                               |              |
| Complete one of the following courses:                                                                                |                                                               | 3            |
| EDU 502                                                                                                               | Philosophy of Education                                       |              |
| EDU 504                                                                                                               | History of American Education                                 |              |
| EDU 510                                                                                                               | Developmental & Learning Sciences                             |              |
| <b>Area of Focus</b>                                                                                                  |                                                               |              |
| Complete one of the following focus areas:                                                                            |                                                               | 14-20        |
| <b>Elementary (K-8) Licensure Focus</b> <sup>1</sup>                                                                  |                                                               |              |
| Complete all of the following courses (16 credits):                                                                   |                                                               |              |
| EDU 595                                                                                                               | Clinical/Practicum (Clinical Experience - 1 credit)           |              |
| EDU 497                                                                                                               | Teaching and Assessing (5-8 Mathematics - 3 credits)          |              |
| EDU 497                                                                                                               | Teaching and Assessing (K-8 Social Studies - 3 credits)       |              |
| EDU 497                                                                                                               | Teaching and Assessing (K-8 Science - 3 credits)              |              |
| EDU 497                                                                                                               | Teaching and Assessing (4-8 Reading - 3 credits)              |              |
| EDU 595                                                                                                               | Clinical/Practicum (Supervised Teaching - 3 credits)          |              |
| <b>Secondary and K-12 Licensure Focus</b> <sup>2</sup>                                                                |                                                               |              |
| Complete all of the following courses (14-23 credits):                                                                |                                                               |              |
| EDU 527                                                                                                               | Discipline of Literacy Strategies (3 credits)                 |              |
| or EDU 481                                                                                                            | Content Area Literacy                                         |              |
| EDU 595                                                                                                               | Clinical/Practicum (8 credits taken as 4 two-credit sections) |              |
| Methods Course - Complete one of the following as defined by major or minor content area (3-12 credits): <sup>3</sup> |                                                               |              |
| <b>History, Science, Mathematics, or Language - 3 credits total</b>                                                   |                                                               |              |
| EDU 497                                                                                                               | Teaching and Assessing (per subject area - 3 credits)         |              |
| or WLC 410                                                                                                            | Methods of Language Teaching                                  |              |
| <b>English - 12 credits total</b>                                                                                     |                                                               |              |
| ENT 439                                                                                                               | Studies in Young Adult Literature (3 credits)                 |              |
| ENT 440                                                                                                               | Teaching Writing in Secondary School (3 credits)              |              |
| ENT 445                                                                                                               | Teaching Reading, & Literature (3 credits)                    |              |
| ENT 544                                                                                                               | Creative Drama English Class (3 credits)                      |              |
| or ENT 442                                                                                                            | Teaching Oral Language & Media Literature                     |              |
| <b>Art - 6 credits total</b>                                                                                          |                                                               |              |
| ARTZ 402                                                                                                              | Teaching Art I - K-12 (3 credits)                             |              |
| ARTZ 403                                                                                                              | Teaching Art II - K-12 (3 credits)                            |              |
| <b>Total Hours</b>                                                                                                    |                                                               | <b>36-42</b> |

<sup>1</sup> While these course listings describe graduate-level requirements, students in the Elementary (K-8) Licensure focus area must complete

additional education and pedagogy coursework to be eligible for initial teaching licensure.

<sup>2</sup> While these course listings describe graduate-level requirements, students in the Secondary and K-12 Licensure focus area must complete additional education coursework to be eligible for initial teaching licensure. Depending upon one's undergraduate preparation and the content area in which one is pursuing licensure, content coursework may be required as well.

<sup>3</sup> Coreq. EDU 395

## Teaching and Learning M.Ed. - Early Childhood Education

### General Graduate Program Requirements

Graduate School policies and standards can be found on the Graduate School Policies page (p. 440).

The minimum GPA for any graduate program is 3.0. Individual programs may require more than a 3.0 to remain in good standing.

The minimum grade for a course to be accepted toward any master's or doctoral requirement is C. The minimum grade for a course to be accepted toward a certificate program is B-. Individual programs may require higher grades for specific courses.

### Master of Education - Teaching and Learning; Early Childhood Education Concentration

- All requirements for the degree must be completed within 6 years, including successful completion of a departmental comprehensive examination.
- The Master of Education (M.Ed.) in Teaching and Learning with a concentration in Early Childhood Education is a good choice for currently licensed teachers who are interested in obtaining a Preschool - Third Grade (P-3) endorsement.
- Individuals who do not have current K-8 licensure can complete this degree for professional development. This option is a good choice for people working in community-based early childhood programs and referral agencies as well as people working with young children and their families in fields such as psychology, social work, sociology, anthropology, pre-medical science, and nursing.
- The degree is 100% online and aligns with the National Association for the Education of Young Children Professional Standards and Competencies for Early Childhood Educators.

### Course Requirements

| Code                                                           | Title                             | Hours |
|----------------------------------------------------------------|-----------------------------------|-------|
| <b>Core Courses</b>                                            |                                   |       |
| Complete one of the following foundation of education courses: |                                   | 3     |
| EDU 502                                                        | Philosophy of Education           |       |
| EDU 504                                                        | History of American Education     |       |
| EDU 510                                                        | Developmental & Learning Sciences |       |
| Complete all of the following courses:                         |                                   |       |
| EDU 514                                                        | Education Across Cultures         | 3     |



|                                                        |                                                                        |           |
|--------------------------------------------------------|------------------------------------------------------------------------|-----------|
| EDU 515                                                | Computer/Technological Application in Education                        | 3         |
| EDU 518                                                | Inclusion and Collaboration                                            | 3         |
| EDU 520                                                | Educational Research                                                   | 3         |
| <b>Early Childhood Education Concentration Courses</b> |                                                                        |           |
| Complete all of the following courses:                 |                                                                        |           |
| EDU 501                                                | Curriculum Design, Implementation, & Evaluation                        | 3         |
| EDEC 508                                               | Early Childhood Principles and Practices                               | 3         |
| EDEC 515                                               | Educational Professionals Working With Families Experiencing Adversity | 3         |
| EDEC 520                                               | Meeting Standards Through Play-Based Environments                      | 3         |
| EDEC 530                                               | Social and Emotional Development in Young Children                     | 3         |
| EDEC 540                                               | Neuroscience and Its Impact on Child Development                       | 3         |
| EDU 588                                                | Action Research in Classroom                                           | 3         |
| <b>Total Hours</b>                                     |                                                                        | <b>36</b> |

## Teaching and Learning M.Ed. - Literacy Education

### General Graduate Program Requirements

Graduate School policies and standards can be found on the Graduate School Policies page (p. 440).

The minimum GPA for any graduate program is 3.0. Individual programs may require more than a 3.0 to remain in good standing.

The minimum grade for a course to be accepted toward any master's or doctoral requirement is C. The minimum grade for a course to be accepted toward a certificate program is B-. Individual programs may require higher grades for specific courses.

### Master of Education - Teaching and Learning; Literacy Education Concentration

- All requirements for the degree must be completed within six years, including successful completion of a departmental comprehensive examination.
- Please contact the Department of Teaching and Learning regarding the current availability of this degree pathway.

#### Course Requirements

| Code                                                           | Title                                           | Hours |
|----------------------------------------------------------------|-------------------------------------------------|-------|
| <b>Core Courses</b>                                            |                                                 |       |
| Complete one of the following foundation of education courses: |                                                 | 3     |
| EDU 502                                                        | Philosophy of Education                         |       |
| EDU 504                                                        | History of American Education                   |       |
| EDU 510                                                        | Developmental & Learning Sciences               |       |
| Complete all of the following courses:                         |                                                 |       |
| EDU 501                                                        | Curriculum Design, Implementation, & Evaluation | 3     |

|                                        |                                                 |           |
|----------------------------------------|-------------------------------------------------|-----------|
| EDU 514                                | Education Across Cultures                       | 3         |
| EDU 515                                | Computer/Technological Application in Education | 3         |
| EDU 518                                | Inclusion and Collaboration                     | 3         |
| EDU 520                                | Educational Research                            | 3         |
| <b>Directed Courses</b>                |                                                 |           |
| Complete all of the following courses: |                                                 |           |
| EDU 438                                | Literacy Assessment, Diagnosis, & Instruction   | 3         |
| EDU 527                                | Discipline of Literacy Strategies               | 3         |
| EDU 530                                | Trends & Research in Reading and Writing        | 3         |
| EDU 540                                | Language Arts Pedagogy and Practice             | 3         |
| EDU 541                                | Genre Studies                                   | 3         |
| EDU 557                                | Advanced Literacy Practicum K12                 | 3         |
| <b>Total Hours</b>                     |                                                 | <b>36</b> |

## Teaching and Learning M.Ed. - Special Education

### General Graduate Program Requirements

Graduate School policies and standards can be found on the Graduate School Policies page (p. 440).

The minimum GPA for any graduate program is 3.0. Individual programs may require more than a 3.0 to remain in good standing.

The minimum grade for a course to be accepted toward any master's or doctoral requirement is C. The minimum grade for a course to be accepted toward a certificate program is B-. Individual programs may require higher grades for specific courses.

### Master of Education - Teaching and Learning; Special Education Concentration

- All requirements for the degree must be completed within six years, including successful completion of a departmental comprehensive examination.

#### Course Requirements

| Code                                                           | Title                                           | Hours |
|----------------------------------------------------------------|-------------------------------------------------|-------|
| <b>Core Courses</b>                                            |                                                 |       |
| Complete one of the following foundation of education courses: |                                                 | 3     |
| EDU 502                                                        | Philosophy of Education                         |       |
| EDU 504                                                        | History of American Education                   |       |
| EDU 510                                                        | Developmental & Learning Sciences               |       |
| Complete all of the following courses:                         |                                                 |       |
| EDU 501                                                        | Curriculum Design, Implementation, & Evaluation | 3     |
| EDU 514                                                        | Education Across Cultures                       | 3     |
| EDU 515                                                        | Computer/Technological Application in Education | 3     |
| EDU 518                                                        | Inclusion and Collaboration                     | 3     |
| EDU 520                                                        | Educational Research                            | 3     |

**Directed Courses****Complete all of the following courses:**

|          |                                                   |   |
|----------|---------------------------------------------------|---|
| EDU 438  | Literacy Assessment, Diagnosis, & Instruction     | 3 |
| EDSP 403 | Introduction to Early Childhood Special Education | 3 |
| EDSP 405 | Assessment of Students with Exceptionalities      | 3 |
| EDSP 526 | Transition & Community Support                    | 3 |
| EDSP 454 | Advanced Academic Interventions                   | 3 |
| EDSP 556 | Methods of Low Incidence Disabilities             | 3 |
| EDSP 461 | Positive Behavior Supports                        | 3 |
| EDSP 462 | Special Education Law, Policy, and Practice       | 3 |
| EDSP 495 | Student Teaching: Special Education               | 6 |

**Total Hours** **48**

## Teaching and Learning M.Ed. - Teacher Librarian Studies

### General Graduate Program Requirements

Graduate School policies and standards can be found on the Graduate School Policies page (p. 440).

The minimum GPA for any graduate program is 3.0. Individual programs may require more than a 3.0 to remain in good standing.

The minimum grade for a course to be accepted toward any master's or doctoral requirement is C. The minimum grade for a course to be accepted toward a certificate program is B-. Individual programs may require higher grades for specific courses.

## Master of Education - Teaching and Learning; Teacher Librarian Studies Concentration

- All requirements for the degree must be completed within six years, including successful completion of a departmental comprehensive examination.
- The Teacher Librarian Studies program is aligned with American Association of School Librarians (AASL) standards for the K-12 library media endorsement.
- The Library Media (LIBM) credits are offered online and provide exploration of the diverse skills necessary for successful administration and management of a school library, for supporting district curriculum, teaching information literacy, and engaging young readers in the rich universe of literature.
- The capstone of the program is a two-credit practicum experience in a school or public library setting in the student's vicinity, supervised by a working librarian.
- Courses are taught by faculty with extensive experience and knowledge of the various roles of Teacher Librarians.

### Course Requirements

| Code                                                           | Title | Hours |
|----------------------------------------------------------------|-------|-------|
| <b>Core Courses</b>                                            |       |       |
| Complete one of the following foundation of education courses: |       | 3     |

|         |                                   |
|---------|-----------------------------------|
| EDU 502 | Philosophy of Education           |
| EDU 504 | History of American Education     |
| EDU 510 | Developmental & Learning Sciences |

**Complete all of the following courses:**

|         |                                                 |   |
|---------|-------------------------------------------------|---|
| EDU 501 | Curriculum Design, Implementation, & Evaluation | 3 |
| EDU 514 | Education Across Cultures                       | 3 |
| EDU 518 | Inclusion and Collaboration                     | 3 |
| EDU 520 | Educational Research                            | 3 |

**Directed Courses****Complete all of the following courses:**

|          |                                                 |   |
|----------|-------------------------------------------------|---|
| LIBM 461 | Information Literacy                            | 3 |
| LIBM 462 | Youth Literature for Librarians                 | 3 |
| LIBM 464 | Reference Resources                             | 3 |
| LIBM 466 | Libraries & Technology                          | 3 |
| LIBM 467 | Collection Development & Cataloging             | 4 |
| LIBM 468 | Administration & Assessment of Library Programs | 3 |
| LIBM 495 | Practicum                                       | 2 |

**Total Hours** **36**

## Education M.A.

### General Graduate Program Requirements

Graduate School policies and standards can be found on the Graduate School Policies page (p. 440).

The minimum GPA for any graduate program is 3.0. Individual programs may require more than a 3.0 to remain in good standing.

The minimum grade for a course to be accepted toward any master's or doctoral requirement is C. The minimum grade for a course to be accepted toward a certificate program is B-. Individual programs may require higher grades for specific courses.

## Online Program Option

This program may be completed in an online format (<https://catalog.umd.edu/online-programs/definitions/>). Students interested in pursuing an online degree or certificate program are strongly encouraged to contact the offering department to discuss specific program and course modalities (<https://catalog.umd.edu/online-programs/definitions/>) and create a plan of study with an academic advisor. The course requirements listed below may not be consistently offered via online delivery.

## Master of Arts - Education

- The core of the M.A. in Education program will have flexible options in each of 4 key areas: Educational Research, Learning and Assessment, Critical Social Issues, and Diversity, for total of 12 credits.
- The remaining requirements include a 3-credit thesis and an additional 15 credits of electives in education.
- This program is geared toward graduate students who may already hold teacher licensure or those from other areas interested in professional education degrees to prepare them for work in non-profit or non-school settings. This degree will also prepare participants for doctoral work in education.

- All requirements for the degree must be completed within 6 years, including successful completion of a thesis.

Course Requirements

| Code                                                                              | Title                                           | Hours     |
|-----------------------------------------------------------------------------------|-------------------------------------------------|-----------|
| <b>Educational Research</b>                                                       |                                                 |           |
| Complete one of the following courses:                                            |                                                 | 3         |
| EDU 520                                                                           | Educational Research                            |           |
| EDU 588                                                                           | Action Research in Classroom                    |           |
| <b>Learning and Assessment</b>                                                    |                                                 |           |
| Complete one of the following courses:                                            |                                                 | 3         |
| EDU 501                                                                           | Curriculum Design, Implementation, & Evaluation |           |
| EDU 510                                                                           | Developmental & Learning Sciences               |           |
| EDU 519                                                                           | Analysis of Education Data                      |           |
| <b>Critical Social Issues</b>                                                     |                                                 |           |
| Complete one of the following courses:                                            |                                                 | 3         |
| EDU 502                                                                           | Philosophy of Education                         |           |
| EDU 504                                                                           | History of American Education                   |           |
| EDU 582                                                                           | Education Technology Trends & Issues            |           |
| <b>Diversity</b>                                                                  |                                                 |           |
| Complete one of the following courses:                                            |                                                 | 3         |
| EDU 514                                                                           | Education Across Cultures                       |           |
| EDU 518                                                                           | Inclusion and Collaboration                     |           |
| <b>Electives</b>                                                                  |                                                 |           |
| Complete 15 additional graduate credits chosen in consultation with your advisor. |                                                 | 15        |
| <b>Thesis</b>                                                                     |                                                 |           |
| Complete the following course:                                                    |                                                 |           |
| EDU 599                                                                           | Professional Project/Thesis                     | 3         |
| <b>Total Hours</b>                                                                |                                                 | <b>30</b> |

Early Childhood Education Graduate Certificate

General Graduate Program Requirements

Graduate School policies and standards can be found on the Graduate School Policies page (p. 440).

The minimum GPA for any graduate program is 3.0. Individual programs may require more than a 3.0 to remain in good standing.

The minimum grade for a course to be accepted toward any master’s or doctoral requirement is C. The minimum grade for a course to be accepted toward a certificate program is B-. Individual programs may require higher grades for specific courses.

Online Program Option

This program may be completed in an online format (<https://catalog.umd.edu/online-programs/definitions/>). Students interested in pursuing an online degree or certificate program are strongly encouraged to contact the offering department to discuss specific program and course modalities (<https://catalog.umd.edu/online-programs/definitions/>) and create a plan of study with an academic advisor. The course

requirements listed below may not be consistently offered via online delivery.

Graduate Certificate - Early Childhood Education

This graduate endorsement is only for currently licensed elementary education teachers who already hold a master’s degree in education or an education-related field and are seeking an early childhood education (P-3) endorsement.

Course Requirements

| Code                                          | Title                                                                  | Hours     |
|-----------------------------------------------|------------------------------------------------------------------------|-----------|
| <b>Complete all of the following courses:</b> |                                                                        |           |
| EDEC 508                                      | Early Childhood Principles and Practices                               | 3         |
| EDEC 515                                      | Educational Professionals Working With Families Experiencing Adversity | 3         |
| EDEC 520                                      | Meeting Standards Through Play-Based Environments                      | 3         |
| EDEC 530                                      | Social and Emotional Development in Young Children                     | 3         |
| EDEC 540                                      | Neuroscience and Its Impact on Child Development                       | 3         |
| EDU 588                                       | Action Research in Classroom                                           | 3         |
| <b>Total Hours</b>                            |                                                                        | <b>18</b> |

Environmental Education Graduate Certificate

General Graduate Program Requirements

Graduate School policies and standards can be found on the Graduate School Policies page (p. 440).

The minimum GPA for any graduate program is 3.0. Individual programs may require more than a 3.0 to remain in good standing.

The minimum grade for a course to be accepted toward any master’s or doctoral requirement is C. The minimum grade for a course to be accepted toward a certificate program is B-. Individual programs may require higher grades for specific courses.

Graduate Certificate - Environmental Education

- The admission process to this certificate program involves the following:
  - a. Successful admission into a masters degree program in Teaching and Learning or Environmental Studies.
  - b. Completion of an interview based on previous professional experiences, educational background, GPA, and professional goals.
- Completion Requirements: The following requirements must be completed to receive the certificate in Environmental Education:
  - Completion of the 12-credit certificate sequence having a grade of B or better in all course work.
  - In addition, a written reflective essay must be completed and submitted that addresses how the candidate met the NAAEE Guideline criteria aligned with each course, field experiences, and

internship. This will be followed by an exit interview and based on the essay and interview candidate performance on each strand and element will be evaluated as unacceptable, acceptable, or target level criteria established in the guidelines. To receive the certificate, students must score at the acceptable or target level on all elements.

### Course Requirements

| Code                                          | Title                                            | Hours     |
|-----------------------------------------------|--------------------------------------------------|-----------|
| <b>Complete all of the following courses:</b> |                                                  |           |
| ENST/EDU 521                                  | Foundation in Environmental Education            | 3         |
| ENST/EDU 548                                  | Supervision and Teaching Environmental Education | 3         |
| EDU 525                                       | Teaching Environmental Science                   | 3         |
| ENST 590<br>or EDU 598                        | Research<br>Internship                           | 3         |
| <b>Total Hours</b>                            |                                                  | <b>12</b> |

## Gifted Education Graduate Certificate

This graduate-level certificate develops expertise in gifted and talented education by providing the specialized skills necessary to effectively teach high-ability students. It enhances an educator's ability to create inclusive programs for gifted students and coordinate programs and services at the district level. The University of Montana is the only university in Montana offering this certificate. Courses are taught by faculty with extensive knowledge and expertise in gifted education.

The certificate aligns with the National Gifted Education Standards for Teacher Preparation. These national standards were developed by the National Association for Gifted Children in collaboration with the Council for Exceptional Children. The certificate is offered completely online and is open to teachers across the U.S. and around the world.

### General Graduate Program Requirements

Graduate School policies and standards can be found on the Graduate School Policies page (p. 440).

The minimum GPA for any graduate program is 3.0. Individual programs may require more than a 3.0 to remain in good standing.

The minimum grade for a course to be accepted toward any master's or doctoral requirement is C. The minimum grade for a course to be accepted toward a certificate program is B-. Individual programs may require higher grades for specific courses.

### Online Program Option

This program may be completed in an online format (<https://catalog.umat.edu/online-programs/definitions/>). Students interested in pursuing an online degree or certificate program are strongly encouraged to contact the offering department to discuss specific program and course modalities (<https://catalog.umat.edu/online-programs/definitions/>) and create a plan of study with an academic advisor. The course requirements listed below may not be consistently offered via online delivery.

## Graduate Certificate - Gifted Education

### Course Requirements

| Code                                          | Title                                                            | Hours     |
|-----------------------------------------------|------------------------------------------------------------------|-----------|
| <b>Complete all of the following courses:</b> |                                                                  |           |
| EDU 561                                       | Introduction to Gifted/Talented Education                        | 3         |
| EDU 562                                       | Social and Emotional Development of Gifted and Talented Learners | 3         |
| EDU 563                                       | Methods and Curriculum for the Gifted and Talented               | 3         |
| EDU 564                                       | Planning Programs for the Gifted and Talented                    | 3         |
| <b>Total Hours</b>                            |                                                                  | <b>12</b> |

## Reading Education Graduate Certificate

### General Graduate Program Requirements

Graduate School policies and standards can be found on the Graduate School Policies page (p. 440).

The minimum GPA for any graduate program is 3.0. Individual programs may require more than a 3.0 to remain in good standing.

The minimum grade for a course to be accepted toward any master's or doctoral requirement is C. The minimum grade for a course to be accepted toward a certificate program is B-. Individual programs may require higher grades for specific courses.

## Graduate Certificate - Reading Education

- This program of study can only be completed by those pursuing a teaching endorsement in another content area or by currently licensed teachers. Students must be formally admitted to the Teacher Education Program and complete all of the professional education licensure requirements. See the Department of Teaching and Learning in the College of Education for more information.
- Those seeking licensure in K-12 reading in Montana must also show course equivalency for EDU 331, EDU 339, EDU 397, and EDU 497 or complete these courses as part of their program of study.

### Course Requirements

| Code                                          | Title                                         | Hours     |
|-----------------------------------------------|-----------------------------------------------|-----------|
| <b>Complete all of the following courses:</b> |                                               |           |
| EDU 432                                       | Literature & Literacy for Young Adults        | 3         |
| EDU 438                                       | Literacy Assessment, Diagnosis, & Instruction | 3         |
| EDU 481                                       | Content Area Literacy                         | 3         |
| EDU 557                                       | Advanced Literacy Practicum K12 <sup>1</sup>  | 3         |
| <b>Total Hours</b>                            |                                               | <b>12</b> |

<sup>1</sup> All reading coursework must be complete prior to enrolling in the reading practicum.

# Secondary/K12 Teaching Graduate Certificate

## General Graduate Program Requirements

Graduate School policies and standards can be found on the Graduate School Policies page (p. 440).

The minimum GPA for any graduate program is 3.0. Individual programs may require more than a 3.0 to remain in good standing.

The minimum grade for a course to be accepted toward any master's or doctoral requirement is C. The minimum grade for a course to be accepted toward a certificate program is B-. Individual programs may require higher grades for specific courses.

## Graduate Certificate - Secondary/K12 Teaching

This certificate has two pathways:

- A three-semester pathway for aspiring teachers seeking an accelerated licensure pathway.
- A five-semester pathway for those already employed as teachers under provisional licences.

### Course Requirements

| Code               | Title                                                        | Hours        |
|--------------------|--------------------------------------------------------------|--------------|
| EDU 407E           | Ethics & Policy Issues                                       | 3            |
| EDU 497            | Teaching and Assessing                                       | 3            |
| EDU 510            | Developmental & Learning Sciences                            | 3            |
| EDU 514            | Education Across Cultures                                    | 3            |
| EDU 518            | Inclusion and Collaboration                                  | 3            |
| EDU 591            | Special Topics (Classroom Management for Secondary Teachers) | 3            |
| EDU 595            | Clinical/Practicum                                           | 3-6          |
| <b>Total Hours</b> |                                                              | <b>21-24</b> |

## Special Education Graduate Certificate

### General Graduate Program Requirements

Graduate School policies and standards can be found on the Graduate School Policies page (p. 440).

The minimum GPA for any graduate program is 3.0. Individual programs may require more than a 3.0 to remain in good standing.

The minimum grade for a course to be accepted toward any master's or doctoral requirement is C. The minimum grade for a course to be accepted toward a certificate program is B-. Individual programs may require higher grades for specific courses.

## Graduate Certificate - Special Education

This program of study can only be completed by those pursuing a teaching endorsement in another content area or by currently licensed teachers. Students must be formally admitted to the Teacher Education Program and complete all of the professional education licensure

requirements. See the Department of Teaching and Learning in the College of Education for more information.

### Course Requirements

| Code                                          | Title                                             | Hours        |
|-----------------------------------------------|---------------------------------------------------|--------------|
| <b>Complete all of the following courses:</b> |                                                   |              |
| EDSP 403                                      | Introduction to Early Childhood Special Education | 3            |
| EDSP 405                                      | Assessment of Students with Exceptionalities      | 3            |
| EDSP 526                                      | Transition & Community Support                    | 3            |
| EDSP 454                                      | Advanced Academic Interventions                   | 3            |
| EDSP 556                                      | Methods of Low Incidence Disabilities             | 3            |
| EDSP 461                                      | Positive Behavior Supports                        | 3            |
| EDSP 462                                      | Special Education Law, Policy, and Practice       | 3            |
| EDU 438                                       | Literacy Assessment, Diagnosis, & Instruction     | 3            |
| EDSP 495                                      | Student Teaching: Special Education <sup>1</sup>  | 6-10         |
| <b>Total Hours</b>                            |                                                   | <b>30-34</b> |

<sup>1</sup> All special education coursework must be completed prior to the special education student teaching experience. An application is required to determine special education student teaching eligibility. See Teacher Education Services or the Office of Field Experiences for deadlines. Initial licensure candidates complete a 10-credit practicum. Currently licensed teachers complete a 6-credit practicum.

## Specialized Interventionists for Montana Schools Graduate Certificate

Special education and related service scholars will enhance their learning through this certificate program in addition to their graduate degree. This collection of 16 credits addresses secondary transition, teaching learners with low-incidence disabilities, autism intervention, assistive technology, and cultural responsiveness in the schools. Additionally, scholars will learn how to serve students through tele-intervention. Three of the courses have an experiential learning component.

### General Graduate Program Requirements

Graduate School policies and standards can be found on the Graduate School Policies page (p. 440).

The minimum GPA for any graduate program is 3.0. Individual programs may require more than a 3.0 to remain in good standing.

The minimum grade for a course to be accepted toward any master's or doctoral requirement is C. The minimum grade for a course to be accepted toward a certificate program is B-. Individual programs may require higher grades for specific courses.

## Online Program Option

This program may be completed in an online format (<https://catalog.umontana.edu/online-programs/definitions/>). Students interested in pursuing an online degree or certificate program are strongly encouraged to contact the offering department to discuss specific program and



course modalities (<https://catalog.umat.edu/online-programs/definitions/>) and create a plan of study with an academic advisor. The course requirements listed below may not be consistently offered via online delivery.

## Graduate Certificate - Specialized Interventionists for Montana Schools

### Course Requirements

| Code                                   | Title                                                           | Hours     |
|----------------------------------------|-----------------------------------------------------------------|-----------|
| <b>Required Courses</b>                |                                                                 |           |
| Complete all of the following courses: |                                                                 |           |
| EDSP 526                               | Transition & Community Support                                  | 3         |
| EDSP 556                               | Methods of Low Incidence Disabilities                           | 3         |
| EDSP 594                               | Seminar (Assistive Technology Practical Application)            | 2         |
| EDU 518                                | Inclusion and Collaboration                                     | 3         |
| SLP 545                                | Social Communication Skills, Behavior, and Neurodiversity       | 3         |
| SLP 594                                | Graduate Seminar (Cultural Responsiveness in Special Education) | 1         |
| SLP 594                                | Graduate Seminar (Tele-Intervention and Learning)               | 1         |
| <b>Total Hours</b>                     |                                                                 | <b>16</b> |

## Teacher Librarian Studies Graduate Certificate

This program of study can only be completed by those pursuing a teaching endorsement in another content area or by currently licensed teachers. Students must be formally admitted to the Teacher Education Program and complete all of the professional education licensure requirements. Please contact the Department of Teaching and Learning in the College of Education for more information.

## General Graduate Program Requirements

Graduate School policies and standards can be found on the Graduate School Policies page (p. 440).

The minimum GPA for any graduate program is 3.0. Individual programs may require more than a 3.0 to remain in good standing.

The minimum grade for a course to be accepted toward any master's or doctoral requirement is C. The minimum grade for a course to be accepted toward a certificate program is B-. Individual programs may require higher grades for specific courses.

## Graduate Certificate - Teacher Librarian Studies

### Course Requirements

| Code                                          | Title                           | Hours |
|-----------------------------------------------|---------------------------------|-------|
| <b>Complete all of the following courses:</b> |                                 |       |
| LIBM 461                                      | Information Literacy            | 3     |
| LIBM 462                                      | Youth Literature for Librarians | 3     |
| LIBM 464                                      | Reference Resources             | 3     |
| LIBM 466                                      | Libraries & Technology          | 3     |

|                    |                                                 |           |
|--------------------|-------------------------------------------------|-----------|
| LIBM 467           | Collection Development & Cataloging             | 4         |
| LIBM 468           | Administration & Assessment of Library Programs | 3         |
| LIBM 495           | Practicum <sup>1</sup>                          | 2         |
| <b>Total Hours</b> |                                                 | <b>21</b> |

<sup>1</sup> The practicum requires 60 hours in a school or public library. All library media coursework must be completed prior to enrolling in the library media practicum.

## W.A. Franke College of Forestry and Conservation Graduate Programs

- Doctoral Programs (p. 481)
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  - Forest and Conservation Sciences Ph.D. (p. 482)
  - Geosciences Ph.D. (p. 483)
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## Doctoral Programs

- Fish and Wildlife Biology Ph.D. (p. 481)
- Forest and Conservation Sciences Ph.D. (p. 482)
- Geosciences Ph.D. (p. 483)
- Systems Ecology Ph.D. (p. 484)

## Fish and Wildlife Biology Ph.D.

## General Graduate Program Requirements

Graduate School policies and standards can be found on the Graduate School Policies page (p. 440).

The minimum GPA for any graduate program is 3.0. Individual programs may require more than a 3.0 to remain in good standing.

The minimum grade for a course to be accepted toward any master's or doctoral requirement is C. The minimum grade for a course to be accepted toward a certificate program is B-. Individual programs may require higher grades for specific courses.

## Doctor of Philosophy - Fish and Wildlife Biology

Students in the Fish and Wildlife Biology doctoral program must:

- Complete a minimum of 60 graduate semester credits beyond the bachelor's degree.
  - These credits can include up to 30 semester credits completed as part of a master of science degree. Ten (10) of the may be for thesis, research, or independent study courses and be applied to the 60 credit requirement. See Graduate School Policy D2.100 (p. 440) for policies on graduate transfer credits.
  - The student's dissertation committee may require more credits depending on the student's background for the proposed dissertation research program.
  - Of the 60 graduate semester credits, no more than 20 of these credits may be thesis credits.
  - Of the remaining credits, at least 20 must be numbered at the 500-level or above. Specific courses will be determined by each student's graduate committee.
  - At least 30 graduate semester credits must be taken at the University of Montana.
- Successfully write and defend a dissertation. This will include the completion of the following:
  - A research statement – a short written description of preliminary research ideas.
  - A preliminary research proposal – an expansion of the research statement to provide initial thoughts on conceptual basis and study design.
  - A research proposal – a formal research proposal presenting the conceptual and empirical framework of the research.
- Successfully complete a comprehensive exam that consists of 5 days of written questions and a 3-hour oral exam.
- Complete supervised teaching, which includes 2 semesters of teaching assistantship or similar experience as approved by the student's graduate committee.

The only required coursework for the Ph.D. program is at least two semesters of WILD 594. Additionally, each student should be able to demonstrate through appropriate coursework competence in some aspect of theory, applications, and methods.

Most students' coursework will also include appropriate biometry/statistics courses. Additional required coursework will be determined by each student's graduate committee. These courses will be selected primarily to assist the student in planning, conducting, and writing the dissertation.

### Required Courses

| Code                                          | Title                                                | Hours |
|-----------------------------------------------|------------------------------------------------------|-------|
| <b>Graduate Seminar</b>                       |                                                      |       |
| Complete two credits of the following course: |                                                      |       |
| WILD 594                                      | Graduate Seminar in Wildlife Biology (two semesters) | 2     |
| <b>Electives, Research, and Dissertation</b>  |                                                      |       |

Complete 58 credits of graduate-level coursework selected in consultation with your advisor. 58

**Total Hours** 60

## Forest and Conservation Sciences Ph.D.

### General Graduate Program Requirements

Graduate School policies and standards can be found on the Graduate School Policies page (p. 440).

The minimum GPA for any graduate program is 3.0. Individual programs may require more than a 3.0 to remain in good standing.

The minimum grade for a course to be accepted toward any master's or doctoral requirement is C. The minimum grade for a course to be accepted toward a certificate program is B-. Individual programs may require higher grades for specific courses.

## Doctor of Philosophy - Forest and Conservation Sciences

The primary emphasis of the Ph.D. program is professional development, stimulation of intellectual curiosity, and competency in science, rather than on a specified set of courses. However, a general set of coursework requirements must be completed successfully.

Students in the Forest and Conservation Sciences doctoral program must:

- Complete at least 60 credits beyond the Bachelor's degree; more may be required by the dissertation committee depending on the student's background. Specific courses determined by the student's graduate committee.
  - At least 40 credits of these credits must be in coursework, not thesis or research credits.
  - At least half (minimum 20 credits) of the 40 coursework credits must be at the 500-level or above.
  - At least 30 credits must be taken at the University of Montana.
- Complete at least one credit of graduate seminar per academic year (FORS, NRSM, PTRM, or WILD 594).
- Successfully complete and defend a dissertation, which will include:
  - A research statement – a short written description of preliminary research ideas.
  - A research proposal – a formal research proposal presenting the conceptual and empirical framework of the research.
- Successfully complete a comprehensive exam, which includes 5 days of written questions and a 3-hour oral exam.

### Required Courses

| Code                                                            | Title                                   | Hours |
|-----------------------------------------------------------------|-----------------------------------------|-------|
| <b>Graduate Seminar</b>                                         |                                         |       |
| Complete one credit of the following courses per academic year: |                                         | 2     |
| FORS 594                                                        | Graduate Seminar                        |       |
| NRSM 594                                                        | Seminar                                 |       |
| PTRM 594                                                        | Conservation and Social Science Seminar |       |
| WILD 594                                                        | Graduate Seminar in Wildlife Biology    |       |

**Electives, Research, and Dissertation**

|                                                                                              |    |
|----------------------------------------------------------------------------------------------|----|
| Complete 58 credits of graduate-level coursework selected in consultation with your advisor. | 58 |
|----------------------------------------------------------------------------------------------|----|

|                    |           |
|--------------------|-----------|
| <b>Total Hours</b> | <b>60</b> |
|--------------------|-----------|

## Geosciences Ph.D.

### General Graduate Program Requirements

Graduate School policies and standards can be found on the Graduate School Policies page (p. 440).

The minimum GPA for any graduate program is 3.0. Individual programs may require more than a 3.0 to remain in good standing.

The minimum grade for a course to be accepted toward any master's or doctoral requirement is C. The minimum grade for a course to be accepted toward a certificate program is B-. Individual programs may require higher grades for specific courses.

### Doctor of Philosophy - Geosciences

A minimum of 60 graduate-level credits the Ph.D. The committee will often require additional coursework beyond the minimum of 60 credits. A minimum of 40 credits of formal coursework and 20 thesis credits (GEO 699) must be completed. The following additional constraints apply:

- At least half (i.e., 20) of the coursework credits must be at the 500 or 600 level;
- At least 14 of the 40 formal course credits must be Geosciences courses;
- No more than 6 credits of Research (GEO 590) may be applied;
- A minimum of 6 graduate credits of coursework must be taken outside of the Geosciences Department in cognate science areas;
- Transfer credits from a Master of Science degree may be used to satisfy any of the above formal coursework requirements with committee approval. Thesis credits cannot be transferred.
- This coursework must comprise a coherent program relevant to the student's dissertation research and/or professional goals. Cognate courses are generally in biology, mathematics, physics, chemistry, or computer science. Some courses in other units may be suitable for some fields of study.
- All requirements for the doctorate must be completed within seven years of commencing graduate course work at the University of Montana. Courses that fall outside this time limit must be recertified for currency of knowledge.

### Required Coursework

| Code                                                                              | Title                 | Hours     |
|-----------------------------------------------------------------------------------|-----------------------|-----------|
| <b>Complete all of the following:</b>                                             |                       |           |
| 40 credits of graduate-level coursework chosen in consultation with your advisor. |                       | 40        |
| GEO 699                                                                           | Dissertation Research | 20        |
| <b>Total Hours</b>                                                                |                       | <b>60</b> |

### Ph.D. Committees

A Ph.D. committee must have at least five qualifying members. The committee must include the major advisor, at least one more faculty member from Geosciences, and at least one member of the UM faculty from outside the Department of Geosciences. Additional

members beyond the latter three may be added from Geosciences, other departments at UM, or from other institutions provided their credentials are approved by the graduate school. Not more than one member may be emeritus or research faculty of the Department. This committee is responsible for evaluating the student's research, for providing supplemental instruction in their research specialties to complement the primary training of the student, for administering the comprehensive exam, and for assessing the dissertation. Committee members should therefore be selected by the pertinence of their expertise in the intended course of study. Ph.D. degree seeking students who fail to establish and maintain a committee after two years will be dismissed.

### Comprehensive Exam and Dissertation Proposal

By the end of fourth semester of study, the student will complete written and oral comprehensive examinations covering the major discipline. Successful completion of the comprehensive examinations is required for a student to be advanced to candidacy in the doctoral program. See the suggested description of the exam process (<https://www.umt.edu/geosciences/graduate/phd/exams.php>) on the Graduate School website; however, the structure and process of the comprehensive exam are at the discretion of the advisor and research committee.

### Dissertation

Completion of the degree requires submission and defense of a doctoral dissertation. This document may consist of two or more papers submitted or ready for submission to peer-reviewed scientific publications or of a single long document containing original scientific research. The journal paper format is strongly encouraged. Length and content requirements are subject to the advisor and the committee. In the case of the journal paper format, additional chapters or appendices including data, detailed methods, or other unifying material may be required. However, an advanced degree in the physical sciences requires a demonstration of competence in scientific method as well as familiarity with the current state of knowledge in a specialty and a substantive new contribution either to the body of methodology or the body of theory applicable in the field of expertise. All graduates of the program must also demonstrate a thorough understanding of the principles in their specialization, current techniques and methods in that field, a thorough understanding of scientific data and error analysis, and competence in scientific writing.

### Dissertation Defence

The oral defense of the dissertation may be scheduled only after the research committee has approved the draft dissertation. A copy of the accepted and corrected committee draft of the dissertation must be placed in the department office at least one week before the defense for inspection by any university faculty member. The defense should be held during the period of a regular autumn or spring semester and must be completed at least 15 days before commencement. However, the defense can be held during the summer with the approval of the research committee if normal semester deadlines cannot be met.

The dissertation defense has two parts: a public oral presentation and the examination conducted by the faculty. The public presentation is open to all students and faculty of the department and any other interested people.

The final defense before the research committee and members of the university faculty follows the public presentation. The purpose of this defense is to test general comprehension of the dissertation project and

related material. Following a period of questioning, the committee will meet in closed session to vote. Possible outcomes are:

1. Unanimous pass without revision.
2. Unanimous pass with minor revisions to the dissertation.
3. Failure of defense that in most cases will lead to major revisions of the dissertation. If one or more failing votes are cast, the candidate must make the changes required by the committee and must defend within 30 days. A second failure is final and the student will be dismissed from the program.

### Program Time Limit

All requirements for the degree must be completed within seven years of commencing graduate coursework at the University of Montana. Candidates are not excused from program time limitations by virtue of a leave of absence except when the leave is granted prior to commencing coursework.

### Application for Graduation

At least one semester before the Ph.D. degree is to be awarded, the student must submit three copies of the Application for Graduation form (<https://www.umt.edu/grad/docs/forms/graduation-app.pdf>) to the Graduate School and pay a graduation fee. See the Calendar of Deadlines (<http://www.umt.edu/grad/current-students/completing-degree/deadlines/default.php>) for the exact dates to file paperwork. The Graduate School will conduct a degree audit and send two copies of this form back (one departmental copy and one student copy) early in the graduating semester. The department and student should note any problems and rectify them at least two weeks prior to the end of the final semester by using a Graduation Amendment Form. If the student fails to meet the original graduation date as requested on the form, the student may request the application be reactivated for the following semester by notifying the Graduate School one semester prior to the revised completion date.

After the defense, the successful candidate must follow the Graduate School rules for submitting the dissertation. In addition, the student must complete the following tasks:

1. Prepare one hard copy of the thesis for each research committee member. The copy should be bound according to the requirements of the thesis advisor. Some committee members may prefer only an electronic copy.
2. Where appropriate, the advisor may require a representative collection of samples, specimens, thin sections or other materials, as well as a copy of all field and laboratory notes, for the departmental collections.
3. Clean up all lab and office space and return any departmental equipment and keys (remember to claim key deposits!).
4. Return any books or other items borrowed from the faculty.
5. Provide forwarding contact information to the department secretary.

### Intellectual Property Rights

The preservation and publication of samples and data collected during thesis research is of the highest priority. Therefore, raw data and samples generated as part of research projects supported by faculty grants and/or support from the Department of Geosciences will reside in the Department. The student must develop a plan for the archiving and transferring of data and samples with his/her advisor prior to finishing research and writing the dissertation. The advisor has the responsibility to explain to the student any restrictions or dispensations on intellectual

property rights of the data/information generated during the student's research. The advisor and student should consult to determine content, authorship and acknowledgements before papers are submitted for publication.

## Systems Ecology Ph.D.

Housed in the W.A. Franke College of Forestry and Conservation (<http://www.cfc.umt.edu/default.php>), Systems Ecology is an intercollegiate graduate degree program that emphasizes interdisciplinary approaches to understanding ecological and human systems. Systems Ecology is an ideal fit for students interested in understanding the biological, physical, chemical, and human processes that shape social-ecological systems across spatial and temporal scales. Choose Systems Ecology for an interdisciplinary approach to the study of ecological systems that focuses on interactions and transactions within and among biological systems.

Systems Ecology has a diverse faculty, a unique graduate curriculum, and each student does their own independent thesis work. This program brings together collaborators from across the UM campus. Both the M.S. and Ph.D. programs promote an understanding of ecological systems and problem solving, provides students with knowledge about linkages between natural and social domains at multiple scales, and helps students sharpen the skills they need to engage in an increasingly complex world.

## General Graduate Program Requirements

Graduate School policies and standards can be found on the Graduate School Policies page (p. 440).

The minimum GPA for any graduate program is 3.0. Individual programs may require more than a 3.0 to remain in good standing.

The minimum grade for a course to be accepted toward any master's or doctoral requirement is C. The minimum grade for a course to be accepted toward a certificate program is B-. Individual programs may require higher grades for specific courses.

## Doctor of Philosophy - Systems Ecology

Students in the Systems Ecology doctoral program must:

- Complete a minimum of 60 semester credits beyond a bachelor's degree.
  - As many as 20 credits may be research or thesis.
  - The other 40 credits may include coursework, graduate seminars, special topics, or independent study courses.
  - Up to 30 credits can be from a master's degree as approved by the student's committee and accepted by the Graduate School.
- Successfully complete comprehensive exams (written and oral).
- Successfully complete and defend a systems ecology-oriented dissertation of original research.
- Complete their program-of-study within seven years.
- Complete the Ph.D.-level core program as an integral part of their program-of-study, as well as additional courses that support their research program and career goals.



## Course Requirements

| Code                                                                       | Title                   | Hours     |
|----------------------------------------------------------------------------|-------------------------|-----------|
| <b>Required Courses</b>                                                    |                         |           |
| BIOS 532                                                                   | Ecosystem Ecology       | 4         |
| BIOS 594                                                                   | Seminar (two semesters) | 2         |
| <b>Electives, Research, and Dissertation</b>                               |                         |           |
| Complete 54 additional credits selected in consultation with your advisor. |                         | 54        |
| <b>Total Hours</b>                                                         |                         | <b>60</b> |

## Master's Programs

- Environmental Studies M.S. (p. 485)
- Forestry M.S. (p. 486)
- Geography M.S. (p. 486)
- Geography M.S. - Cartography and GIS (p. 487)
- Geography M.S. - Community & Environmental Planning (p. 488)
- Geosciences M.S. (p. 489)
- Parks, Tourism and Recreation Management M.S. (p. 491)
- Resource Conservation M.S. (p. 492)
- Resource Conservation M.S. - International Conservation and Development (p. 492)
- Systems Ecology M.S. (p. 494)
- Wildlife Biology M.S. (p. 494)

## Environmental Studies M.S.

The M.S. in Environmental Studies is flexible. Students, with their academic advisors, design their own study programs by choosing from courses within Environmental Studies and throughout the University.

## General Graduate Program Requirements

Graduate School policies and standards can be found on the Graduate School Policies page (p. 440).

The minimum GPA for any graduate program is 3.0. Individual programs may require more than a 3.0 to remain in good standing.

The minimum grade for a course to be accepted toward any master's or doctoral requirement is C. The minimum grade for a course to be accepted toward a certificate program is B-. Individual programs may require higher grades for specific courses.

## Master of Science - Environmental Studies

### Thesis, Professional Paper, or Portfolio

Students have three options for demonstrating their critical and analytical abilities and their written communication skills: thesis, a professional paper, or portfolio. The formulation of a topic is encouraged by April of the first year of study.

#### Thesis Option

Students choosing this option must develop a substantive, original scholarly work that includes either the collection and analysis of data to answer a research question (as in original field research in the natural sciences, a policy analysis in policy studies, or survey research in the social sciences) or the production of a creative, interpretive, or critical

work (as in the humanities or fine arts). Upon completion of the thesis, students are given a one-hour oral examination.

#### Professional Paper Option

Students choosing this option must develop a substantive report directed to a specific audience that demonstrates the student's ability to participate in professional discourse. Upon completion of the professional paper, students are given a one-hour oral examination.

#### Portfolio Option

In consultation with an Environmental Studies advisor, students choosing this option select courses, internship experience(s), and portfolio project(s) directed toward specific career goals. Portfolios include three discrete elements, one of which is an internship or work experience, and demonstrated coherence between these pieces, the student's course of study, and the student's goals. Upon completion of the portfolio, students are given a one-hour oral examination that focuses upon the integrity of each portfolio piece and coherence between the pieces.

### Forming a Graduate Committee

In consultation with the graduate advisor, the student will recruit a graduate committee. The committee must be composed of Montana University System faculty (including emeritus/retired faculty) and/or relevant professionals who serve as faculty affiliates.

- For the thesis and professional paper options, the graduate committee must have at least 3 members with at least one from outside EVST.
- The portfolio option committee must have at least 2 members, one of which must be an EVST faculty member. The other could be from EVST or from outside the department.
- Students are responsible for notifying the EVST Program Director or Administrative Associate of the make-up of their committee one semester prior to the semester they plan to graduate.

### Required Coursework

- Environmental Studies graduate students who do either a thesis or a professional paper must register for at least one credit of ENST 599 or ENSC 599 in the semester during which they defend their manuscript. The minimum number of credits required for graduation with a thesis or professional paper is 33.
- Portfolio-option students must take a total of 36 credits, including a total of 3 credits of ENST 590.
- An approved natural systems ecology is required if a student has not taken a biologically-grounded ecology course(s) as an undergraduate equivalent to ENSC 360.
- Students are required to take at least one 3-credit class from each of four distributional area requirements (our core areas of study):
  - Scientific Approaches: Examines methods and limits of scientific inquiry and critical analysis of information.
  - Policy Approaches: Examines socioeconomic and political processes.
  - Thought & Writing: Explores environmental writing, literature, and relationships between humans and the rest of the natural world.
  - Engagement: Develops leadership, organizational, and participatory skills through experiential learning, civic engagement, or other forms of involvement.
- Students should consult with their advisor about courses that meet these requirements.



| Code                                                                                                                                                                                                                                                                         | Title                 | Hours        |
|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-----------------------|--------------|
| <b>Core Requirements</b>                                                                                                                                                                                                                                                     |                       |              |
| Complete the following course:                                                                                                                                                                                                                                               |                       |              |
| ENST 519                                                                                                                                                                                                                                                                     | Foundations of Change | 1            |
| <b>Electives</b>                                                                                                                                                                                                                                                             |                       |              |
| Complete 32-35 credits of courses chosen in consultation with your advisor. In addition to ENST and ENSC, this program will accept graduate-level courses in subjects including ANTY, CRWR, COMX, ECNS, EDLD, JRNL, LAW, NPAD, NRSM, PHIL, PTRM, PUAD, SOCI, WILD, and WRIT. |                       | 32-35        |
| <b>Total Hours</b>                                                                                                                                                                                                                                                           |                       | <b>33-36</b> |

## Forestry M.S.

### General Graduate Program Requirements

Graduate School policies and standards can be found on the Graduate School Policies page (p. 440).

The minimum GPA for any graduate program is 3.0. Individual programs may require more than a 3.0 to remain in good standing.

The minimum grade for a course to be accepted toward any master’s or doctoral requirement is C. The minimum grade for a course to be accepted toward a certificate program is B-. Individual programs may require higher grades for specific courses.

### Master of Science - Forestry

The specific courses (program of study) that a graduate student enrolls in will be tailored to each individual based on their academic background, professional interests, and the focus of their thesis work. The minimum requirements include:

- At least 30 graduate semester credits for students completing the thesis or professional paper options and 36 credits for students completing the non-thesis option. Specific courses determined by the student’s graduate committee.
- At least 20 credits in coursework (not including thesis or research credits), with at least half (minimum 10 credits) of the 20 coursework credits at the 500-level or above. 400-level courses used to fulfil this requirement must be approved to offered for graduate credit.
- At least 20 credits (including coursework, research, and thesis credits) within the major discipline.
- Students in the thesis or professional paper options may count a maximum of 10 credits of research and/or thesis. Students in the non-thesis option may count up to 4 credits of research an no credits of thesis.
- At least one credit of graduate seminar per semester (FORS, NRSM, PTRM, or WILD 594).
- A research methods course related to the student’s field of study.
- A graduate-level statistics course (or comparable analytical course).
- Thesis or Professional Paper Options:
  - The thesis option includes:
    - A formal research proposal presenting the conceptual and empirical framework of the research.
    - A thesis – written thesis, seminar, and defense.
  - The professional paper option includes:

- A formal project proposal presenting the conceptual and empirical framework of the professional paper.
- A professional paper – written paper, seminar, and defense.

### Course Requirements

In addition to these specific requirements, a list of required/suggested coursework must be approved by the committee no later than the second semester in residence, but earlier if possible. Other suitable courses (e.g., emphasizing analytical skills) can be substituted at the discretion of the student’s committee.

| Code                                                                                                | Title                                   | Hours        |
|-----------------------------------------------------------------------------------------------------|-----------------------------------------|--------------|
| <b>Graduate Seminar</b>                                                                             |                                         |              |
| Complete at least 2 credits of the following courses. Students typically complete 3-5 credits.      |                                         | 2            |
| FORS 594                                                                                            | Graduate Seminar                        |              |
| NRSM 594                                                                                            | Seminar                                 |              |
| PTRM 594                                                                                            | Conservation and Social Science Seminar |              |
| WILD 594                                                                                            | Graduate Seminar in Wildlife Biology    |              |
| <b>Research Methods</b>                                                                             |                                         |              |
| Complete one of the following courses:                                                              |                                         | 3            |
| FORS 505                                                                                            | Sampling Methods                        |              |
| NRSM 500                                                                                            | Conservation and Social Science Methods |              |
| WILD 540                                                                                            | Research Design                         |              |
| <b>Statistics</b>                                                                                   |                                         |              |
| Complete one of the following courses:                                                              |                                         | 3-4          |
| Any Statistics (STAT) or Mathematics (M) course.                                                    |                                         |              |
| FORS 505                                                                                            | Sampling Methods                        |              |
| FORS 538                                                                                            | Ecological Statistics                   |              |
| WILD 562                                                                                            | Wildlife Habitat Modeling               |              |
| WILD 571                                                                                            | Estimation of Demographic Parameters    |              |
| <b>Electives, Research, and Thesis/Professional Paper/Non-Thesis Options</b>                        |                                         |              |
| Complete one of the following options:                                                              |                                         | 22-28        |
| Thesis and Professional Paper Option:                                                               |                                         |              |
| Complete 21-22 credits of graduate-level coursework in consultation with your advisor or committee. |                                         |              |
| Non-Thesis Option:                                                                                  |                                         |              |
| Complete 27-28 credits of graduate-level coursework in consultation with your advisor or committee. |                                         |              |
| <b>Total Hours</b>                                                                                  |                                         | <b>30-36</b> |

## Geography M.S.

### General Graduate Program Requirements

Graduate School policies and standards can be found on the Graduate School Policies page (p. 440).

The minimum GPA for any graduate program is 3.0. Individual programs may require more than a 3.0 to remain in good standing.

The minimum grade for a course to be accepted toward any master’s or doctoral requirement is C. The minimum grade for a course to be accepted toward a certificate program is B-. Individual programs may require higher grades for specific courses.

## Master of Science - Geography

The Master of Science in Geography without a concentration offers the most flexibility and is appropriate for students who are focused on human or physical geography as well as those who have interests in human-environment interactions, climate change, land-use and environmental planning, community resilience, cartography, GIS, and geospatial analysis. Students may tailor the program to their individual interests once they complete the core requirements.

- Choices in the core and elective credits will be selected in consultation with the graduate committee to support the research program and student's professional goals. Coursework must be approved by the committee no later than the second semester in residence, but earlier if possible. Per Graduate School policy:
  - At least 20 of the total credits must be taken within the major discipline.
  - At least 20 of the total credits must be in coursework, not research or thesis.
  - At least half of the coursework credits (minimum 10 credits) must be at the 500 level or above.
  - Courses below the 400 level do not count towards the M.S. course requirements.
  - Up to 10 of the 30 or 36 credits may be taken as thesis (GPHY 599).

### Degree Options

For the M.S. in Geography, students are required to complete one of the following options. There is no minimum number of thesis credits that must be taken for any of the options.

#### Thesis Option

This option requires the completion of 30 credits. The student must successfully complete and defend a thesis or one or more papers (i.e., articles) of publishable quality before an examining committee.

#### Professional Paper Option

This option requires the completion of 30 credits. The student must successfully complete and defend a professional paper or one or more papers (i.e., articles) of publishable quality before an examining committee. The difference between a thesis and a professional paper is that while the thesis is directed toward advances in the discipline, the professional paper may be directed toward advances in the profession. A professional paper may also consist of one or more papers of publishable quality intended for publication in a peer-reviewed journal.

#### Portfolio Option

This option requires the completion of 36 credits. The student must successfully complete a portfolio and written and oral comprehensive examinations.

### Course Requirements

| Code                                                          | Title                                 | Hours |
|---------------------------------------------------------------|---------------------------------------|-------|
| <b>Graduate Research Seminar</b>                              |                                       |       |
| Complete one of the following courses, 1 credit per semester. |                                       | 2     |
| BIOS 594                                                      | Seminar                               |       |
| FORS 594                                                      | Graduate Seminar (1 cr. per semester) |       |
| NRSM 594                                                      | Seminar                               |       |
| WILD 594                                                      | Graduate Seminar in Wildlife Biology  |       |
| <b>Graduate Research Design</b>                               |                                       |       |

|                                        |                                                                                                |   |
|----------------------------------------|------------------------------------------------------------------------------------------------|---|
| Complete one of the following courses: |                                                                                                | 3 |
| GPHY 504 & GPHY 505                    | Research Design in the Geographical Sciences I and Research Design in Geographical Sciences II |   |
| NRSM 500                               | Conservation and Social Science Methods                                                        |   |
| GEO 508                                | Fundamentals of Academic Research                                                              |   |
| WILD 540 & WILD 541                    | Research Design and Research Design Lab                                                        |   |

#### Graduate Methods Course

|                                        |                                    |   |
|----------------------------------------|------------------------------------|---|
| Complete one of the following courses: |                                    | 3 |
| Quantitative methods                   |                                    |   |
| ENSC 474                               | Environmental Analytics            |   |
| FORS 538                               | Ecological Statistics              |   |
| SOCI 563                               | Social Data Analysis               |   |
| STAT 451                               | Statistical Methods I              |   |
|                                        | or STAT 452 Statistical Methods II |   |
| Qualitative methods                    |                                    |   |
| SOCI 561                               | Qualitative Methods                |   |
| Historical or survey methods           |                                    |   |
| Advanced GIS or computer methods       |                                    |   |

#### Additional Graduate Seminar

|                                        |                             |   |
|----------------------------------------|-----------------------------|---|
| Complete one of the following courses: |                             | 3 |
| GPHY 525                               | Advanced Physical Geography |   |
| GPHY 560                               | Seminar in Planning         |   |
| GPHY 580                               | Seminar GIS & Cartography   |   |

#### Electives and Thesis

|                                                                                                                     |       |
|---------------------------------------------------------------------------------------------------------------------|-------|
| Complete 19-25 additional credits chosen in consultation with your faculty advisor according to the selected track. | 19-25 |
|---------------------------------------------------------------------------------------------------------------------|-------|

|                    |              |
|--------------------|--------------|
| <b>Total Hours</b> | <b>30-36</b> |
|--------------------|--------------|

## Geography M.S. - Cartography and GIS

### General Graduate Program Requirements

Graduate School policies and standards can be found on the Graduate School Policies page (p. 440).

The minimum GPA for any graduate program is 3.0. Individual programs may require more than a 3.0 to remain in good standing.

The minimum grade for a course to be accepted toward any master's or doctoral requirement is C. The minimum grade for a course to be accepted toward a certificate program is B-. Individual programs may require higher grades for specific courses.

## Master of Science - Geography; Cartography and GIS Concentration

The Master of Science in Geography with a concentration in Cartography and GIS is appropriate for those whose work is focused on spatial mapping and analysis. Beyond the core requirements specified for the general M.S. (p. 486), an additional 16 credits are required for the concentration (19 if the Methods course is not a GIS class), and electives as needed to complete the 34 to 40 credits for the degree.

- Choices in the core and elective credits will be selected in consultation with the graduate committee to support the research program and student's professional goals. Coursework must be approved by the committee no later than the second semester in residence, but earlier if possible. Per Graduate School policy:
  - At least 20 of the total credits must be taken within the major discipline.
  - At least 20 of the total credits must be in coursework, not research or thesis.
  - At least half of the coursework credits (minimum 10 credits) must be at the 500 level or above.
  - Courses below the 400 level do not count towards the M.S. course requirements.
  - Up to 10 of the 34 or 40 credits may be taken as thesis (GPHY 599).

## Degree Options

For the M.S. in Geography, students are required to complete one of the following options. There is no minimum number of thesis credits that must be taken for any of the options.

### Thesis Option

This option requires the completion of 34 credits. The student must successfully complete and defend a thesis or one or more papers (i.e., articles) of publishable quality before an examining committee.

### Professional Paper Option

This option requires the completion of 34 credits. The student must successfully complete and defend a professional paper or one or more papers (i.e., articles) of publishable quality before an examining committee. The difference between a thesis and a professional paper is that while the thesis is directed toward advances in the discipline, the professional paper may be directed toward advances in the profession. A professional paper may also consist of one or more papers of publishable quality intended for publication in a peer-reviewed journal.

### Portfolio Option

This option requires the completion of 40 credits. The student must successfully complete a portfolio and written and oral comprehensive examinations.

## Course Requirements

| Code                                                          | Title                                                                                          | Hours |
|---------------------------------------------------------------|------------------------------------------------------------------------------------------------|-------|
| <b>Graduate Research Seminar</b>                              |                                                                                                |       |
| Complete one of the following courses, 1 credit per semester: |                                                                                                | 2     |
| BIOS 594                                                      | Seminar                                                                                        |       |
| FORS 594                                                      | Graduate Seminar (1 cr. per semester)                                                          |       |
| NRSM 594                                                      | Seminar                                                                                        |       |
| WILD 594                                                      | Graduate Seminar in Wildlife Biology                                                           |       |
| <b>Graduate Research Design</b>                               |                                                                                                |       |
| Complete one of the following courses:                        |                                                                                                | 3-4   |
| GPHY 504 & GPHY 505                                           | Research Design in the Geographical Sciences I and Research Design in Geographical Sciences II |       |
| NRSM 500                                                      | Conservation and Social Science Methods                                                        |       |
| GEO 508                                                       | Fundamentals of Academic Research                                                              |       |
| WILD 540 & WILD 541                                           | Research Design and Research Design Lab                                                        |       |

### Graduate Research Methods

|                                        |                                    |   |
|----------------------------------------|------------------------------------|---|
| Complete one of the following courses: |                                    | 3 |
| Quantitative methods                   |                                    |   |
| ENSC 474                               | Environmental Analytics            |   |
| FORS 538                               | Ecological Statistics              |   |
| SOCI 563                               | Social Data Analysis               |   |
| STAT 451                               | Statistical Methods I              |   |
|                                        | or STAT 452 Statistical Methods II |   |
| Qualitative methods                    |                                    |   |
| SOCI 561                               | Qualitative Methods                |   |
| Historical or survey methods           |                                    |   |
| Advanced GIS or computer methods       |                                    |   |

### Additional Graduate Seminar

|                                        |                             |   |
|----------------------------------------|-----------------------------|---|
| Complete one of the following courses: |                             | 3 |
| GPHY 525                               | Advanced Physical Geography |   |
| GPHY 560                               | Seminar in Planning         |   |
| GPHY 580                               | Seminar GIS & Cartography   |   |

### Concentration Requirements

|                                        |                            |   |
|----------------------------------------|----------------------------|---|
| Complete all of the following courses: |                            |   |
| GPHY 487                               | Remote Sensing/Raster GIS  | 3 |
| GPHY 488                               | Applications of GIS        | 3 |
| GPHY 489                               | Cartography/GIS Laboratory | 1 |

### Concentration Electives

|                                              |                                |   |
|----------------------------------------------|--------------------------------|---|
| Complete 9 credits of the following courses: |                                | 9 |
| FORS 505                                     | Sampling Methods               |   |
| GPHY 468                                     | Community & Regional Analysis  |   |
| GPHY 469                                     | Planning & Analysis Laboratory |   |
| GPHY 481                                     | Advanced Cartographic Design   |   |
| GPHY 485                                     | Internet GIS                   |   |
| GPHY 489                                     | Cartography/GIS Laboratory     |   |
| GPHY 587                                     | Image Analysis & Modeling      |   |
| GPHY 589                                     | Cartography/GIS Laboratory     |   |
| GPHY 598                                     | Internship                     |   |
| WILD 562                                     | Wildlife Habitat Modeling      |   |

### Electives and Thesis

|                                                                                                                    |  |      |
|--------------------------------------------------------------------------------------------------------------------|--|------|
| Complete 7-12 additional credits chosen in consultation with your faculty advisor according to the selected track. |  | 7-12 |
|--------------------------------------------------------------------------------------------------------------------|--|------|

|                    |              |
|--------------------|--------------|
| <b>Total Hours</b> | <b>34-40</b> |
|--------------------|--------------|

# Geography M.S. - Community & Environmental Planning

## General Graduate Program Requirements

Graduate School policies and standards can be found on the Graduate School Policies page (p. 440).

The minimum GPA for any graduate program is 3.0. Individual programs may require more than a 3.0 to remain in good standing.

The minimum grade for a course to be accepted toward any master's or doctoral requirement is C. The minimum grade for a course to be accepted toward a certificate program is B-. Individual programs may require higher grades for specific courses.

## Master of Science - Geography; Community and Environmental Planning Concentration

The Master of Science in Geography with a concentration in Community and Environmental Planning is appropriate for those interested in working in community planning, hazard mitigation, and land-use planning. Beyond the core requirements specified for the general M.S. (p. 486), an additional 23 credits are required.

- Choices in the core and of remaining credits will be selected in consultation with the graduate committee to support the research program and student's professional goals. Coursework must be approved by the committee no later than the second semester in residence, but earlier if possible. Per Graduate School policy:
  - At least 20 of the total credits must be taken within the major discipline.
  - At least 20 of the total credits must be in coursework, not research or thesis.
  - At least half of the coursework credits (minimum 10 credits) must be at the 500 level or above.
  - Courses below the 400 level do not count towards the M.S. course requirements.
  - Up to 10 of the 33 or 39 credits may be taken as thesis (GPHY 599).

### Degree Options

For the M.S. in Geography, students are required to complete one of the following options. There is no minimum number of thesis credits that must be taken for any of the options.

#### Thesis Option

This option requires the completion of 34 credits. The student must successfully complete and defend a thesis or one or more papers (i.e., articles) of publishable quality before an examining committee.

#### Professional Paper Option

This option requires the completion of 34 credits. The student must successfully complete and defend a professional paper or one or more papers (i.e., articles) of publishable quality before an examining committee. The difference between a thesis and a professional paper is that while the thesis is directed toward advances in the discipline, the professional paper may be directed toward advances in the profession. A professional paper may also consist of one or more papers of publishable quality intended for publication in a peer-reviewed journal.

#### Portfolio Option

This option requires the completion of 39 credits. The student must successfully complete a portfolio and written and oral comprehensive examinations.

### Course Requirements

| Code                                                          | Title                                 | Hours |
|---------------------------------------------------------------|---------------------------------------|-------|
| <b>Graduate Research Seminar</b>                              |                                       |       |
| Complete one of the following courses, 1 credit per semester. |                                       | 2     |
| BIOS 594                                                      | Seminar                               |       |
| FORS 594                                                      | Graduate Seminar (1 cr. per semester) |       |
| NRSM 594                                                      | Seminar                               |       |
| WILD 594                                                      | Graduate Seminar in Wildlife Biology  |       |
| <b>Graduate Research Design</b>                               |                                       |       |

|                                        |                                                                                                |   |
|----------------------------------------|------------------------------------------------------------------------------------------------|---|
| Complete one of the following courses: |                                                                                                | 3 |
| GPHY 504 & GPHY 505                    | Research Design in the Geographical Sciences I and Research Design in Geographical Sciences II |   |
| NRSM 500                               | Conservation and Social Science Methods                                                        |   |
| GEO 508                                | Fundamentals of Academic Research                                                              |   |
| WILD 540 & WILD 541                    | Research Design and Research Design Lab                                                        |   |

#### Graduate Research Methods

|                                        |                                    |   |
|----------------------------------------|------------------------------------|---|
| Complete one of the following courses: |                                    | 3 |
| Quantitative methods                   |                                    |   |
| ENSC 474                               | Environmental Analytics            |   |
| FORS 538                               | Ecological Statistics              |   |
| SOCI 563                               | Social Data Analysis               |   |
| STAT 451                               | Statistical Methods I              |   |
|                                        | or STAT 452 Statistical Methods II |   |
| Qualitative methods                    |                                    |   |
| SOCI 561                               | Qualitative Methods                |   |
| Historical or survey methods           |                                    |   |
| Advanced GIS or computer methods       |                                    |   |

#### Additional Graduate Seminar

|                                        |                             |   |
|----------------------------------------|-----------------------------|---|
| Complete one of the following courses: |                             | 3 |
| GPHY 525                               | Advanced Physical Geography |   |
| GPHY 560                               | Seminar in Planning         |   |
| GPHY 580                               | Seminar GIS & Cartography   |   |

#### Concentration Requirements

|                                        |                                 |   |
|----------------------------------------|---------------------------------|---|
| Complete all of the following courses: |                                 |   |
| GPHY 465                               | Planning Principles & Processes | 3 |
| GPHY 466                               | Environmental Planning          | 3 |
| GPHY 468                               | Community & Regional Analysis   | 3 |
| GPHY 469                               | Planning & Analysis Laboratory  | 1 |
| GPHY 560                               | Seminar in Planning             | 3 |
| GPHY 561                               | Land Use Planning Law           | 3 |
| GPHY 564                               | Planning Design                 | 3 |

#### Concentration Electives

|                                              |                          |   |
|----------------------------------------------|--------------------------|---|
| Complete 4 credits of the following courses: |                          | 4 |
| GPHY 433                                     | Community Resilience     |   |
| GPHY 562                                     | Land Use Planning Clinic |   |
| GPHY 598                                     | Internship               |   |

#### Electives and Thesis

|                                                                                                                   |     |
|-------------------------------------------------------------------------------------------------------------------|-----|
| Complete 0-5 additional credits chosen in consultation with your faculty advisor according to the selected track. | 0-5 |
|-------------------------------------------------------------------------------------------------------------------|-----|

**Total Hours** **34-39**

## Geosciences M.S.

### General Graduate Program Requirements

Graduate School policies and standards can be found on the Graduate School Policies page (p. 440).

The minimum GPA for any graduate program is 3.0. Individual programs may require more than a 3.0 to remain in good standing.

The minimum grade for a course to be accepted toward any master's or doctoral requirement is C. The minimum grade for a course to be accepted toward a certificate program is B-. Individual programs may require higher grades for specific courses.

## Master of Science - Geosciences

The Master of Science in Geosciences 30 credits of graduate-level coursework. The student's committee, however, may require additional coursework beyond the minimum of 30 credits as needed for the student's program. A minimum of 24 credits of formal coursework and 6 thesis credits must be completed. The following additional constraints apply:

- At least 14 of the formal course credits must be Geosciences courses (i.e., up to 14 credits from other departments can be applied, if committee approved);
- At least half (i.e., 12) of the formal course credits must be at the 500 or 600 level;
- No more than 6 credits of Research (GEO 590) may be applied toward the total of 30 credits required for the degree;
- Seminars (GEO 594) may be taken more than once with the consent of the instructor.
- All courses used to meet graduation requirements must be at the graduate level.
- Cognate science courses taken outside the Geosciences Department may be required depending on the field of study, advisor, or research area. Cognate science courses are generally taken in mathematics, physics, chemistry, biology or computer science. Some courses in other units may be suitable for some fields of study. The nature of the cognate coursework will be decided in consultation with the research committee. All students are also required to take GEO 508 during their first fall term in residence.
- All degree requirements for the Master's degree, including the use of transfer and nondegree credits, must be completed within five years. To apply courses taken outside of this time limit, course content must be recertified for currency of knowledge.

### Required Coursework

| Code                                                                                                | Title                             | Hours     |
|-----------------------------------------------------------------------------------------------------|-----------------------------------|-----------|
| <b>Complete all of the following courses:</b>                                                       |                                   |           |
| GEO 508                                                                                             | Fundamentals of Academic Research | 3         |
| Complete 27 credits of Geoscience (GEO) and other courses chosen in consultation with your advisor. |                                   | 27        |
| <b>Total Hours</b>                                                                                  |                                   | <b>30</b> |

### Thesis Committees

A thesis committee must include the major advisor and at least two additional members of the UM faculty: one more from Geosciences (active or emeritus) and one from a department other than Geosciences. Optional members beyond the latter three may be added from UM or other institutions provided their credentials are approved by the graduate school. This committee is responsible for evaluating the student's research and for providing supplemental instruction in their respective research specialties to complement the primary training of the student. Members of the committee should be selected by the pertinence of their expertise in the intended course of study. Master of Science degree seeking students who fail to establish and maintain a committee after one year will be dismissed.

### Thesis Proposal

A thesis research proposal must be fully approved by the end of the second semester of study. The proposal must include a concise description of the scientific problem to be addressed, a summary of current research relevant to that problem, the importance of the problem, and a description of the experimental design or methodology to be used. This content should demonstrate basic scientific literacy as well as familiarity with the specialty chosen. An acceptable thesis may consist of one or more papers submitted or ready for submission to peer-reviewed scientific journals or a single longer document presenting the thesis research.

The first step of the proposal process is for the thesis committee to approve and sign the proposal draft. The committee-approved draft is then submitted by April 15 to undergo review by all faculty of the department. All proposals are discussed at a departmental faculty meeting within 7-10 days after April 15. The faculty will either approve as written, approve with changes, or not approve each proposal. If a proposal is not approved, a plan of action will be stated by the faculty which may include resubmission for approval after revision. Missing the deadline can result in dismissal from the program; requests for extensions or alterations to the timeline must be submitted to the Department Chair. If more than half the faculty do not approve a second revised submission, the student will be dismissed from the program.

### The Thesis

The thesis must present the results of original scientific research in the field of specialization in an appropriate scientific style and format. Length and content requirements are subject to the requirements of the advisor and the committee. However, an advanced degree in the physical sciences requires a demonstration of competence in scientific method as well as familiarity with the current state of knowledge in a specialty.

### Thesis Defense

The completed research and thesis must be defended to the committee and approved by all members. In case of failure, one repeat examination is permitted. Defense of the written thesis also consists of a public oral presentation to students, faculty, and other interested members of the public and an oral examination conducted by the faculty. The presentation typically includes 40 minutes allotted to the presentation and several minutes for questions from the audience for a total time limit of 50 minutes. The final exam follows the public talk. The exam includes the defense of the thesis as well as questions designed to test competence in the course of study. The exam is conducted by the committee and chaired by the advisor, but the exam is open to interested members of the university faculty as well. The defense should be held during the period of a regular autumn or spring semester and must be completed at least 15 days before commencement. However, the defense can be held during the summer with the approval of the research committee if normal semester deadlines cannot be met.

There are three possible outcomes of the exam:

1. Pass with thesis accepted as it stands.
2. Pass with minor revisions required on thesis.
3. Fail or major revision required on thesis.

After a failure, a second defense is allowed after two weeks, but not more than six weeks, excluding semester breaks. Only one repeat exam is permitted. A second failure results in the student being dismissed from the program.



## Program Time Limit

The Graduate School requires that the degree be completed within five years of beginning coursework at the University of Montana. A leave of absence does not waive these time limits except when the leave is granted prior to commencing coursework. A leave of absence or delayed admission requires a "Request for Leave of Absence from the M.S. Program" form from the Graduate School. Such a leave of absence may be granted for a maximum of one calendar year. The Graduate School, upon receipt of a written request and with agreement from the Geosciences Department, may grant a twelve-month extension to a leave of absence.

## Intellectual Property

The preservation of samples and data collected during thesis research and the publication of research findings is of the highest priority. Therefore, raw data and samples generated as part of research projects supported by faculty grants and/or support from the Department of Geosciences will reside in the Department. The student must develop a plan for the archiving and transferring of data and samples with his/her advisor prior to finishing research and writing the thesis. The advisor has the responsibility to explain to the student any restrictions or dispensations on intellectual property rights of the data/information generated during the student's research. The advisor and student should consult to determine content, authorship, and acknowledgements before papers are submitted for publication.

## Application for Graduation

At least one semester before the degree is to be awarded, the student must submit three copies of the Application for Graduation form (<https://www.umt.edu/grad/docs/forms/graduation-app.pdf>) to the Graduate School and pay a graduation fee. See the Calendar of Deadlines (<https://www.umt.edu/grad/current-students/completing-degree/deadlines/default.php>) for the exact dates to file paperwork. The Graduate School will conduct a degree audit and send two copies of this form back to the Geosciences Department (one departmental copy and one student copy) early in the semester of graduation. The faculty advisor and student should note any problems and rectify them at least two weeks prior to the end of the final semester by using a Graduation Amendment Form. If the student fails to meet the original graduation date as requested on the form then the student may request the application be reactivated for the following semester by notifying the Graduate School one semester prior to the revised completion date.

After the defense, the successful candidate must follow the Graduate School rules for submitting the thesis (<https://www.umt.edu/grad/current-students/completing-degree/masters-degree/default.php>). Formatting guidelines for the thesis are available at the same site. In addition, the student must complete the following tasks:

1. Prepare one hard copy of the thesis for each research committee member if requested. The copy should be bound according to the requirements of the thesis advisor. Some committee members may prefer only an electronic copy.
2. Where appropriate, the advisor may require a representative collection of samples, specimens, thin sections or other materials, as well as copies of field and laboratory notes, for the departmental collections and for documentation of funded research.
3. Clean up all lab and office space and return any departmental equipment and keys (remember to claim key deposits!).

4. Return any books or other items borrowed from the faculty.
5. Provide forwarding contact information to the department secretary.

## Parks, Tourism and Recreation Management M.S.

### General Graduate Program Requirements

Graduate School policies and standards can be found on the Graduate School Policies page (p. 440).

The minimum GPA for any graduate program is 3.0. Individual programs may require more than a 3.0 to remain in good standing.

The minimum grade for a course to be accepted toward any master's or doctoral requirement is C. The minimum grade for a course to be accepted toward a certificate program is B-. Individual programs may require higher grades for specific courses.

### Master of Science - Parks, Tourism, and Recreation Management

The specific courses (program of study) that a graduate student enrolls in will be tailored to each individual, based on their academic background, professional interest, and the focus of their thesis work. The minimum requirements for the M.S. Degree include:

- At least 30 graduate semester credits. Specific courses determined by the student's graduate committee.
- At least 20 credits in coursework (not including thesis or research credits), with at least half (minimum 10 credits) of the 20 coursework credits at the 500-level or above. 400-level courses used to fulfil this requirement must include a "graduate increment".
- At least 20 credits (including coursework, research, and thesis credits) within the major discipline.
- A maximum of 10 credits of research and/or thesis.
- At least one credit of graduate seminar per semester (FORS, NRSM, PTRM, or WILD 594).
- A research methods course related to the student's field of study.
- A graduate-level statistics course (or comparable analytical course).
- Thesis or Professional Paper Options:
  - The thesis option includes:
    - A formal research proposal presenting the conceptual and empirical framework of the research.
    - A thesis – written thesis, seminar, and defense.
  - The professional paper option includes:
    - A formal project proposal presenting the conceptual and empirical framework of the professional paper.
    - A professional paper – written paper, seminar, and defense.

### Course Requirements

In addition to these specific requirements, a list of required/suggested coursework must be approved by the committee no later than the second semester in residence, but earlier if possible. Other suitable courses (e.g., emphasizing analytical skills) can be substituted at the discretion of the student's committee.

| Code                                                                                             | Title                                   | Hours     |
|--------------------------------------------------------------------------------------------------|-----------------------------------------|-----------|
| <b>Graduate Seminar</b>                                                                          |                                         |           |
| Complete at least 2 credits of the following courses. Students typically complete 3-5 credits.   |                                         | 2         |
| FORS 594                                                                                         | Graduate Seminar                        |           |
| NRSM 594                                                                                         | Seminar                                 |           |
| PTRM 594                                                                                         | Conservation and Social Science Seminar |           |
| WILD 594                                                                                         | Graduate Seminar in Wildlife Biology    |           |
| <b>Research Methods</b>                                                                          |                                         |           |
| Complete one of the following courses:                                                           |                                         | 3         |
| FORS 505                                                                                         | Sampling Methods                        |           |
| NRSM 500                                                                                         | Conservation and Social Science Methods |           |
| WILD 540                                                                                         | Research Design                         |           |
| <b>Statistics</b>                                                                                |                                         |           |
| Complete one of the following courses:                                                           |                                         | 3         |
| Any Statistics (STAT) or Mathematics (M) course.                                                 |                                         |           |
| FORS 505                                                                                         | Sampling Methods                        |           |
| FORS 538                                                                                         | Ecological Statistics                   |           |
| WILD 562                                                                                         | Wildlife Habitat Modeling               |           |
| WILD 571                                                                                         | Estimation of Demographic Parameters    |           |
| <b>Electives, Research, and Thesis or Professional Paper</b>                                     |                                         |           |
| Complete 22 credits of graduate-level coursework in consultation with your advisor or committee. |                                         | 22        |
| <b>Total Hours</b>                                                                               |                                         | <b>30</b> |

## Resource Conservation M.S.

### General Graduate Program Requirements

Graduate School policies and standards can be found on the Graduate School Policies page (p. 440).

The minimum GPA for any graduate program is 3.0. Individual programs may require more than a 3.0 to remain in good standing.

The minimum grade for a course to be accepted toward any master's or doctoral requirement is C. The minimum grade for a course to be accepted toward a certificate program is B-. Individual programs may require higher grades for specific courses.

### Master of Science - Resource Conservation

The specific courses (program of study) that a graduate student enrolls in will be tailored to each individual, based on their academic background, professional interests, and the focus of their thesis work. However, the minimum requirements for the M.S. Degree include:

- 30 graduate semester credits beyond the Bachelor's degree.
- At least 20 of the total credits must be taken within the major discipline.
- At least 20 of the total credits must be in coursework and at least half of the coursework credits (minimum 10 credits) must be at the 500-level or above. Courses below the 400-level do not count towards the M.S. course requirements.
- Up to 10 of the 30 credits may be taken as research (699) and/or thesis (697).

- Enroll in one credit of graduate seminar per year. (Requirement may be waived by faculty advisor in favor of a different course/seminar if there is a time conflict.)
- Complete a research methods course related to the field of study
- At least one course in graduate level statistics (or comparable analytical course) at the university.
- Thesis or Professional Paper Options:
  - The thesis option includes:
    - A formal research proposal presenting the conceptual and empirical framework of the research.
    - A thesis – written thesis, seminar, and defense.
  - The professional paper option includes:
    - A formal project proposal presenting the conceptual and empirical framework of the professional paper.
    - A professional paper – written paper, seminar, and defense.

### Course Requirements

In addition to these specific requirements, a list of required/suggested coursework must be approved by the committee no later than the second semester in residence, but earlier if possible. Other suitable courses (e.g., emphasizing analytical skills) can be substituted at the discretion of the student's committee.

| Code                                                                                                | Title                                   | Hours     |
|-----------------------------------------------------------------------------------------------------|-----------------------------------------|-----------|
| <b>Graduate Seminar</b>                                                                             |                                         |           |
| Complete at least 2 credits of the following courses. Students typically complete 3-5 credits.      |                                         | 2         |
| FORS 594                                                                                            | Graduate Seminar                        |           |
| NRSM 594                                                                                            | Seminar                                 |           |
| PTRM 594                                                                                            | Conservation and Social Science Seminar |           |
| WILD 594                                                                                            | Graduate Seminar in Wildlife Biology    |           |
| <b>Research Methods</b>                                                                             |                                         |           |
| Complete one of the following courses:                                                              |                                         | 3         |
| FORS 505                                                                                            | Sampling Methods                        |           |
| NRSM 500                                                                                            | Conservation and Social Science Methods |           |
| WILD 540                                                                                            | Research Design                         |           |
| <b>Statistics</b>                                                                                   |                                         |           |
| Complete one of the following courses:                                                              |                                         | 1-4       |
| Any Statistics (STAT) or Mathematics (M) course.                                                    |                                         |           |
| FORS 505                                                                                            | Sampling Methods                        |           |
| FORS 538                                                                                            | Ecological Statistics                   |           |
| WILD 562                                                                                            | Wildlife Habitat Modeling               |           |
| WILD 571                                                                                            | Estimation of Demographic Parameters    |           |
| <b>Electives, Research, and Thesis or Professional Paper</b>                                        |                                         |           |
| Complete 21-24 credits of graduate-level coursework in consultation with your advisor or committee. |                                         | 21-24     |
| <b>Total Hours</b>                                                                                  |                                         | <b>30</b> |

## Resource Conservation M.S. - International Conservation and Development

International Conservation and Development (ICD) is a concentration within the M.S. in Resource Conservation that addresses the ecological and social aspects of environmental change, biodiversity conservation,

and rural development. ICD allows students to pursue independent conservation and development projects through international professional field assignments. The ICD core curriculum and overseas experience integrate biophysical and social dimensions of land and resource management in the context economic development and social justice. Defining features of ICD include:

- Opportunity to combine graduate coursework with international field research;
- Flexibility to identify and develop independent projects;
- Committed, interdisciplinary faculty (<https://www.cfc.umt.edu/grad/icd/faculty.php>);
- An integrated core curriculum;
- Close collaboration among a cohort of graduate students;
- The M.S. in Resource Conservation with a concentration in International Conservation and Development

ICD students have addressed a wide range of issues around the world, including protected area management in Bhutan, community conservation in Belize, watershed management in Nicaragua, non-timber forest products management in Ethiopia, agroforestry in Zambia, reduced impact logging in Bolivia, and wildlife conservation in Mongolia. Students utilize a variety of approaches and generate diverse products based on their fieldwork, including extension education materials, field guides and peer-reviewed publications. 74 students have completed ICD studies, and program graduates are employed by international and domestic organizations in both the public and private sectors, including Conservation International, WOOE, USAID, the US Forest Service, and international consulting firms, while others have completed doctoral studies and are now university faculty members.

## General Graduate Program Requirements

Graduate School policies and standards can be found on the Graduate School Policies page (p. 440).

The minimum GPA for any graduate program is 3.0. Individual programs may require more than a 3.0 to remain in good standing.

The minimum grade for a course to be accepted toward any master's or doctoral requirement is C. The minimum grade for a course to be accepted toward a certificate program is B-. Individual programs may require higher grades for specific courses.

## Master of Science - Resource Conservation; International Conservation and Development Concentration

The ICD concentration involves completion of a core curriculum, additional coursework in an area of academic and professional interest, and completion of an international assignment with an international conservation and development organization or the US Peace Corps.

Specialized coursework is available within the College of Forestry and Conservation in broad disciplines of protected area management, environmental sciences, forest management, watershed management, wildlife biology, range management, recreation management, and remote sensing/geographic information systems. In addition, students can complete relevant coursework in any department or program at UM, including Anthropology, Biological Sciences, Conflict Resolution, Environmental Studies, Geography, and Sociology.

The specific courses (program of study) that a graduate student enrolls in will be tailored to each individual, based on their academic background, professional interests, and the focus of their thesis work. However, the minimum requirements for the M.S. Degree include:

- 30 graduate semester credits beyond the Bachelor's degree.
- At least 20 of the total credits must be taken within the major discipline.
- At least 20 of the total credits must be in coursework and at least half of the coursework credits (minimum 10 credits) must be at the 500-level or above. Courses below the 400-level do not count towards the M.S. course requirements.
- Up to 10 of the 30 credits may be taken as research (699) and/or thesis (697).
- Enroll in one credit of graduate seminar per year. (Requirement may be waived by faculty advisor in favor of a different course/seminar if there is a time conflict.)
- Complete a research methods course related to the field of study
- At least one course in graduate level statistics (or comparable analytical course) at the university.
- Thesis or Professional Paper Options:
  - The thesis option includes:
    - A formal research proposal presenting the conceptual and empirical framework of the research.
    - A thesis – written thesis, seminar, and defense.
  - The professional paper option includes:
    - A formal project proposal presenting the conceptual and empirical framework of the professional paper.
    - A professional paper – written paper, seminar, and defense.

## Course Requirements

| Code                                                                                           | Title                                    | Hours |
|------------------------------------------------------------------------------------------------|------------------------------------------|-------|
| <b>Core Courses</b>                                                                            |                                          |       |
| Complete all of the following courses:                                                         |                                          |       |
| NRSM 571                                                                                       | International Conservation & Development | 3     |
| NRSM 575                                                                                       | Environment & International Development  | 3     |
| <b>Graduate Seminar</b>                                                                        |                                          |       |
| Complete at least 2 credits of the following courses. Students typically complete 3-5 credits. |                                          | 2     |
| FORS 594                                                                                       | Graduate Seminar                         |       |
| NRSM 594                                                                                       | Seminar                                  |       |
| PTRM 594                                                                                       | Conservation and Social Science Seminar  |       |
| WILD 594                                                                                       | Graduate Seminar in Wildlife Biology     |       |
| <b>Research Methods</b>                                                                        |                                          |       |
| Complete one of the following courses:                                                         |                                          | 3     |
| FORS 505                                                                                       | Sampling Methods                         |       |
| NRSM 500                                                                                       | Conservation and Social Science Methods  |       |
| WILD 540                                                                                       | Research Design                          |       |
| <b>Statistics</b>                                                                              |                                          |       |
| Complete one of the following courses:                                                         |                                          | 3-4   |
| Any Statistics (STAT) or Mathematics (M) course.                                               |                                          |       |
| FORS 505                                                                                       | Sampling Methods                         |       |
| FORS 538                                                                                       | Ecological Statistics                    |       |
| WILD 562                                                                                       | Wildlife Habitat Modeling                |       |
| WILD 571                                                                                       | Estimation of Demographic Parameters     |       |
| <b>Electives, Research, and Thesis/Professional Paper/Portfolio</b>                            |                                          |       |

|                                                                                                     |              |
|-----------------------------------------------------------------------------------------------------|--------------|
| Complete 16-22 credits of graduate-level coursework in consultation with your advisor or committee. | 16-22        |
| <b>Total Hours</b>                                                                                  | <b>30-36</b> |

## Systems Ecology M.S.

Housed in the W.A. Franke College of Forestry and Conservation (<http://www.cfc.umn.edu/default.php>), Systems Ecology is an intercollegiate graduate degree program that emphasizes interdisciplinary approaches to understanding ecological and human systems. Systems Ecology is an ideal fit for students interested in understanding the biological, physical, chemical, and human processes that shape social-ecological systems across spatial and temporal scales. Choose Systems Ecology for an interdisciplinary approach to the study of ecological systems that focuses on interactions and transactions within and among biological systems.

Systems Ecology has a diverse faculty, a unique graduate curriculum, and each student does their own independent thesis work. This program brings together collaborators from across the UM campus. Both the M.S. and Ph.D. programs promote an understanding of ecological systems and problem solving, provides students with knowledge about linkages between natural and social domains at multiple scales, and helps students sharpen the skills they need to engage in an increasingly complex world.

## General Graduate Program Requirements

Graduate School policies and standards can be found on the Graduate School Policies page (p. 440).

The minimum GPA for any graduate program is 3.0. Individual programs may require more than a 3.0 to remain in good standing.

The minimum grade for a course to be accepted toward any master's or doctoral requirement is C. The minimum grade for a course to be accepted toward a certificate program is B-. Individual programs may require higher grades for specific courses.

## Master of Science - Systems Ecology

Students in the Master of Science in Systems Ecology must:

- Complete a committee-approved program-of-study composed of at least 30 semester credits of graduate-level coursework. As many as 10 credits may be research or thesis (BIOS 590/BIOS 599), and at least 10 credits of the non-thesis coursework must be at the 500-level or above.
- Complete their program-of-study within five years.
- Successfully write and defend a systems-ecology-oriented thesis.
- Complete a condensed core program in systems ecology. Additional courses will be selected in consultation with the graduate committee to support the research program and student's career goals.

### Required Coursework

| Code                                   | Title                   | Hours |
|----------------------------------------|-------------------------|-------|
| <b>Required Courses</b>                |                         |       |
| Complete all of the following courses: |                         |       |
| BIOS 532                               | Ecosystem Ecology       | 4     |
| BIOS 594                               | Seminar (two semesters) | 2     |
| <b>Electives, Research, and Thesis</b> |                         |       |

|                                                                                            |           |
|--------------------------------------------------------------------------------------------|-----------|
| Complete 24 credits of graduate-level coursework chosen in consultation with your advisor. | 24        |
| <b>Total Hours</b>                                                                         | <b>30</b> |

## Wildlife Biology M.S.

### General Graduate Program Requirements

Graduate School policies and standards can be found on the Graduate School Policies page (p. 440).

The minimum GPA for any graduate program is 3.0. Individual programs may require more than a 3.0 to remain in good standing.

The minimum grade for a course to be accepted toward any master's or doctoral requirement is C. The minimum grade for a course to be accepted toward a certificate program is B-. Individual programs may require higher grades for specific courses.

## Master of Science - Wildlife Biology

- Students in the Master of Science in Wildlife Biology must complete at least 30 graduate semester credits. The only required course for all is two semesters of WILD 594. Other courses are to be determined by the student, his/her faculty advisor, and graduate committee. The program limits course requirements to allow students to maximize the relevance of their degree coursework to their personal research interests.
- At least 20 credits in coursework (not including thesis or research credits) with at least half (minimum 10 credits) of the 20 coursework credits must be taken at the 500-level or above.
- This degree requires the demonstration of distinguished scholarship in a thesis based on original and creative work. It is not granted merely as a certificate of faithful performance of a prescribed program of studies and research. This degree is designed to provide an opportunity for students to receive specialized education in fish and wildlife ecology. It involves investigation and analysis of scientific, technical, or managerial subjects.

### Thesis and Professional Paper Options

Students must complete one of the following options:

#### Thesis Option

- No more than 10 of the credits can be research/thesis credits.
- Of the remaining 20 course credits, at least half must be at the 500-level or above.
- The thesis option includes:
  - A research statement – a short written description of preliminary research ideas.
  - A research proposal – a formal research proposal presenting the conceptual and empirical framework of the research.
  - A thesis - a written paper, seminar, and defense.

#### Professional Paper Option

- Students require the approval of the faculty to be allowed to complete this option.
- No more than 10 of the credits can be research/thesis credits.
- Of the remaining 20 course credits, at least half must be at the 500-level or above.
- The professional paper option includes:



- An objective statement – a short written description of preliminary concepts/ideas of the professional paper.
- A project proposal – a formal workplan presenting the conceptual framework of the professional paper.
- A professional paper – a written paper, seminar, and defense

## Course Requirements

| Code                                                                 | Title                                                | Hours     |
|----------------------------------------------------------------------|------------------------------------------------------|-----------|
| <b>Graduate Seminar</b>                                              |                                                      |           |
| Complete the following course:                                       |                                                      |           |
| WILD 594                                                             | Graduate Seminar in Wildlife Biology (two semesters) | 2         |
| <b>Electives, Research, and Thesis or Professional Paper Options</b> |                                                      |           |
| Complete 28 credits selected in consultation with your advisor.      |                                                      | 28        |
| <b>Total Hours</b>                                                   |                                                      | <b>30</b> |

## Graduate Certificates

- Natural Resource Conflict Resolution Graduate Certificate (p. 495)
- Protected Area Management Graduate Certificate (p. 496)
- Water Energy Food Nexus Graduate Certificate (p. 496)
- Wilderness Management Graduate Certificate (p. 496)

## Natural Resource Conflict Resolution Graduate Certificate

The University of Montana Center for Natural Resources and Environmental Policy directs an interdisciplinary Natural Resource Conflict Resolution Program – the only graduate-level program in the nation specifically designed to provide students a working knowledge of the theoretical and practical aspects of preventing and resolving disputes related to the integration of social, economic, and environmental interests. The program is co-sponsored by University of Montana Graduate School (<http://www.umt.edu/grad/>), School of Business Administration (<http://www.business.umt.edu/>), W.A. Franke College of Forestry and Conservation (<http://www.cfc.umt.edu/>), School of Law (<http://www.umt.edu/law/>), and College of Humanities and Sciences (<http://hs.umt.edu/hs/>). It is administered by the W.A. Franke College of Forestry and Conservation (<https://www.cfc.umt.edu/default.php>) and directed by the Center for Natural Resource and Environmental Policy (<https://naturalresourcespolicy.org/>).

## General Graduate Program Requirements

Graduate School policies and standards can be found on the Graduate School Policies page (p. 440).

The minimum GPA for any graduate program is 3.0. Individual programs may require more than a 3.0 to remain in good standing.

The minimum grade for a course to be accepted toward any master's or doctoral requirement is C. The minimum grade for a course to be accepted toward a certificate program is B-. Individual programs may require higher grades for specific courses.

## Graduate Certificate - Natural Resource Conflict Resolution

### Required Courses

| Code                                                                                                                                    | Title                                             | Hours |
|-----------------------------------------------------------------------------------------------------------------------------------------|---------------------------------------------------|-------|
| <b>Complete all of the following courses:</b>                                                                                           |                                                   |       |
| LAW 613/<br>ENST 513/NRSM<br>513                                                                                                        | Natural Resource Conflict Resolution              | 3     |
| NRSM 515                                                                                                                                | Collaborative Skills for Natural Resource Leaders | 3     |
| or ENST 515                                                                                                                             | Environmental Negotiation Mediation               |       |
| ENST/NRSM 579                                                                                                                           | Practicum in Collaborative Conservation           | 3     |
| <b>Natural Resource Governance Elective</b>                                                                                             |                                                   |       |
| Complete three credits of the following courses. Other courses may apply to this requirement with the approval of the program director. |                                                   | 3     |
| ENST 563                                                                                                                                | Introduction to Environmental Law                 |       |
| GP HY 465                                                                                                                               | Planning Principles & Processes                   |       |
| GP HY 466                                                                                                                               | Environmental Planning                            |       |
| LAW 539                                                                                                                                 | International Environmental Law                   |       |
| LAW 619                                                                                                                                 | American Indian Natural Resource Law              |       |
| LAW 650                                                                                                                                 | Introduction to Environmental Law                 |       |
| LAW 654                                                                                                                                 | Public Land & Resource Law                        |       |
| LAW 663                                                                                                                                 | Water Law                                         |       |
| LAW 665                                                                                                                                 | Administrative Law                                |       |
| LAW 678                                                                                                                                 | Renewable Energy                                  |       |
| LAW 687                                                                                                                                 | Land Use Planning Law                             |       |
| NRSM 422                                                                                                                                | Natural Resources Policy                          |       |
| NRSM 427                                                                                                                                | Water Policy                                      |       |
| NRSM 475                                                                                                                                | Environment & International Development           |       |
| NRSM 526                                                                                                                                | Climate and Society                               |       |
| NRSM 570                                                                                                                                | Political Ecology                                 |       |
| NRSM 574                                                                                                                                | Perspectives in Human Dimensions                  |       |
| NRSM 584                                                                                                                                | Sustainable Protected Area Management and Tourism |       |
| NRSM 591                                                                                                                                | Special Topics                                    |       |
| PUAD 501                                                                                                                                | Public Administration                             |       |
| PUAD 503                                                                                                                                | Policy Analysis                                   |       |
| PUAD 504                                                                                                                                | Organization Theory                               |       |
| PUAD 523                                                                                                                                | Administrative Law                                |       |
| PUAD 591                                                                                                                                | Special Topics                                    |       |
| <b>Broadening Your Perspective Elective</b>                                                                                             |                                                   |       |
| Complete three credits of the following courses. Other courses may apply to this requirement with the approval of the program director. |                                                   | 3     |
| COMX 412                                                                                                                                | Communication and Conflict                        |       |
| COMX 424                                                                                                                                | Risk, Crisis, and Communication                   |       |
| COMX 575                                                                                                                                | Seminar: Rhetoric & Environmental Controversy     |       |
| ECNS 433                                                                                                                                | Economics of the Environment                      |       |
| GP HY 560                                                                                                                               | Seminar in Planning                               |       |
| HSTA 566                                                                                                                                | The American West                                 |       |
| JRNL 570                                                                                                                                | Reporting                                         |       |



|                    |                                          |
|--------------------|------------------------------------------|
| JRNL 594           | Seminar (Journalism and Society)         |
| LAW 614            | Alternative Dispute Resolution           |
| LAW 641            | Negotiations                             |
| NRSM 571           | International Conservation & Development |
| PHL 515            | Issues in the Anthropocene               |
| PHL 523            | Science and the Environment              |
| PHL 524            | Environmental Aesthetics                 |
| PHL 548            | Philosophy and Animals                   |
| PSCI 553           | Modern Political Theory                  |
| <b>Total Hours</b> | <b>15</b>                                |

## Protected Area Management Graduate Certificate

The Protected Area Management Distance Education Program (PAMDEP) graduate certificate provides students and professionals with training and expertise in the key topics related to protected area management. Courses cover the history and philosophy of the global protected area system, laws and policy and international conventions.

Students learn management planning, managing visitors and tourists, the ecological imperatives of protected areas, sustainability and community-based conservation. These courses provide the necessary foundation for students to pursue a career in protected area management. Courses are offered via distance learning (online and correspondence) through the W.A. Franke College of Forestry and Conservation.

### General Graduate Program Requirements

Graduate School policies and standards can be found on the Graduate School Policies page (p. 440).

The minimum GPA for any graduate program is 3.0. Individual programs may require more than a 3.0 to remain in good standing.

The minimum grade for a course to be accepted toward any master's or doctoral requirement is C. The minimum grade for a course to be accepted toward a certificate program is B-. Individual programs may require higher grades for specific courses.

### Online Program Option

This program may be completed in an online format (<https://catalog.umn.edu/online-programs/definitions/>). Students interested in pursuing an online degree or certificate program are strongly encouraged to contact the offering department to discuss specific program and course modalities (<https://catalog.umn.edu/online-programs/definitions/>) and create a plan of study with an academic advisor. The course requirements listed below may not be consistently offered via online delivery.

## Graduate Certificate - Protected Area Management

### Course Requirements

A field experience/research project is also required for each participant.

| Code                                          | Title                                                                               | Hours     |
|-----------------------------------------------|-------------------------------------------------------------------------------------|-----------|
| <b>Complete all of the following courses:</b> |                                                                                     |           |
| PTRM 525                                      | Evolving Foundations of Protected Area Management                                   | 3         |
| PTRM 526                                      | Protected Area Planning in an Era of Turbulence & Complexity: Concepts & Principles | 3         |
| PTRM 527                                      | Global Ecology, Conservation & Natural Resource Management in a Changing World      | 3         |
| PTRM 528                                      | Tourism & Protected Area Management: Striving for Sustainability                    | 3         |
| PTRM 529                                      | Program management and application planning                                         | 3         |
| <b>Total Hours</b>                            |                                                                                     | <b>15</b> |

## Water Energy Food Nexus Graduate Certificate

### General Graduate Program Requirements

Graduate School policies and standards can be found on the Graduate School Policies page (p. 440).

The minimum GPA for any graduate program is 3.0. Individual programs may require more than a 3.0 to remain in good standing.

The minimum grade for a course to be accepted toward any master's or doctoral requirement is C. The minimum grade for a course to be accepted toward a certificate program is B-. Individual programs may require higher grades for specific courses.

## Graduate Certificate - Water Energy Food Nexus

### Course Requirements

| Code                                          | Title                           | Hours     |
|-----------------------------------------------|---------------------------------|-----------|
| <b>Complete all of the following courses:</b> |                                 |           |
| GEO 540                                       | The Food-Energy-Water Nexus     | 3         |
| NRSM 542                                      | Food-Energy-Water Nexus Seminar | 3         |
| Electives                                     |                                 | 6         |
| <b>Total Hours</b>                            |                                 | <b>12</b> |

## Wilderness Management Graduate Certificate

The certificate provides students and professionals with training and expertise in the key topics related to wilderness management. Courses cover the history and philosophy of the wilderness system, wilderness law and policy, wilderness recreation management, wilderness ecosystem conservation and resource monitoring, and wilderness planning. Taken together these courses provide the necessary foundation for students to pursue careers in wilderness management. Courses are offered via distance learning (online and correspondence) through the Wilderness Management Distance Education Program in the W.A. Franke College of Forestry and Conservation.

## General Graduate Program Requirements

Graduate School policies and standards can be found on the Graduate School Policies page (p. 440).

The minimum GPA for any graduate program is 3.0. Individual programs may require more than a 3.0 to remain in good standing.

The minimum grade for a course to be accepted toward any master's or doctoral requirement is C. The minimum grade for a course to be accepted toward a certificate program is B-. Individual programs may require higher grades for specific courses.

## Online Program Option

This program may be completed in an online format (<https://catalog.umt.edu/online-programs/definitions/>). Students interested in pursuing an online degree or certificate program are strongly encouraged to contact the offering department to discuss specific program and course modalities (<https://catalog.umt.edu/online-programs/definitions/>) and create a plan of study with an academic advisor. The course requirements listed below may not be consistently offered via online delivery.

## Graduate Certificate - Wilderness Management

### Course Requirements

Note: NRSM 560, NRSM 561, and PTRM 562 can be taken in any order, but NRSM 563 serves as a capstone and cannot be taken until the other three courses have been completed.

| Code                                          | Title                                    | Hours     |
|-----------------------------------------------|------------------------------------------|-----------|
| <b>Complete all of the following courses:</b> |                                          |           |
| NRSM 560                                      | American Wilderness Philosophy & Policy  | 4         |
| NRSM 561                                      | Management of Wilderness Ecosystems      | 4         |
| NRSM 563                                      | Wilderness Planning                      | 4         |
| PTRM 562                                      | Managing Recreation Resources Wilderness | 3         |
| <b>Total Hours</b>                            |                                          | <b>15</b> |

## College of Health Graduate Programs

- School of Integrative Physiology and Athletic Training (p. 497)
  - Integrative Physiology and Rehabilitation Sciences Ph.D. (p. 497)
  - Integrative Physiology M.S. (p. 498)
  - Master of Athletic Training (M.A.T.) (p. 498)
- School of Physical Therapy and Rehabilitation Science (p. 499)
  - Physical Therapy, Doctor of (D.P.T.) (p. 500)
  - Transitional Doctor of Physical Therapy (Bachelor) (p. 501)
  - Transitional Doctor of Physical Therapy (Master) (p. 501)
  - Rehabilitation Administration Graduate Certificate (p. 501)
- School of Physician Associate Studies (p. 502)
  - Master of Physician Associate Studies (p. 502)
- School of Public and Community Health Sciences (p. 502)
  - Public Health Ph.D. (p. 503)
  - Master of Public Health (M.P.H.) (p. 504)
  - Master of Public Health (M.P.H.) - Community Health and Prevention Sciences (p. 504)

- Master of Public Health and Public Administration (p. 505)
- Environmental Health Sciences Graduate Certificate (p. 506)
- Epidemiology Graduate Certificate (p. 506)
- Global Health Graduate Certificate (p. 506)
- Public Health Administration Graduate Certificate (p. 507)
- Public Health Graduate Certificate (p. 507)
- School of Social Work (p. 508)
  - Master of Social Work (M.S.W.) (p. 508)
- School of Speech Language and Occupational Sciences (p. 509)
  - Occupational Therapy, Doctor of (p. 509)
  - Occupational Therapy, Doctor of - Post-Professional (p. 509)
  - Speech Language Pathology M.S. (p. 510)
  - Speech, Language, and Hearing Sciences Ph.D. (p. 511)
- Skaggs School of Pharmacy (p. 512)
  - Biomedical and Pharmaceutical Sciences Graduate Programs (p. 512)
    - Pharmaceutical Sciences and Drug Design M.S. (p. 512)
    - Pharmaceutical Sciences and Drug Design Ph.D. (p. 513)
    - Toxicology M.S. (p. 514)
    - Toxicology Ph.D. (p. 514)

## School of Integrative Physiology and Athletic Training

### Programs

- Integrative Physiology and Rehabilitation Sciences Ph.D. (p. 497)
- Integrative Physiology M.S. (p. 498)
- Master of Athletic Training (M.A.T.) (p. 498)

## Integrative Physiology and Rehabilitation Sciences Ph.D.

### General Graduate Program Requirements

Graduate School policies and standards can be found on the Graduate School Policies page (p. 440).

The minimum GPA for any graduate program is 3.0. Individual programs may require more than a 3.0 to remain in good standing.

The minimum grade for a course to be accepted toward any master's or doctoral requirement is C. The minimum grade for a course to be accepted toward a certificate program is B-. Individual programs may require higher grades for specific courses.

## Doctor of Philosophy - Integrative Physiology and Rehabilitation Sciences

The doctoral plan of study is typically 4 years (8 fall/spring semesters, plus summer work), although alternative plans of study are negotiable pending graduate committee approval.

### Course Requirements

| Code                                          | Title                      | Hours |
|-----------------------------------------------|----------------------------|-------|
| <b>Complete all of the following courses:</b> |                            |       |
| BMED 605                                      | Biomedical Research Ethics | 1     |

|                                                                           |                                                   |           |
|---------------------------------------------------------------------------|---------------------------------------------------|-----------|
| BMED 628                                                                  | Grantsmanship                                     | 1         |
| HHP 520                                                                   | Research Methods                                  | 3         |
| HHP 526                                                                   | Higher Education Pedagogy in Integrative Sciences | 3         |
| HHP 529                                                                   | Advanced Exercise Physiology I                    | 3         |
| HHP 530                                                                   | Advanced Exercise Physiology II                   | 3         |
| HHP 531                                                                   | Lab Procedures In Exercise Science                | 3         |
| HHP 594                                                                   | Seminar                                           | 2         |
| <b>Research Methods/Statistical Coursework</b>                            |                                                   |           |
| Complete 6-9 credits of the following courses:                            |                                                   | 6-9       |
| BMED 609                                                                  | Biomedical Statistics                             |           |
| PSYX 520                                                                  | Advanced Psychological Statistics I               |           |
| PSYX 521                                                                  | Advanced Psychological Statistics II              |           |
| PSYX 522                                                                  | Multivariate Statistics                           |           |
| PUBH 520                                                                  | Fundamentals of Biostatistics                     |           |
| SOCI 561                                                                  | Qualitative Methods                               |           |
| SOCI 563                                                                  | Social Data Analysis                              |           |
| STAT 421                                                                  | Probability Theory                                |           |
| STAT 422                                                                  | Mathematical Statistics                           |           |
| STAT 451                                                                  | Statistical Methods I                             |           |
| STAT 452                                                                  | Statistical Methods II                            |           |
| STAT 542                                                                  | Applied Linear Models                             |           |
| STAT 544                                                                  | Topics in Probability and Statistics              |           |
| STAT 545                                                                  | Theory of Linear Models                           |           |
| STAT 640                                                                  | Graduate Seminar in Probability and Statistics    |           |
| <b>Electives</b>                                                          |                                                   |           |
| Complete 18 credits of elective chosen in consultation with your advisor. |                                                   | 18        |
| <b>Preparatory Research and Dissertation</b>                              |                                                   |           |
| Complete 27 credits of the following courses:                             |                                                   | 27        |
| HHP 590                                                                   | Research                                          |           |
| HHP 699                                                                   | Thesis/Dissertation                               |           |
| <b>Total Hours</b>                                                        |                                                   | <b>71</b> |

## Integrative Physiology M.S.

### General Graduate Program Requirements

Graduate School policies and standards can be found on the Graduate School Policies page (p. 440).

The minimum GPA for any graduate program is 3.0. Individual programs may require more than a 3.0 to remain in good standing.

The minimum grade for a course to be accepted toward any master's or doctoral requirement is C. The minimum grade for a course to be accepted toward a certificate program is B-. Individual programs may require higher grades for specific courses.

## Master of Science - Integrative Physiology

### Course Requirements

| Code                                                             | Title                                          | Hours |
|------------------------------------------------------------------|------------------------------------------------|-------|
| <b>Core Courses</b>                                              |                                                |       |
| Complete all of the following courses:                           |                                                |       |
| HHP 520                                                          | Research Methods                               | 3     |
| HHP 525                                                          | Advanced Biomechanics                          | 3     |
| HHP 529                                                          | Advanced Exercise Physiology I                 | 3     |
| HHP 530                                                          | Advanced Exercise Physiology II                | 3     |
| HHP 531                                                          | Lab Procedures In Exercise Science             | 3     |
| HHP 594                                                          | Seminar                                        | 2     |
| <b>Statistics</b>                                                |                                                |       |
| Complete one of the following graduate-level statistics courses: |                                                | 3     |
| BIOB 591                                                         | Special Topics (Using R for Biostatistics)     |       |
| BMED 609                                                         | Biomedical Statistics                          |       |
| PSYX 520                                                         | Advanced Psychological Statistics I            |       |
| PSYX 521                                                         | Advanced Psychological Statistics II           |       |
| PSYX 522                                                         | Multivariate Statistics                        |       |
| PUBH 520                                                         | Fundamentals of Biostatistics                  |       |
| SOCI 561                                                         | Qualitative Methods                            |       |
| SOCI 563                                                         | Social Data Analysis                           |       |
| STAT 421                                                         | Probability Theory                             |       |
| STAT 422                                                         | Mathematical Statistics                        |       |
| STAT 451                                                         | Statistical Methods I                          |       |
| STAT 452                                                         | Statistical Methods II                         |       |
| STAT 542                                                         | Applied Linear Models                          |       |
| STAT 544                                                         | Topics in Probability and Statistics           |       |
| STAT 545                                                         | Theory of Linear Models                        |       |
| STAT 640                                                         | Graduate Seminar in Probability and Statistics |       |

### Comprehensive Requirements:

|                                |                     |     |
|--------------------------------|---------------------|-----|
| Complete one of the following: |                     | 0-6 |
| HHP 599                        | Professional Paper  |     |
| HHP 699                        | Thesis/Dissertation |     |
| Written Comprehensive Exam     |                     |     |

### Electives

Complete 12-18 credits of graduate-level courses chosen in consultation with your advisor. 12-18

**Total Hours** **38**

## Master of Athletic Training (M.A.T.)

**Program fee:** There is an additional fee of \$1186 per semester in addition to regular tuition and fees. This fee will help cover the cost of lab equipment, accreditation costs, adjunct teaching, and software. Other fees may include, but are not limited to: criminal background check (\$55), vaccinations (\$50), NATA membership fee (\$70), ATCAS application fee (\$90), graduate school application fee (\$60), and a cadaver lab fee (\$414).

**Application process:** Students who desire admission into the Master's in Athletic Training Program must submit a formal application to

ATCAS. Applications will open on August 1<sup>st</sup> and will be reviewed on a rolling basis until the cohort is filled.

Formal notification of admission to the Master's program will be made in writing.

Candidates who are not admitted to the program will also receive written notification of this decision. Students may be selected as alternates and if a vacancy should become available prior to summer semester, these students will be informed. Not all qualified candidates may be admitted to the Master's program due to limited enrollment in clinical experiences.

### Admission Requirements for Professional Athletic Training Program (ATP)

1. Submit Athletic Training Student Application through ATCAS (found online at: <https://atcas.liaisoncas.com> (<https://atcas.liaisoncas.com/>)) (pay application fee to ATCAS \$90)
2. Students must have a minimum GPA of 3.0 for all college coursework (a GPA below 3.0 may be considered)
3. Completed pre-requisite courses with a grade of "C" or better (students may be enrolled in pre-requisite courses at time of application). Prerequisite coursework must be completed prior to the start of the professional program.
4. Official transcript(s) of all college coursework (submit to ATCAS). Obtain a current official copy of all college course work. Students must complete or be in the process of completing required course work prior to application to the professional athletic training program.
5. Submit 2 professional letters of recommendation (submit to ATCAS)
  - All recommendations must be received before an application can be reviewed and scored.
  - Please do not request recommendations from personal friends. (At least one letter from a Certified Athletic Trainer or other healthcare professional who engages in routine clinical practice is strongly recommended.)
6. Application essay, which should address your professional goals and desire for pursuing athletic training as a career. (submit to ATCAS)
7. Current resume (submit to ATCAS)
8. Program Interview- in person, videoconference, or by phone.
9. Submit secondary application to the University of Montana's Graduate School upon acceptance to AT program (<http://www.umt.edu/grad/apply/default.php>) (separate application fee from ATCAS \$60)

### General Graduate Program Requirements

Graduate School policies and standards can be found on the Graduate School Policies page (p. 440).

The minimum GPA for any graduate program is 3.0. Individual programs may require more than a 3.0 to remain in good standing.

The minimum grade for a course to be accepted toward any master's or doctoral requirement is C. The minimum grade for a course to be accepted toward a certificate program is B-. Individual programs may require higher grades for specific courses.

## Master of Athletic Training

### Course Requirements

| Code                                          | Title                                                                    | Hours     |
|-----------------------------------------------|--------------------------------------------------------------------------|-----------|
| <b>Complete all of the following courses:</b> |                                                                          |           |
| ATEP 534                                      | Emergency Management in Athletic Training                                | 3         |
| ATEP 536                                      | Foundations of Health Care in Athletic Training                          | 2         |
| ATEP 537                                      | Foundations of Research and Evidence Based Practice in Athletic Training | 2         |
| ATEP 540                                      | Practicum in Athletic Training I                                         | 3         |
| ATEP 541                                      | Practicum in Athletic Training II                                        | 3         |
| ATEP 543                                      | Orthopedic Assessment I                                                  | 3         |
| ATEP 545                                      | Diagnosis and Management of Sports Related Concussion                    | 2         |
| ATEP 546                                      | General Medical Assessment                                               | 3         |
| ATEP 547                                      | Orthopedic Assessment II                                                 | 3         |
| ATEP 550                                      | Practicum in Athletic Training III                                       | 3         |
| ATEP 551                                      | Practicum in Athletic Training IV                                        | 3         |
| ATEP 560                                      | Clinical Immersion in Athletic Training I                                | 2         |
| ATEP 561                                      | Clinical Immersion in Athletic Training II                               | 6         |
| ATEP 562                                      | Clinical Immersion in Athletic Training III                              | 4         |
| ATEP 569                                      | Clinical Anatomy Laboratory                                              | 1         |
| ATEP 576                                      | Performance and Technology in Athletic Training                          | 3         |
| ATEP 580                                      | Pharmacology for Sports Medicine                                         | 1         |
| ATEP 581                                      | Therapeutic Interventions I                                              | 3         |
| ATEP 583                                      | Therapeutic Interventions II                                             | 3         |
| ATEP 585                                      | Therapeutic Interventions III                                            | 3         |
| ATEP 588                                      | Healthcare Administration and Leadership in Athletic Training            | 3         |
| ATEP 590                                      | Research                                                                 | 2         |
| ATEP 594                                      | Seminar in Athletic Training                                             | 1         |
| ATEP 599                                      | Research Capstone in Athletic Training                                   | 2         |
| HHP 523                                       | Case Studies in Performance Psychology                                   | 3         |
| <b>Total Hours</b>                            |                                                                          | <b>67</b> |

## School of Physical Therapy and Rehabilitation Science

The professional program in physical therapy grants the Doctor of Physical Therapy (DPT) degree. The program has an entry-level DPT program, an entry-level DPT/MBA program, an entry-level DPT/MPH, and a post-entry level transitional DPT curriculum leading to the DPT degree. The following section describes the profession and the pre-professional requirements and application procedures. This information also is available on the program website (<http://health.umt.edu/physicaltherapy/>).

### The Profession

Physical Therapy is a health care profession concerned with the habilitation and rehabilitation of individuals with limitations resulting from pathological, surgical, or traumatic conditions. The profession is also concerned with health, wellness and prevention of disability in an effort to promote maximal use of an individual's capacities

and reduce their risk of illness. Physical therapists are trained to evaluate neurological, musculoskeletal, cardiovascular, respiratory, and integumentary disorders. Exercise and physical agents, such as heat, cold, light, electricity, and massage are used to promote healing, relieve pain, maintain or restore strength, and improve joint range of motion and functional capabilities. Physical therapists play key roles in:

- 1. the physical therapy diagnosis and treatment of musculoskeletal injuries,
- 2. wellness and injury prevention,
- 3. rehabilitating injured workers to return to their jobs,
- 4. rehabilitating senior citizens after debilitating disease to enable them to remain independent,
- 5. helping handicapped children to live within the least restrictive environment,
- 6. preventing and treating sports-related injuries, and
- 7. conducting research in basic and clinical sciences.

Knowledge of the psychological and social ramifications of disability affecting the individual and his or her family is an integral part of physical therapy intervention.

Physical therapy is practiced in diverse settings, including hospitals, clinics, skilled nursing facilities, sports medicine programs, public schools, and private practices. Legislation in Montana permits direct public access to physical therapists for evaluation and treatment without a physician referral. Even so, physical therapists remain committed to functioning as an integral member of the health care team.

The physical therapy educational program at the University of Montana seeks to prepare physical therapists who have a broad base of skills upon graduation, and who will be able to implement physical therapy services in many settings, especially rural environments. Rural settings require a physical therapist to serve not only as a provider of direct patient care, but also to fulfill the roles of administrator, supervisor, teacher, consultant, and researcher. Students successfully completing the professional program meet the competencies for physical therapy as determined by the Commission on Accreditation in Physical Therapy Education of the American Physical Therapy Association, receive a Doctor of Physical Therapy degree, and are prepared for state licensure.

The Physical Therapy Program is accredited by the Commission on Accreditation in Physical Therapy Education of the American Physical Therapy Association through 2018.

Pre-Professional Physical Therapy Curriculum and Application Process

Students wishing to apply to the professional physical therapy program at the University of Montana-Missoula may select any major for their undergraduate degree. While pre-physical therapy is not a degree-granting major at the University, prospective applicants should list pre-professional physical therapy (PPPT) as their second major. This will allow them also to receive advising from the School of Physical Therapy and Rehabilitation Science in order to assure adequate preparation for the professional program. In addition to completing a baccalaureate degree, applicants must take the prerequisite courses and meet additional application requirements listed on our website (<http://health.umt.edu/physicaltherapy/>). All prerequisite courses must be taken for a traditional letter grade and must be completed with a grade of "C" (2.00) or better.

- Physical Therapy, Doctor of (D.P.T.) (p. 500)
- Transitional Doctor of Physical Therapy (Bachelor) (p. 501)
- Transitional Doctor of Physical Therapy (Master) (p. 501)
- Rehabilitation Administration Graduate Certificate (p. 501)

Physical Therapy, Doctor of (D.P.T.)  
General Graduate Program Requirements

Graduate School policies and standards can be found on the Graduate School Policies page (p. 440).

The minimum GPA for any graduate program is 3.0. Individual programs may require more than a 3.0 to remain in good standing.

The minimum grade for a course to be accepted toward any master's or doctoral requirement is C. The minimum grade for a course to be accepted toward a certificate program is B-. Individual programs may require higher grades for specific courses.

Doctor of Physical Therapy

- The University of Montana Doctor of Physical Therapy (D.P.T.) program prepares graduates to be competent physical therapists capable of assuming roles as clinical practitioners, educators, scholars/researchers, administrators, consultants, and advocates. The 8-semester curriculum completed in 33 months provides unique opportunities for students, beginning with strong foundational science content in the first year and culminating with a semester-long clinical internship. Courses include both didactic (classroom) and laboratory (hands-on) learning that complement integrated and full-time clinical experiences beginning in the summer of the first year.
- The D.P.T. degree requires completion of 128 credit hours, which includes 36 weeks of clinical education and 6 elective credit hours.
- The UMPT Clinical Education Program requires students to complete a total of 36 weeks of clinical experience consisting of 2 integrated, part-time experiences in the UM Physical Therapy Clinic (<http://health.umt.edu/umpt-clinic/>) and 3 full-time clinical experiences, along with participation in community outreach and interprofessional collaborations to promote professional development outside of traditional physical therapy training.

Course Requirements

| Code                                   | Title                                  | Hours |
|----------------------------------------|----------------------------------------|-------|
| Complete all of the following courses: |                                        |       |
| P T 503                                | PT and Health Care System              | 2     |
| P T 510                                | Applied Clinical Anatomy               | 5     |
| P T 516                                | Movement System Exam & Eval            | 4     |
| P T 519                                | Musculoskeletal Management I           | 3     |
| P T 520                                | PT & the Aging Adult                   | 2     |
| P T 523                                | Clinical Medicine I                    | 1     |
| P T 524                                | Clinical Medicine II                   | 2     |
| P T 525                                | Clinical Medicine III                  | 2     |
| P T 526                                | Foundational Skills & Intervention     | 3     |
| P T 527                                | Physical & Electrophysical Agents      | 3     |
| P T 529                                | Clinical Biomechanics                  | 5     |
| P T 530                                | Clinically Applied Exercise Physiology | 5     |
| P T 531                                | Prosthetics and Orthotics              | 1     |
| P T 532                                | Foundational Skills II                 | 1     |



|                                                                                  |                                             |            |
|----------------------------------------------------------------------------------|---------------------------------------------|------------|
| P T 533                                                                          | Pelvic Health PT                            | 1          |
| P T 536                                                                          | Clinical Neuroscience and Neuroanatomy      | 5          |
| P T 560                                                                          | Clinical Reasoning I                        | 1          |
| P T 563                                                                          | Cardiopulmonary PT                          | 3          |
| P T 565                                                                          | Pediatric Physical Therapy                  | 4          |
| P T 567                                                                          | Neurorehabilitation I                       | 4          |
| P T 568                                                                          | Neurorehabilitation II                      | 3          |
| P T 569                                                                          | Musculoskeletal Management II               | 5          |
| P T 570                                                                          | Psychosocial Aspects of Health and Wellness | 2          |
| P T 572                                                                          | Practice & Administration                   | 3          |
| P T 573                                                                          | Musculoskeletal Management III              | 6          |
| P T 576                                                                          | Clinical Reasoning II                       | 3          |
| P T 582                                                                          | Clinical Experience Introductory Course     | 1          |
| P T 583                                                                          | Integrated Clinical Experience I            | 2          |
| P T 584                                                                          | Integrated Clinical Experience II           | 2          |
| P T 587                                                                          | Full -Time Clinical Experience I            | 6          |
| P T 589                                                                          | Full-Time Clinical Experience II            | 6          |
| P T 626                                                                          | Clinical Medicine IV                        | 2          |
| P T 627                                                                          | Prevention & Wellness Education             | 3          |
| P T 629                                                                          | Clinical Medicine V                         | 2          |
| P T 676                                                                          | Clinical Reasoning III                      | 3          |
| P T 679                                                                          | Trends & Scholarly Activity                 | 5          |
| P T 680                                                                          | Full-Time Clinical Experience III           | 11         |
| <b>Electives</b>                                                                 |                                             |            |
| Complete 6 credits of elective courses chosen in consultation with your advisor. |                                             | 6          |
| <b>Total Hours</b>                                                               |                                             | <b>128</b> |

## Transitional Doctor of Physical Therapy (Bachelor)

### General Graduate Program Requirements

Graduate School policies and standards can be found on the Graduate School Policies page (p. 440).

The minimum GPA for any graduate program is 3.0. Individual programs may require more than a 3.0 to remain in good standing.

The minimum grade for a course to be accepted toward any master's or doctoral requirement is C. The minimum grade for a course to be accepted toward a certificate program is B-. Individual programs may require higher grades for specific courses.

## Doctor of Physical Therapy - Transitional Physical Therapy (Bachelor)

### Course Requirements

| Code                                          | Title                             | Hours |
|-----------------------------------------------|-----------------------------------|-------|
| <b>Complete all of the following courses:</b> |                                   |       |
| P T 650                                       | Screening for Medical Disorder    | 2     |
| P T 651                                       | Medical Imaging in Rehabilitation | 2     |
| P T 652                                       | Pharmacology in Rehabilitation    | 2     |
| P T 653                                       | Legal and Ethical Issues          | 1     |

|                    |                                                         |           |
|--------------------|---------------------------------------------------------|-----------|
| P T 654            | Clinical Decision Making: Current Principles & Concepts | 1         |
| P T 655            | Business and Marketing                                  | 2         |
| P T 656            | Coding and Reimbursement                                | 1         |
| P T 657            | Professionalism                                         | 2         |
| P T 658            | Critical Assessment                                     | 3         |
| P T 659            | Capstone Project                                        | 4         |
| P T 660            | Management of Musculoskeletal Disorders                 | 2         |
| P T 661            | Management of Cardiovascular or Pulmonary Disorders     | 2         |
| P T 662            | Management of Neuro Disorders                           | 2         |
| P T 663            | Management of Integumentary Disorders                   | 2         |
| P T 664            | Wellness and Health Promotion                           | 2         |
| <b>Total Hours</b> |                                                         | <b>30</b> |

## Transitional Doctor of Physical Therapy (Master)

### General Graduate Program Requirements

Graduate School policies and standards can be found on the Graduate School Policies page (p. 440).

The minimum GPA for any graduate program is 3.0. Individual programs may require more than a 3.0 to remain in good standing.

The minimum grade for a course to be accepted toward any master's or doctoral requirement is C. The minimum grade for a course to be accepted toward a certificate program is B-. Individual programs may require higher grades for specific courses.

## Doctor of Physical Therapy - Transitional Physical Therapy (Master)

### Course Requirements

| Code                                          | Title                                                   | Hours     |
|-----------------------------------------------|---------------------------------------------------------|-----------|
| <b>Complete all of the following courses:</b> |                                                         |           |
| P T 650                                       | Screening for Medical Disorder                          | 2         |
| P T 651                                       | Medical Imaging in Rehabilitation                       | 2         |
| P T 652                                       | Pharmacology in Rehabilitation                          | 2         |
| P T 653                                       | Legal and Ethical Issues                                | 1         |
| P T 654                                       | Clinical Decision Making: Current Principles & Concepts | 1         |
| P T 655                                       | Business and Marketing                                  | 2         |
| P T 656                                       | Coding and Reimbursement                                | 1         |
| P T 657                                       | Professionalism                                         | 2         |
| P T 658                                       | Critical Assessment                                     | 3         |
| P T 659                                       | Capstone Project                                        | 4         |
| <b>Total Hours</b>                            |                                                         | <b>20</b> |

## Rehabilitation Administration Graduate Certificate

This 13-credit three-semester program can be taken as a standalone certificate or in conjunction with the transitional Doctor of Physical Therapy (tDPT) program. If taken in conjunction with the tDPT program,

the Rehabilitation Administration Certificate (RAC) adds only three additional credits (two courses) to the tDPT curriculum, making the tDPT + RAC a viable goal for any managerial physical therapist. The program is delivered in a distance-education format except for the two-day Professionalism Seminar.

General Graduate Program Requirements

Graduate School policies and standards can be found on the Graduate School Policies page (p. 440).

The minimum GPA for any graduate program is 3.0. Individual programs may require more than a 3.0 to remain in good standing.

The minimum grade for a course to be accepted toward any master’s or doctoral requirement is C. The minimum grade for a course to be accepted toward a certificate program is B-. Individual programs may require higher grades for specific courses.

Graduate Certificate - Rehabilitation Administration

Course Requirements

| Code                                   | Title                                                                            | Hours |
|----------------------------------------|----------------------------------------------------------------------------------|-------|
| Complete all of the following courses: |                                                                                  |       |
| AHHS 582                               | Implementing Value Based System Change in Rehabilitation                         | 1     |
| AHHS 584                               | Leadership to Develop Innovative Clinical Practice for Value Based Care          | 2     |
| AHHS 599                               | System Skills to Thrive in a Changing Health Care Environment - Capstone Project | 4     |
| P T 653                                | Legal and Ethical Issues                                                         | 1     |
| P T 655                                | Business and Marketing                                                           | 2     |
| P T 656                                | Coding and Reimbursement                                                         | 1     |
| P T 657                                | Professionalism                                                                  | 2     |
| Total Hours                            |                                                                                  | 13    |

School of Physician Associate Studies

- Master of Physician Associate Studies (p. 502)

Master of Physician Associate Studies

The Master of Physician Associate Studies program will begin accepting students and offering courses in the 2026-27 academic year.

General Graduate Program Requirements

Graduate School policies and standards can be found on the Graduate School Policies page (p. 440).

The minimum GPA for any graduate program is 3.0. Individual programs may require more than a 3.0 to remain in good standing.

The minimum grade for a course to be accepted toward any master’s or doctoral requirement is C. The minimum grade for a course to be

accepted toward a certificate program is B-. Individual programs may require higher grades for specific courses.

Master of Physician Associate Studies Course Requirements

| Code                                                       | Title                                            | Hours |
|------------------------------------------------------------|--------------------------------------------------|-------|
| Preclinical Coursework                                     |                                                  |       |
| Complete all of the following courses:                     |                                                  |       |
| PA 511                                                     | Introduction to Health Professions & PA Practice | 1     |
| PA 512                                                     | Preventive Medicine                              | 2     |
| PA 513                                                     | Evidence-based Medicine                          | 1     |
| PA 514                                                     | Cross-Cultural Health                            | 1     |
| PA 521                                                     | Diagnostic Methods                               | 2     |
| PA 522                                                     | Behavioral Health                                | 2     |
| PA 531                                                     | Pathophysiology I                                | 3     |
| PA 532                                                     | Pathophysiology II                               | 3     |
| PA 533                                                     | Clinical Pharmacology I                          | 3     |
| PA 534                                                     | Clinical Pharmacology II                         | 3     |
| PA 541                                                     | Patient Assessment I                             | 4     |
| PA 542                                                     | Patient Assessment II                            | 4     |
| PA 543                                                     | Patient Assessment III                           | 4     |
| PA 544                                                     | Clinical Medicine I                              | 4     |
| PA 545                                                     | Clinical Medicine II                             | 4     |
| PA 546                                                     | Clinical Medicine III                            | 4     |
| PA 550                                                     | Anatomy & Physiology                             | 4     |
| PA 551                                                     | Clinical Skills                                  | 5     |
| Clinical Coursework                                        |                                                  |       |
| Complete 48 credits of the following course:               |                                                  | 48    |
| PA 595                                                     | Supervised Clinical Practice Experience          |       |
| This includes clinical experiences in the following areas: |                                                  |       |
| Family Medicine                                            |                                                  |       |
| Internal Medicine                                          |                                                  |       |
| Emergency Medicine                                         |                                                  |       |
| Surgery                                                    |                                                  |       |
| Pediatrics                                                 |                                                  |       |
| Women’s Health                                             |                                                  |       |
| Psychiatry                                                 |                                                  |       |
| Other elective areas                                       |                                                  |       |
| Postclinical Coursework                                    |                                                  |       |
| Complete all of the following courses:                     |                                                  |       |
| PA 516                                                     | Medical Ethics                                   | 1     |
| PA 523                                                     | Professional Practice I                          | 2     |
| PA 524                                                     | Research                                         | 2     |
| Total Hours                                                |                                                  | 107   |

School of Public and Community Health Sciences

- Public Health Ph.D. (p. 503)
- Master of Public Health (M.P.H.) (p. 504)

- Master of Public Health (M.P.H.) - Community Health and Prevention Sciences (p. 504)
- Master of Public Health and Public Administration (p. 505)
- Environmental Health Sciences Graduate Certificate (p. 506)
- Epidemiology Graduate Certificate (p. 506)
- Global Health Graduate Certificate (p. 506)
- Public Health Administration Graduate Certificate (p. 507)
- Public Health Graduate Certificate (p. 507)

## Public Health Ph.D.

### General Graduate Program Requirements

Graduate School policies and standards can be found on the Graduate School Policies page (p. 440).

The minimum GPA for any graduate program is 3.0. Individual programs may require more than a 3.0 to remain in good standing.

The minimum grade for a course to be accepted toward any master's or doctoral requirement is C. The minimum grade for a course to be accepted toward a certificate program is B-. Individual programs may require higher grades for specific courses.

### Online Program Option

This program may be completed in an online format (<https://catalog.umn.edu/online-programs/definitions/>). Students interested in pursuing an online degree or certificate program are strongly encouraged to contact the offering department to discuss specific program and course modalities (<https://catalog.umn.edu/online-programs/definitions/>) and create a plan of study with an academic advisor. The course requirements listed below may not be consistently offered via online delivery.

### Doctor of Philosophy - Public Health Course Requirements

| Code                                              | Title                                                                                                       | Hours |
|---------------------------------------------------|-------------------------------------------------------------------------------------------------------------|-------|
| <b>Statistics &amp; Programming</b>               |                                                                                                             |       |
| Complete one of the following sequences:          |                                                                                                             | 6-8   |
| Statistical Methods and Data Analysis (8 credits) |                                                                                                             |       |
| STAT 451 & STAT 452 & STAT 457 & STAT 458         | Statistical Methods I and Statistical Methods II and Computer Data Analysis I and Computer Data Analysis II |       |
| Biostatistics and Data Science (6 credits)        |                                                                                                             |       |
| PUBH 520 & PUBH 610                               | Fundamentals of Biostatistics and Data Science and Research Methods Using R <sup>1</sup>                    |       |
| <b>Required Courses</b>                           |                                                                                                             |       |
| Complete all of the following courses:            |                                                                                                             |       |
| BMED 605 or PUBH 570                              | Biomedical Research Ethics or Ethical Issues in Public Health                                               | 1-3   |
| PUBH 525                                          | Multicultural/Native American Public Health                                                                 | 3     |
| PUBH 620                                          | Advanced Quantitative Methods in Public Health I                                                            | 3     |

|          |                                                   |   |
|----------|---------------------------------------------------|---|
| PUBH 621 | Advanced Quantitative Methods in Public Health II | 3 |
| PUBH 640 | Qualitative Research Methods in Public Health     | 3 |
| PUBH 694 | Seminar <sup>2</sup>                              | 3 |

#### Epidemiology Electives

|                                              |                                                              |   |
|----------------------------------------------|--------------------------------------------------------------|---|
| Complete 6 credits of the following courses: |                                                              | 6 |
| PUBH 612                                     | Neuroepidemiology                                            |   |
| PUBH 613                                     | Spatial Epidemiology in Geographic Information Systems (GIS) |   |
| PUBH 614                                     | Environmental and Occupational Epidemiology                  |   |
| PUBH 615                                     | Infectious Disease Epidemiology and Control                  |   |

#### Electives

|                                                 |                                               |      |
|-------------------------------------------------|-----------------------------------------------|------|
| Complete 8-12 credits of the following courses: |                                               | 8-12 |
| AHHS 430                                        | Health Aspects of Aging                       |      |
| ANTY 433                                        | Indigenous Global Health & Healing            |      |
| BIOS 534                                        | Integrated Systems Ecology                    |      |
| CHMY 541                                        | Environmental Chemistry                       |      |
| COMX 415                                        | Intercultural Communication                   |      |
| COMX 425                                        | Communication in Health Organizations         |      |
| COMX 485                                        | Social Interaction and Human Well-Being       |      |
| COMX 575                                        | Seminar: Rhetoric & Environmental Controversy |      |
| ENST 510                                        | Environmental Issues of Indigenous Peoples    |      |
| ENST 513                                        | Natural Resource Conflict Resolution          |      |
| PSCI 463                                        | Development Administration                    |      |
| PUAD 503                                        | Policy Analysis                               |      |
| PUAD 504                                        | Organization Theory                           |      |
| PUAD 525                                        | Strategic Planning                            |      |
| PUBH 510                                        | Intro to Epidemiology                         |      |
| PUBH 520                                        | Fundamentals of Biostatistics                 |      |
| PUBH 540                                        | Social & Behavioral Science in Public Health  |      |
| PUBH 544                                        | CBPR Methods for Health                       |      |
| PUBH 545                                        | Issues in Maternal and Child Health           |      |
| PUBH 560                                        | Environmental & Rural Health                  |      |
| PUBH 591                                        | Special Topics/Experimental                   |      |
| PUBH 600                                        | Research Rotations in Public Health           |      |
| PUBH 692                                        | Independent Study                             |      |
| SOCI 563                                        | Social Data Analysis                          |      |
| S W 465                                         | Social Work Global Context                    |      |

#### Research and Dissertation

|                     |                           |       |
|---------------------|---------------------------|-------|
| PUBH 690 & PUBH 699 | Research and Dissertation | 12-16 |
|---------------------|---------------------------|-------|

|                    |           |
|--------------------|-----------|
| <b>Total Hours</b> | <b>60</b> |
|--------------------|-----------|

<sup>1</sup> Students who choose to complete this requirement with PUBH 520 and PUBH 610 will take additional research and dissertation or electives credit to meet the required 60 credits for the program.

<sup>2</sup> Students enroll in one (1) credit for each semester when presenting an informational seminar, a research progress update, and the final dissertation presentation.

# Master of Public Health (M.P.H.)

## General Graduate Program Requirements

Graduate School policies and standards can be found on the Graduate School Policies page (p. 440).

The minimum GPA for any graduate program is 3.0. Individual programs may require more than a 3.0 to remain in good standing.

The minimum grade for a course to be accepted toward any master’s or doctoral requirement is C. The minimum grade for a course to be accepted toward a certificate program is B-. Individual programs may require higher grades for specific courses.

## Online Program Option

This program may be completed in an online format (<https://catalog.umn.edu/online-programs/definitions/>). Students interested in pursuing an online degree or certificate program are strongly encouraged to contact the offering department to discuss specific program and course modalities (<https://catalog.umn.edu/online-programs/definitions/>) and create a plan of study with an academic advisor. The course requirements listed below may not be consistently offered via online delivery.

## Master of Public Health

An accelerated option is available to students in the Bachelor of Science in Public Health program with an undergraduate cumulative GPA of 3.0 or higher. To matriculate into the accelerated MPH program, students apply to the program in their junior year. If admitted, students will take 12 credits in their senior year that will be counted toward both the undergraduate program elective requirements and graduate degree program requirements upon completion of the Bachelor of Science in Public Health. Students may contact the program director for information about which courses may count toward both degrees.

### Course Requirements

| Code                                   | Title                                        | Hours |
|----------------------------------------|----------------------------------------------|-------|
| <b>Required Courses</b>                |                                              |       |
| Complete all of the following courses: |                                              |       |
| PUBH 510                               | Intro to Epidemiology                        | 3     |
| PUBH 520                               | Fundamentals of Biostatistics                | 3     |
| PUBH 530                               | Public Health Administration and Management  | 3     |
| PUBH 535                               | Health Policy                                | 3     |
| PUBH 540                               | Social & Behavioral Science in Public Health | 3     |
| PUBH 550                               | Program Evaluation & Research Methods        | 3     |
| PUBH 560                               | Environmental & Rural Health                 | 3     |
| PUBH 570                               | Ethical Issues in Public Health              | 3     |
| PUBH 580                               | Rural Health Issues Global Context           | 3     |
| <b>Capstone</b>                        |                                              |       |
| Complete all of the following courses: |                                              |       |
| PUBH 595                               | Practicum                                    | 3     |

|                                          |                                               |           |
|------------------------------------------|-----------------------------------------------|-----------|
| PUBH 599                                 | Professional Paper/ILE                        | 3         |
| <b>Electives</b>                         |                                               |           |
| Complete three of the following courses: |                                               | 9         |
| AHHS 430                                 | Health Aspects of Aging                       |           |
| ANTY 433                                 | Indigenous Global Health & Healing            |           |
| BIOS 534                                 | Integrated Systems Ecology                    |           |
| CHMY 541                                 | Environmental Chemistry                       |           |
| COMX 415                                 | Intercultural Communication                   |           |
| COMX 425                                 | Communication in Health Organizations         |           |
| COMX 485                                 | Social Interaction and Human Well-Being       |           |
| COMX 575                                 | Seminar: Rhetoric & Environmental Controversy |           |
| ENST 510                                 | Environmental Issues of Indigenous Peoples    |           |
| ENST 513                                 | Natural Resource Conflict Resolution          |           |
| PSCI 431                                 | Politics of Global Migration                  |           |
| PSCI 463                                 | Development Administration                    |           |
| PUAD 503                                 | Policy Analysis                               |           |
| PUAD 504                                 | Organization Theory                           |           |
| PUAD 525                                 | Strategic Planning                            |           |
| PUBH 525                                 | Multicultural/Native American Public Health   |           |
| PUBH 544                                 | CBPR Methods for Health                       |           |
| PUBH 545                                 | Issues in Maternal and Child Health           |           |
| PUBH 590                                 | Research                                      |           |
| PUBH 591                                 | Special Topics/Experimental                   |           |
| PUBH 592                                 | Independent Study                             |           |
| PUBH 610                                 | Data Science and Research Methods Using R     |           |
| SOCI 563                                 | Social Data Analysis                          |           |
| STAT 451                                 | Statistical Methods I                         |           |
| STAT 452                                 | Statistical Methods II                        |           |
| STAT 457                                 | Computer Data Analysis I                      |           |
| STAT 458                                 | Computer Data Analysis II                     |           |
| S W 465                                  | Social Work Global Context                    |           |
| <b>Total Hours</b>                       |                                               | <b>42</b> |

# Master of Public Health (M.P.H.) - Community Health and Prevention Sciences

## General Graduate Program Requirements

Graduate School policies and standards can be found on the Graduate School Policies page (p. 440).

The minimum GPA for any graduate program is 3.0. Individual programs may require more than a 3.0 to remain in good standing.

The minimum grade for a course to be accepted toward any master’s or doctoral requirement is C. The minimum grade for a course to be accepted toward a certificate program is B-. Individual programs may require higher grades for specific courses.

## Master of Public Health - Community Health and Prevention Sciences Concentration

Students graduating with a concentration in Community Health and Prevention Sciences will be eligible to take the national exam to become a Certified Health Education Specialist.

An accelerated option is available to students in the Bachelor of Science in Public Health program with an undergraduate cumulative GPA of 3.0 or higher. To matriculate into the accelerated Master of Public Health program, students apply to the program in their junior year. If admitted, students are eligible in their last two semesters of the BS in Public Health degree to take up to 12 credits of required Master of Public Health coursework, approved in advance by the program director and the student's undergraduate advisor. These credits will count toward undergraduate program elective requirements and be applied toward the degree upon completion of the BS in Public Health.

### Course Requirements

| Code                                                                                                                          | Title                                                   | Hours     |
|-------------------------------------------------------------------------------------------------------------------------------|---------------------------------------------------------|-----------|
| <b>Complete all of the following courses:</b>                                                                                 |                                                         |           |
| COMX 480<br>or COMX 486                                                                                                       | Health Communication<br>Health and Family Communication | 3         |
| PUBH 475E                                                                                                                     | Public Health Ethics                                    | 3         |
| PUBH 510                                                                                                                      | Intro to Epidemiology                                   | 3         |
| PUBH 520                                                                                                                      | Fundamentals of Biostatistics                           | 3         |
| PUBH 530                                                                                                                      | Public Health Administration and Management             | 3         |
| PUBH 535                                                                                                                      | Health Policy                                           | 3         |
| PUBH 542                                                                                                                      | Applied Theoretical Foundations of Community Health     | 3         |
| PUBH 544                                                                                                                      | CBPR Methods for Health                                 | 3         |
| PUBH 546                                                                                                                      | Theories of Community Health Promotion                  | 3         |
| PUBH 550                                                                                                                      | Program Evaluation & Research Methods                   | 3         |
| PUBH 595                                                                                                                      | Practicum (Applied Practice Experience)                 | 3         |
| PUBH 599                                                                                                                      | Professional Paper/ILE                                  | 3         |
| <b>Electives</b>                                                                                                              |                                                         |           |
| Complete 6 credits of graduate-level courses chosen in consultation with your advisor. The following courses are recommended: |                                                         | 6         |
| COMX 425                                                                                                                      | Communication in Health Organizations                   |           |
| PUBH 525                                                                                                                      | Multicultural/Native American Public Health             |           |
| PUBH 545                                                                                                                      | Issues in Maternal and Child Health                     |           |
| PUBH 560                                                                                                                      | Environmental & Rural Health                            |           |
| PUBH 580                                                                                                                      | Rural Health Issues Global Context                      |           |
| PUBH 610                                                                                                                      | Data Science and Research Methods Using R               |           |
| <b>Total Hours</b>                                                                                                            |                                                         | <b>42</b> |

## Master of Public Health and Public Administration

The School of Public and Community Health Sciences and the Department of Public Administration and Policy offer an online 42 credit Master of Public Health and Public Administration (MPAPH).

This degree will allow students to complete core classes in their respective discipline (Public Administration or Public Health) required for national accreditation competencies while specializing in public administration/nonprofit or health. Students that graduate with the Master of Public Health and Public Administration will be prepared for leadership roles within government agencies, community healthcare settings, and non-profit organizations.

### General Graduate Program Requirements

Graduate School policies and standards can be found on the Graduate School Policies page (p. 440).

The minimum GPA for any graduate program is 3.0. Individual programs may require more than a 3.0 to remain in good standing.

The minimum grade for a course to be accepted toward any master's or doctoral requirement is C. The minimum grade for a course to be accepted toward a certificate program is B-. Individual programs may require higher grades for specific courses.

### Online Program Option

This program may be completed in an online format (<https://catalog.umd.edu/online-programs/definitions/>). Students interested in pursuing an online degree or certificate program are strongly encouraged to contact the offering department to discuss specific program and course modalities (<https://catalog.umd.edu/online-programs/definitions/>) and create a plan of study with an academic advisor. The course requirements listed below may not be consistently offered via online delivery.

## Master of Public Health and Public Administration

### Required Courses

Students must complete 21 credits in Public Health and 21 credits in Public Administration.

| Code                                   | Title                                        | Hours |
|----------------------------------------|----------------------------------------------|-------|
| <b>Public Health</b>                   |                                              |       |
| Complete all of the following courses: |                                              |       |
| PUBH 510                               | Intro to Epidemiology                        | 3     |
| PUBH 520                               | Fundamentals of Biostatistics                | 3     |
| PUBH 540                               | Social & Behavioral Science in Public Health | 3     |
| PUBH 560                               | Environmental & Rural Health                 | 3     |
| PUBH 595                               | Practicum                                    | 3     |
| PUBH 599                               | Professional Paper/ILE                       | 3     |
| <b>Public Administration</b>           |                                              |       |
| Complete all of the following courses: |                                              |       |
| PUAD 501                               | Public Administration                        | 3     |
| PUAD 503                               | Policy Analysis                              | 3     |



|                                                                                                                                                                                                                                           |                                 |           |
|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|---------------------------------|-----------|
| PUAD 504                                                                                                                                                                                                                                  | Organization Theory             | 3         |
| PUAD 505                                                                                                                                                                                                                                  | Budgeting & Finance             | 3         |
| PUAD 506                                                                                                                                                                                                                                  | MPA Applied Research Methods    | 3         |
| PUAD 522                                                                                                                                                                                                                                  | Human Resource Management       | 3         |
| <b>Ethics</b>                                                                                                                                                                                                                             |                                 |           |
| Complete one of the following courses:                                                                                                                                                                                                    |                                 |           |
| PUAD 561                                                                                                                                                                                                                                  | Ethics in Public Administration | 3         |
| or PUBH 570                                                                                                                                                                                                                               | Ethical Issues in Public Health |           |
| <b>Additional Course</b>                                                                                                                                                                                                                  |                                 |           |
| Depending on the Ethics course chosen, complete an additional 3-credit class in the other area of study. For example, if PUAD 561 is completed, then the student must choose a PUBH course. Students must have 21 credits from each area. |                                 | 3         |
| <b>Total Hours</b>                                                                                                                                                                                                                        |                                 | <b>42</b> |

## Environmental Health Sciences Graduate Certificate

### General Graduate Program Requirements

Graduate School policies and standards can be found on the Graduate School Policies page (p. 440).

The minimum GPA for any graduate program is 3.0. Individual programs may require more than a 3.0 to remain in good standing.

The minimum grade for a course to be accepted toward any master's or doctoral requirement is C. The minimum grade for a course to be accepted toward a certificate program is B-. Individual programs may require higher grades for specific courses.

### Online Program Option

This program may be completed in an online format (<https://catalog.umd.edu/online-programs/definitions/>). Students interested in pursuing an online degree or certificate program are strongly encouraged to contact the offering department to discuss specific program and course modalities (<https://catalog.umd.edu/online-programs/definitions/>) and create a plan of study with an academic advisor. The course requirements listed below may not be consistently offered via online delivery.

## Graduate Certificate - Environmental Health Sciences

### Course Requirements

| Code                                   | Title                                             | Hours     |
|----------------------------------------|---------------------------------------------------|-----------|
| Complete all of the following courses: |                                                   |           |
| PUBH 510                               | Intro to Epidemiology                             | 3         |
| PUBH 560                               | Environmental & Rural Health                      | 3         |
| PUBH 591                               | Special Topics/Experimental (Quality)             | 3         |
| PUBH 592                               | Independent Study (Environmental Health Sciences) | 3         |
| <b>Total Hours</b>                     |                                                   | <b>12</b> |

## Epidemiology Graduate Certificate

### General Graduate Program Requirements

Graduate School policies and standards can be found on the Graduate School Policies page (p. 440).

The minimum GPA for any graduate program is 3.0. Individual programs may require more than a 3.0 to remain in good standing.

The minimum grade for a course to be accepted toward any master's or doctoral requirement is C. The minimum grade for a course to be accepted toward a certificate program is B-. Individual programs may require higher grades for specific courses.

### Online Program Option

This program may be completed in an online format (<https://catalog.umd.edu/online-programs/definitions/>). Students interested in pursuing an online degree or certificate program are strongly encouraged to contact the offering department to discuss specific program and course modalities (<https://catalog.umd.edu/online-programs/definitions/>) and create a plan of study with an academic advisor. The course requirements listed below may not be consistently offered via online delivery.

## Graduate Certificate - Epidemiology

### Course Requirements

| Code                                   | Title                                                        | Hours     |
|----------------------------------------|--------------------------------------------------------------|-----------|
| Complete all of the following courses: |                                                              |           |
| PUBH 510                               | Intro to Epidemiology                                        | 3         |
| PUBH 520                               | Fundamentals of Biostatistics                                | 3         |
| Complete two of the following courses: |                                                              | 6         |
| PUBH 591                               | Special Topics/Experimental (Epidemiology and Control)       |           |
| PUBH 612                               | Neuroepidemiology                                            |           |
| PUBH 613                               | Spatial Epidemiology in Geographic Information Systems (GIS) |           |
| PUBH 614                               | Environmental and Occupational Epidemiology                  |           |
| PUBH 615                               | Infectious Disease Epidemiology and Control                  |           |
| PUBH 620                               | Advanced Quantitative Methods in Public Health I             |           |
| PUBH 621                               | Advanced Quantitative Methods in Public Health II            |           |
| <b>Total Hours</b>                     |                                                              | <b>12</b> |

## Global Health Graduate Certificate

### General Graduate Program Requirements

Graduate School policies and standards can be found on the Graduate School Policies page (p. 440).

The minimum GPA for any graduate program is 3.0. Individual programs may require more than a 3.0 to remain in good standing.

The minimum grade for a course to be accepted toward any master's or doctoral requirement is C. The minimum grade for a course to be

accepted toward a certificate program is B-. Individual programs may require higher grades for specific courses.

## Online Program Option

This program may be completed in an online format (<https://catalog.umn.edu/online-programs/definitions/>). Students interested in pursuing an online degree or certificate program are strongly encouraged to contact the offering department to discuss specific program and course modalities (<https://catalog.umn.edu/online-programs/definitions/>) and create a plan of study with an academic advisor. The course requirements listed below may not be consistently offered via online delivery.

## Graduate Certificate - Global Health

### Course Requirements

| Code                                          | Title                                        | Hours     |
|-----------------------------------------------|----------------------------------------------|-----------|
| <b>Complete all of the following courses:</b> |                                              |           |
| CHTH 514                                      | Health and Culture                           | 3         |
| PUBH 580                                      | Rural Health Issues Global Context           | 3         |
| PUBH 510                                      | Intro to Epidemiology                        | 3         |
| or PUBH 520                                   | Fundamentals of Biostatistics                |           |
| <b>Complete one of the following courses:</b> |                                              | <b>3</b>  |
| ANTY 433                                      | Indigenous Global Health & Healing           |           |
| COMX 415                                      | Intercultural Communication                  |           |
| PSCI 431                                      | Politics of Global Migration                 |           |
| PSCI 463                                      | Development Administration                   |           |
| PUBH 535                                      | Health Policy                                |           |
| PUBH 540                                      | Social & Behavioral Science in Public Health |           |
| PUBH 544                                      | CBPR Methods for Health                      |           |
| PUBH 560                                      | Environmental & Rural Health                 |           |
| <b>Total Hours</b>                            |                                              | <b>12</b> |

## Public Health Administration Graduate Certificate

### General Graduate Program Requirements

Graduate School policies and standards can be found on the Graduate School Policies page (p. 440).

The minimum GPA for any graduate program is 3.0. Individual programs may require more than a 3.0 to remain in good standing.

The minimum grade for a course to be accepted toward any master's or doctoral requirement is C. The minimum grade for a course to be accepted toward a certificate program is B-. Individual programs may require higher grades for specific courses.

## Online Program Option

This program may be completed in an online format (<https://catalog.umn.edu/online-programs/definitions/>). Students interested in pursuing an online degree or certificate program are strongly encouraged to contact the offering department to discuss specific program and course modalities (<https://catalog.umn.edu/online-programs/definitions/>) and create a plan of study with an academic advisor. The course

requirements listed below may not be consistently offered via online delivery.

## Graduate Certificate - Public Health Administration

- The Certificate of Public Health Administration (CPHA) requires the completion of 12 credits and can be accomplished completely online.
- The CPHA will provide students with a general overview of public health and healthcare systems at the global, national, state and local levels.

### Course Requirements

| Code                                          | Title                                        | Hours     |
|-----------------------------------------------|----------------------------------------------|-----------|
| <b>Complete all of the following courses:</b> |                                              |           |
| PUBH 530                                      | Public Health Administration and Management  | 3         |
| or PUBH 535                                   | Health Policy                                |           |
| PUBH 540                                      | Social & Behavioral Science in Public Health | 3         |
| <b>Complete two of the following courses:</b> |                                              | <b>6</b>  |
| PUAD 501                                      | Public Administration                        |           |
| PUAD 503                                      | Policy Analysis                              |           |
| PUAD 504                                      | Organization Theory                          |           |
| PUAD 505                                      | Budgeting & Finance                          |           |
| PUAD 522                                      | Human Resource Management                    |           |
| PUBH 530                                      | Public Health Administration and Management  |           |
| or PUBH 535                                   | Health Policy                                |           |
| PUBH 550                                      | Program Evaluation & Research Methods        |           |
| <b>Total Hours</b>                            |                                              | <b>12</b> |

## Public Health Graduate Certificate

### General Graduate Program Requirements

Graduate School policies and standards can be found on the Graduate School Policies page (p. 440).

The minimum GPA for any graduate program is 3.0. Individual programs may require more than a 3.0 to remain in good standing.

The minimum grade for a course to be accepted toward any master's or doctoral requirement is C. The minimum grade for a course to be accepted toward a certificate program is B-. Individual programs may require higher grades for specific courses.

## Online Program Option

This program may be completed in an online format (<https://catalog.umn.edu/online-programs/definitions/>). Students interested in pursuing an online degree or certificate program are strongly encouraged to contact the offering department to discuss specific program and course modalities (<https://catalog.umn.edu/online-programs/definitions/>) and create a plan of study with an academic advisor. The course requirements listed below may not be consistently offered via online delivery.

## Graduate Certificate - Public Health

- The Certificate of Public Health requires the completion of 12 credits and can be accomplished completely online.
- Students in the CPH Program may take 4 public health core courses, or 3 core and 1 public health elective course.

### Course Requirements

| Code                                                                                           | Title                                                  | Hours     |
|------------------------------------------------------------------------------------------------|--------------------------------------------------------|-----------|
| <b>Complete three or four of the following core courses:</b>                                   |                                                        | <b>12</b> |
| PUBH 520<br>or STAT 451                                                                        | Fundamentals of Biostatistics<br>Statistical Methods I |           |
| STAT 457<br>& STAT 452                                                                         | Computer Data Analysis I<br>and Statistical Methods II |           |
| STAT 458                                                                                       | Computer Data Analysis II                              |           |
| PUBH 510                                                                                       | Intro to Epidemiology                                  |           |
| PUBH 530                                                                                       | Public Health Administration and Management            |           |
| PUBH 535                                                                                       | Health Policy                                          |           |
| PUBH 540                                                                                       | Social & Behavioral Science in Public Health           |           |
| PUBH 550                                                                                       | Program Evaluation & Research Methods                  |           |
| PUBH 560                                                                                       | Environmental & Rural Health                           |           |
| PUBH 570                                                                                       | Ethical Issues in Public Health                        |           |
| PUBH 580                                                                                       | Rural Health Issues Global Context                     |           |
| PUBH 595                                                                                       | Practicum                                              |           |
| PUBH 599                                                                                       | Professional Paper/ILE                                 |           |
| <b>Complete one of the following elective courses if completing three of the core courses:</b> |                                                        |           |
| PUBH 525                                                                                       | Multicultural/Native American Public Health            |           |
| PUBH 545                                                                                       | Issues in Maternal and Child Health                    |           |
| PUBH 590                                                                                       | Research                                               |           |
| PUBH 591                                                                                       | Special Topics/Experimental                            |           |
| PUBH 592                                                                                       | Independent Study                                      |           |
| <b>Total Hours</b>                                                                             |                                                        | <b>12</b> |

## School of Social Work

- Master of Social Work (M.S.W.) (p. 508)

## Master of Social Work (M.S.W.)

### General Graduate Program Requirements

Graduate School policies and standards can be found on the Graduate School Policies page (p. 440).

The minimum GPA for any graduate program is 3.0. Individual programs may require more than a 3.0 to remain in good standing.

The minimum grade for a course to be accepted toward any master's or doctoral requirement is C. The minimum grade for a course to be accepted toward a certificate program is B-. Individual programs may require higher grades for specific courses.

## Online Program Option

This program may be completed in an online format (<https://catalog.umd.edu/online-programs/definitions/>). Students interested in pursuing an online degree or certificate program are strongly encouraged to contact the offering department to discuss specific program and course modalities (<https://catalog.umd.edu/online-programs/definitions/>) and create a plan of study with an academic advisor. The course requirements listed below may not be consistently offered via online delivery.

## Master of Social Work

### Course Requirements

| Code                                   | Title                                     | Hours     |
|----------------------------------------|-------------------------------------------|-----------|
| <b>Generalist Required Courses</b>     |                                           |           |
| Complete all of the following courses: |                                           |           |
| S W 500                                | Orientation                               | 1         |
| S W 505                                | Foundations of Social Work Practice       | 2         |
| S W 510                                | Human Behavior and Social Environment I   | 3         |
| S W 511                                | Human Behavior and Social Intervention II | 3         |
| S W 515                                | Practice with Individuals & Families      | 3         |
| S W 520                                | Social Work Research Methods              | 3         |
| S W 525                                | Practicum in Groups & Communities         | 4         |
| S W 530                                | History of Social Policy                  | 3         |
| S W 532                                | Indian Child Welfare Act                  | 1         |
| S W 576                                | Found Integrative Seminar I               | 1         |
| S W 577                                | Found Integrative Seminar II              | 1         |
| S W 586                                | Foundation Practicum I                    | 2         |
| S W 587                                | Foundation Practicum II                   | 2         |
| <b>Specialized Required Courses</b>    |                                           |           |
| Complete all of the following courses: |                                           |           |
| S W 521                                | Advanced Research                         | 3         |
| S W 531                                | Social Policy Analysis                    | 3         |
| S W 535                                | Advanced Practice                         | 4         |
| S W 545                                | Organizational Leadership                 | 3         |
| S W 578                                | Advanced Seminar I                        | 1         |
| S W 579                                | Advanced Seminar II                       | 1         |
| S W 588                                | Concentration Practicum I                 | 3         |
| S W 589                                | Concentration Practicum II                | 3         |
| S W 599                                | Professional Portfolio                    | 1         |
| <b>Total Hours</b>                     |                                           | <b>51</b> |

### Optional Micro-Practice Emphasis

Micro practice emphasizes the development of clinical skills and a repertoire of theoretical knowledge relevant to direct practice with individuals, small groups, couples, and families. Students concentrating in micro practice will complete specialization-year practicum hours in settings that provide opportunities for direct clinical practice, such as community, school-based, and residential mental health programs, child and family services, hospice care, and medical settings. Students choose elective courses that further their development of knowledge and skills for clinical practice.

| Code                        | Title                                                   | Hours |
|-----------------------------|---------------------------------------------------------|-------|
| Possible electives include: |                                                         |       |
| S W 420                     | Child Abuse/Child Welfare                               | 3     |
| S W 423                     | Addiction Studies                                       | 3     |
| S W 450                     | Children and Youth at Risk                              | 3     |
| S W 455                     | Social Gerontology                                      | 3     |
| S W 475                     | Death, Dying and Grief                                  | 3     |
| S W 551                     | Couples and Family Therapy                              | 3     |
| S W 552                     | Differential Diagnosis in Clinical Social Work Practice | 3     |
| S W 553                     | Social Work Addictions                                  | 3     |

### Optional Macro-Practice Emphasis

Macro practice emphasizes the development of skills and a repertoire of theoretical knowledge relevant to community, organizational, and political practice (e.g. program planning and development, neighborhood development, organizational administration and management, community organizing, and legislative advocacy). Students concentrating in macro practice will complete concentration-year practicum hours in settings that provide opportunities to develop skills in planning, development, advocacy, and social action, such as local and regional development corporations, social action and rights-based organizations, and action-research centers. Students choose electives that further development of their skills in community building, organization, and advocacy. Possible electives and certificate programs can be found on the UM Graduate School website.

Extra-departmental courses, as well as graduate-level courses in other relevant disciplines such as environmental studies, political science, and sociology may also be taken as electives. You will be informed of new electives courses offered by the School of Social Work as they are added.

### Master of Social Work Advanced Standing Program

The Advanced Standing Program, offered synchronously online, provides students who have earned a Bachelor of Social Work or a Bachelor of Arts in Social Work from an accredited Social Work program the opportunity to complete their Master of Social Work in an accelerated format. Rather than 60 credits, students in the Advanced Standing Program will complete a 9 credit summer bridge program and then move into the existing specialization year curriculum for a total of 37 credits.

### Course Requirements

| Code                                          | Title                                               | Hours |
|-----------------------------------------------|-----------------------------------------------------|-------|
| <b>Complete all of the following courses:</b> |                                                     |       |
| S W 500                                       | Orientation                                         | 1     |
| S W 505                                       | Foundations of Social Work Practice                 | 2     |
| S W 521                                       | Advanced Research                                   | 3     |
| S W 530                                       | History of Social Policy                            | 3     |
| S W 531                                       | Social Policy Analysis                              | 3     |
| S W 532                                       | Indian Child Welfare Act                            | 1     |
| S W 535                                       | Advanced Practice                                   | 4     |
| S W 545                                       | Organizational Leadership                           | 3     |
| S W 591                                       | Special Topics (Critical Practice Skills Refresher) | 3     |

|                    |                            |           |
|--------------------|----------------------------|-----------|
| S W 578            | Advanced Seminar I         | 1         |
| S W 579            | Advanced Seminar II        | 1         |
| S W 588            | Concentration Practicum I  | 3         |
| S W 589            | Concentration Practicum II | 3         |
| S W 599            | Professional Portfolio     | 1         |
| Electives          |                            | 5         |
| <b>Total Hours</b> |                            | <b>37</b> |

## School of Speech Language and Occupational Sciences

- Occupational Therapy, Doctor of (p. 509)
- Occupational Therapy, Doctor of - Post-Professional (p. 509)
- Speech Language Pathology M.S. (p. 510)
- Speech, Language, and Hearing Sciences Ph.D. (p. 511)

## Occupational Therapy, Doctor of

The Occupational Therapy program at the University of Montana seeks to prepare occupational therapists who have a broad base of skills upon graduation and who will be able to implement occupational therapy services in many settings, including rural environments. Occupational therapists serve not only as a provider of direct patient care, but also fulfill the roles of administrator, supervisor, teacher, consultant, and researcher in a variety of venues and with various populations. Students successfully completing the professional program meet the competencies for occupational therapy as determined by the Accreditation Council for Occupational Therapy Education (ACOTE), receive a Doctor of Occupational Therapy (OTD) degree, are eligible for board certification through NBCOT, and are prepared for state licensure.

## Occupational Therapy, Doctor of - Post-Professional

Current licensed occupational therapists with baccalaureate or master-level credentials wishing to elevate their qualification to the doctoral level are invited to apply to our post-professional Doctor of Occupational Therapy program administered in partnership with Rehab Essentials, Inc. This program is delivered 100% online in either five or seven semesters dependent on the highest-level Occupational Therapy degree a student has attained.

## General Graduate Program Requirements

Graduate School policies and standards can be found on the Graduate School Policies page (p. 440).

The minimum GPA for any graduate program is 3.0. Individual programs may require more than a 3.0 to remain in good standing.

The minimum grade for a course to be accepted toward any master's or doctoral requirement is C. The minimum grade for a course to be accepted toward a certificate program is B-. Individual programs may require higher grades for specific courses.

## Online Program Option

This program may be completed in an online format (<https://catalog.umn.edu/online-programs/definitions/>). Students interested in pursuing an online degree or certificate program are strongly encouraged

to contact the offering department to discuss specific program and course modalities (<https://catalog.umd.edu/online-programs/definitions/>) and create a plan of study with an academic advisor. The course requirements listed below may not be consistently offered via online delivery.

## Doctor of Occupational Therapy - Post-Professional

### Course Requirements

| Code                                          | Title                                                                             | Hours     |
|-----------------------------------------------|-----------------------------------------------------------------------------------|-----------|
| <b>Complete all of the following courses:</b> |                                                                                   |           |
| O T 650                                       | Advanced Occupational Therapy Theory, Concepts, & Application                     | 3         |
| O T 651                                       | Professional & Ethical Reasoning in Occupational Therapy                          | 3         |
| O T 652                                       | OT Evidence Based Practice: Methods & Applications                                | 3         |
| O T 653                                       | Methods of Evaluation in Occupational Therapy Practice                            | 2         |
| O T 654                                       | Professionalism: The Doctoring Profession in Occupational Therapy                 | 2         |
| O T 655                                       | Occupational Therapy in Prevention, Health, & Disability                          | 3         |
| O T 656                                       | Occupational Therapy Outcomes Measurement and Program Evaluation                  | 3         |
| O T 657                                       | Personal Leadership for the Health Professional: Essentials to Transform Practice | 3         |
| O T 658                                       | Capstone Preparation                                                              | 2         |
| O T 659                                       | The Teaching and Learning Continuum of Education for OTs                          | 2         |
| O T 661                                       | Trends in Occupational Therapy Practice *                                         | 3         |
| O T 662                                       | Technology in Occupational Therapy *                                              | 2         |
| O T 663                                       | Leading Change in Occupational Therapy *                                          | 2         |
| O T 664                                       | Occupational Science & Health *                                                   | 2         |
| O T 665                                       | Career Pathways and Professional Growth for Occupational Therapists *             | 2         |
| <b>Total Hours</b>                            |                                                                                   | <b>37</b> |

\* Course required for the bachelor to OTD track only.

## Speech Language Pathology M.S.

Graduate students in Speech Language Pathology have the opportunity to work closely with ASHA-certified faculty/supervisors and engage in extensive experience and specialized training in various aspects of speech, language, literacy, swallowing, and hearing.

### Program Delivery Options

#### On-Campus Students

On-campus students follow a traditional classroom structure by attending courses face-to-face on the UM campus. Practica are completed every semester throughout the graduate program and begin as a clinical practicum in the University of Montana's RiteCare Speech, Language, and Hearing Clinic their first semester in the graduate program. Subsequent off-campus practica, typically after the first two

semesters of graduate school, take place in off-campus sites and can be arranged throughout the state and country.

On-campus students are able to complete the M.S. in Speech Language Pathology in a minimum of 4 semesters and 1 summer term.

Part-time options are also available.

#### Distance Students

Distance students participate synchronously in all academic courses with students on campus via web-broadcasting. They will begin a clinical practicum at the University of Montana's RiteCare Speech, Language, and Hearing Clinic on the University of Montana campus in the summer term following two semesters of academic study. Practica will continue throughout the remainder of the graduate program in off-campus sites and can be arranged throughout the state and country.

Distance students are able to complete the program in a minimum of 4 semesters and 2 summer terms.

## General Graduate Program Requirements

Graduate School policies and standards can be found on the Graduate School Policies page (p. 440).

The minimum GPA for any graduate program is 3.0. Individual programs may require more than a 3.0 to remain in good standing.

The minimum grade for a course to be accepted toward any master's or doctoral requirement is C. The minimum grade for a course to be accepted toward a certificate program is B-. Individual programs may require higher grades for specific courses.

## Online Program Option

This program may be completed in an online format (<https://catalog.umd.edu/online-programs/definitions/>). Students interested in pursuing an online degree or certificate program are strongly encouraged to contact the offering department to discuss specific program and course modalities (<https://catalog.umd.edu/online-programs/definitions/>) and create a plan of study with an academic advisor. The course requirements listed below may not be consistently offered via online delivery.

## Master of Science - Speech Language Pathology

The Master of Science in Speech Language Pathology requires:

- 35 credits of graduate program core courses, a majority of which focus on developmental and acquired communication and swallowing disorders. Some of these requirements may be waived with departmental approval depending on the student's undergraduate coursework, allowing a minimum of 32 credits of core courses.
- Either a graduate thesis (6 credits) or graduate non-thesis portfolio project (3 credits).
- Clinical education coursework, which includes:
  - 30 credits of clinical practicum, including specialty clinics and direct experiences across multiple settings.
  - Intervening with clients across the lifespan with developmental, acquired, and swallowing disorders with progressively more independence (3 practicum levels) to develop clinical skill and competency in multiple settings.



- A minimum of 375 supervised clock hours. 25 hours of guided observation must be completed before beginning clinical practicum.
- For additional information about clinical education in Speech Language Pathology, see the School of Speech, Language, Hearing, and Occupational Sciences website (<https://www.umt.edu/speech-language-hearing-occupational-sciences/default.php>).
- Some students may need to complete multiple undergraduate or Standard IV area requirements (not completed prior to graduate school), such as CSD 450, in order to be eligible for ASHA certification or other Standard IV-A (<https://www.asha.org/Certification/2020-SLP-Certification-Standards/#4>) courses.

## Course Requirements

| Code                                   | Title                                                                       | Hours        |
|----------------------------------------|-----------------------------------------------------------------------------|--------------|
| <b>Core Requirements</b>               |                                                                             |              |
| Complete all of the following courses: |                                                                             |              |
| SLP 520                                | Speech Sound Disorders                                                      | 3            |
| SLP 530                                | Voice & Resonance Disorders                                                 | 3            |
| SLP 535                                | Motor Speech Disorders                                                      | 3            |
| SLP 540                                | Fluency Disorders                                                           | 2            |
| SLP 545                                | Social Communication Skills, Behavior, and Neurodiversity                   | 2            |
| SLP 546                                | AAC Complex Communication II                                                | 1            |
| SLP 550                                | Language Assessment and Intervention for Children Infants through Preschool | 3            |
| SLP 560                                | Dx /Tx School-Age Lang                                                      | 3            |
| SLP 565                                | Aphasia                                                                     | 3            |
| SLP 566                                | Acquired Cognitive-Communication Disorders                                  | 3            |
| SLP 570                                | Clinic Proc/Pro Pract I (repeated for a total of 2 credits)                 | 2            |
| SLP 575                                | Advanced Clinic Proc II                                                     | 1            |
| SLP 600                                | Research Methods                                                            | 3            |
| SLP 640                                | Swallowing Disorders                                                        | 3            |
| <b>Practicum Requirements</b>          |                                                                             |              |
| Complete all of the following courses: |                                                                             |              |
| SLP 571                                | Found Applied Clinic Srv/Lrn                                                | 6            |
| SLP 576                                | Advanced Applied Clinic II                                                  | 12           |
| SLP 675                                | Clinical Ext/ Adv Practicum                                                 | 12           |
| <b>Thesis/Capstone</b>                 |                                                                             |              |
| Complete one of the following courses: |                                                                             | 3-6          |
| SLP 588                                | Master of Science Capstone Portfolio (3 credits)                            |              |
| SLP 599                                | Master of Science Thesis (6 credits)                                        |              |
| <b>Total Hours</b>                     |                                                                             | <b>68-71</b> |

# Speech, Language, and Hearing Sciences Ph.D.

## General Graduate Program Requirements

Graduate School policies and standards can be found on the Graduate School Policies page (p. 440).

The minimum GPA for any graduate program is 3.0. Individual programs may require more than a 3.0 to remain in good standing.

The minimum grade for a course to be accepted toward any master's or doctoral requirement is C. The minimum grade for a course to be accepted toward a certificate program is B-. Individual programs may require higher grades for specific courses.

## Doctor of Philosophy - Speech, Language, and Hearing Sciences

- The program is made up of a combination of 60 credits of coursework and professional products courses, the preliminary comprehensive competency exam, and a dissertation.
- Students must pass a preliminary comprehensive competency exam that includes disciplinary knowledge, a critique of a research manuscript, and design of an experimental research study.
- In addition, students complete professional products courses in areas critical for the success of faculty or professionals in the speech, language, and hearing sciences that include the following:
  - research,
  - conference presentation,
  - writing for publication,
  - systematic review of research literature,
  - grant writing,
  - college teaching, and/or
  - supervision.
- Following the successful completion of coursework, the preliminary comprehensive competency exam, and professional products courses, students complete a directed research dissertation experience that contributes to the advancement of the field of speech, language, and hearing sciences.
- Full-time students entering with their completed masters' degree in an area related to speech, language, and hearing sciences can complete the PhD in 3-4 years.

## Course Requirements

| Code                                                                                                                                                                  | Title                      | Hours |
|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------|----------------------------|-------|
| <b>Core Coursework</b>                                                                                                                                                |                            |       |
| Complete all of the following courses:                                                                                                                                |                            |       |
| SLP 681                                                                                                                                                               | Topics in Language Science | 2     |
| SLP 682                                                                                                                                                               | Topics in Speech Science   | 2     |
| SLP 683                                                                                                                                                               | Topics in Hearing Science  | 2     |
| SLP 694                                                                                                                                                               | Grad Seminar               | 3     |
| <b>Content Specialization Coursework</b>                                                                                                                              |                            |       |
| Complete 6 graduate-level credits in content specialization. Below is a list of subject areas across campus that offer relevant courses. This list is not exhaustive. |                            | 6     |
| SLP                                                                                                                                                                   | Speech Language Pathology  |       |
| PSYX                                                                                                                                                                  | Psychology                 |       |
| BMED                                                                                                                                                                  | Biomedical Sciences        |       |
| LING                                                                                                                                                                  | Linguistics                |       |
| PUBH                                                                                                                                                                  | Public Health              |       |

### Research Preparation Coursework

Complete 15 credits of research preparation coursework in the following content areas:

Quantitative Research Methods:

|                                                                           |                                              |           |
|---------------------------------------------------------------------------|----------------------------------------------|-----------|
| SLP 600                                                                   | Research Methods                             |           |
| EDLD 625                                                                  | Quantitative Research                        |           |
| PSYX 523                                                                  | Research Design                              |           |
| Advanced Statistics:                                                      |                                              |           |
| PSYX 520                                                                  | Advanced Psychological Statistics I          |           |
| EDLD 519                                                                  | Measurement and Analysis of Educational Data |           |
| PUBH 520                                                                  | Fundamentals of Biostatistics                |           |
| Additional courses in research methods                                    |                                              |           |
| <b>Related Areas Coursework</b>                                           |                                              |           |
| Complete 9 credits of courses selected in consultation with your advisor. |                                              | 9         |
| <b>Preliminary Exam</b>                                                   |                                              |           |
| Complete the following course:                                            |                                              |           |
| SLP 692                                                                   | Independent Study (Preliminary Exam)         | 3         |
| <b>Comprehensive Professional Products</b>                                |                                              |           |
| Complete 9 credits of the following courses:                              |                                              | 9         |
| SLP 690                                                                   | Research                                     |           |
| SLP 695                                                                   | Practicum                                    |           |
| SLP 696                                                                   | Service Learning: Professional Service       |           |
| SLP 698                                                                   | Internship                                   |           |
| <b>Dissertation</b>                                                       |                                              |           |
| Complete 9 credits of the following course:                               |                                              |           |
| SLP 699                                                                   | Thesis                                       | 9         |
| <b>Total Hours</b>                                                        |                                              | <b>60</b> |

<sup>1</sup> Speak with your advisor about which special topics courses meet this requirement.

## Skaggs School of Pharmacy

- Biomedical and Pharmaceutical Sciences Graduate Programs (p. 512)
  - Pharmaceutical Sciences and Drug Design M.S. (p. 512)
  - Pharmaceutical Sciences and Drug Design Ph.D. (p. 513)
  - Toxicology M.S. (p. 514)
  - Toxicology Ph.D. (p. 514)

Information on the Doctor of Pharmacy (PharmD) (p. 193) degree can be found in the undergraduate section of the catalog.

## Biomedical and Pharmaceutical Sciences Graduate Programs

- Pharmaceutical Sciences and Drug Design M.S. (p. 512)
- Pharmaceutical Sciences and Drug Design Ph.D. (p. 513)
- Toxicology M.S. (p. 514)
- Toxicology Ph.D. (p. 514)

## Pharmaceutical Sciences and Drug Design M.S.

The Graduate Program in Pharmaceutical Sciences and Drug Design provides advanced training in basic, translational, and clinical research

within the pharmaceutical sciences and prepares students for career opportunities in academia, pharmaceutical and biotechnology industries, and governmental agencies. It is one of five programs coordinated through the Molecular and Biomedical Sciences Umbrella (<https://www.umt.edu/molecular-biological-sciences/>).

The Pharmaceutical Sciences and Drug Design program is aimed at designing effective new drug therapies while minimizing adverse effects. Research in the program includes a diverse range of therapeutic areas including cancer, cardiovascular, dermatological, immune-mediated, neurological, and psychiatric diseases. Students receive didactic and laboratory training in the design and development of pharmacological compounds including the disciplines of molecular and cellular pharmacology (drug target and biomarker discovery), medicinal chemistry (drug design and synthesis), pharmacokinetics (drug absorption, distribution, metabolism, and elimination), pharmaceutics (drug delivery and formulation), pharmacogenomics (genetic basis for drug response) and toxicology (drug-induced toxicity). A unique feature of the PSDD program a focus on health equity for rural and underserved populations.

The Graduate Program is highly collaborative within the broader University of Montana research community with diverse opportunities for study and research at the interface of chemistry, biochemistry, cell and structure biology, computation, and genetics with emphases on issues of pharmaceutical and biomedical importance. Faculty in the program are also closely aligned with several multidisciplinary research Centers and Institutes at the University of Montana including the Center for Biomolecular Structure and Dynamics (<https://www.umt.edu/center-biomolecular-structure-dynamics/>), the Center for Environmental Health Sciences (<https://cehsweb.health.umt.edu/>), the Center for Structural Functional Neuroscience (<https://www.umt.edu/center-structural-functional-neuroscience/>), the Montana Biotechnology Center (<https://www.umt.edu/montana-biotechnology-center/>), and the L.S. Skaggs Institute for Health Innovation (<https://www.umt.edu/skaggs-institute-health-innovation/default.php>).

## Dual Degree in the Doctor of Pharmacy and the MS in Pharmaceutical Sciences and Drug Design

Students have the option of completing a dual-degree pathway toward the Doctor of Pharmacy (p. 193) and the M.S. in Pharmaceutical Sciences and Drug Design. This pathway allows students to substitute coursework taken as part of the Doctor of Pharmacy program for requirements in the M.S.

## General Graduate Program Requirements

Graduate School policies and standards can be found on the Graduate School Policies page (p. 440).

The minimum GPA for any graduate program is 3.0. Individual programs may require more than a 3.0 to remain in good standing.

The minimum grade for a course to be accepted toward any master's or doctoral requirement is C. The minimum grade for a course to be accepted toward a certificate program is B-. Individual programs may require higher grades for specific courses.

## Master of Science - Pharmaceutical Sciences and Drug Design

Graduate students will rotate through the laboratories of at least two faculty members during their first year in the program, after which

students will choose a faculty research advisor, advisory committee, and a thesis/professional paper research project.

## Course Requirements

**Note:** Specialized electives chosen based on research interests may include classes offered in the Departments of Biomedical and Pharmaceutical Sciences, Chemistry and Biochemistry, and the Division of Biological Sciences.

| Code                                                           | Title                                                                  | Hours     |
|----------------------------------------------------------------|------------------------------------------------------------------------|-----------|
| <b>Complete all of the following courses:</b>                  |                                                                        |           |
| BMED 545                                                       | Research Lab Rotations in Pharmaceutical Science                       | 2         |
| BMED 594                                                       | Seminar                                                                | 1         |
| BMED 609                                                       | Biomedical Statistics                                                  | 3         |
| BMED 621                                                       | Drug Design: Medicinal Chemistry and Pharmacology                      | 3         |
| BMED 632                                                       | Drug Development: Pharmacokinetics                                     | 4         |
| BMED 637                                                       | Topics in Pharmaceutical Sciences and Drug Design (1 cr. per semester) | 4         |
| BMED 590                                                       | Research (MS)                                                          | 9         |
| BMED 599                                                       | Thesis/Professional Paper (MS)                                         | 1         |
| 3 credits of courses chosen in consultation with your advisor. |                                                                        | 3         |
| <b>Total Hours</b>                                             |                                                                        | <b>30</b> |

## Course Requirements for the Doctor of Pharmacy and M.S. in Pharmaceutical Sciences and Drug Design Dual-Degree Program

Dual degree Pharm.D./M.S. students are usually able to complete degree training within the time period of the Doctor of Pharmacy (p. 193) degree.

Students in this program may also optionally take PHAR 588, allowing students time to write and defend their thesis or professional paper.

| Code                                          | Title                                                                  | Hours     |
|-----------------------------------------------|------------------------------------------------------------------------|-----------|
| <b>Complete all of the following courses:</b> |                                                                        |           |
| BMED 594                                      | Seminar                                                                | 1         |
| BMED 637                                      | Topics in Pharmaceutical Sciences and Drug Design (1 cr. per semester) | 4         |
| PHAR 421                                      | Medicinal Chemistry I                                                  | 3         |
| PHAR 422                                      | Medicinal Chemistry II                                                 | 3         |
| PHAR 443                                      | Pharmacology & Toxicology I                                            | 4         |
| PHAR 444                                      | Pharmacology & Toxicology II                                           | 4         |
| PUBH 520                                      | Fundamentals of Biostatistics                                          | 3         |
| BMED 590                                      | Research (MS)                                                          | 9         |
| BMED 599                                      | Thesis/Professional Paper (MS)                                         | 1         |
| <b>Total Hours</b>                            |                                                                        | <b>32</b> |

## Pharmaceutical Sciences and Drug Design Ph.D.

The Graduate Program in Pharmaceutical Sciences and Drug Design provides advanced training in basic, translational, and clinical research within the pharmaceutical sciences and prepares students for career opportunities in academia, pharmaceutical and biotechnology industries,

and governmental agencies. It is one of five programs coordinated through the Molecular and Biomedical Sciences Umbrella (<https://www.umt.edu/molecular-biological-sciences/>).

The Pharmaceutical Sciences and Drug Design program is aimed at designing effective new drug therapies while minimizing adverse effects. Research in the program includes a diverse range of therapeutic areas including cancer, cardiovascular, dermatological, immune-mediated, neurological, and psychiatric diseases. Students receive didactic and laboratory training in the design and development of pharmacological compounds including the disciplines of molecular and cellular pharmacology (drug target and biomarker discovery), medicinal chemistry (drug design and synthesis), pharmacokinetics (drug absorption, distribution, metabolism, and elimination), pharmaceutics (drug delivery and formulation), pharmacogenomics (genetic basis for drug response) and toxicology (drug-induced toxicity). A unique feature of the PSDD program a focus on health equity for rural and underserved populations.

The Graduate Program is highly collaborative within the broader University of Montana research community with diverse opportunities for study and research at the interface of chemistry, biochemistry, cell and structure biology, computation, and genetics with emphases on issues of pharmaceutical and biomedical importance. Faculty in the program are also closely aligned with several multidisciplinary research Centers and Institutes at the University of Montana including the Center for Biomolecular Structure and Dynamics (<https://www.umt.edu/center-biomolecular-structure-dynamics/>), the Center for Environmental Health Sciences (<https://cehsweb.health.umt.edu/>), the Center for Structural Functional Neuroscience (<https://www.umt.edu/center-structural-functional-neuroscience/>), the Montana Biotechnology Center (<https://www.umt.edu/montana-biotechnology-center/>), and the L.S. Skaggs Institute for Health Innovation (<https://www.umt.edu/skaggs-institute-health-innovation/default.php>).

## General Graduate Program Requirements

Graduate School policies and standards can be found on the Graduate School Policies page (p. 440).

The minimum GPA for any graduate program is 3.0. Individual programs may require more than a 3.0 to remain in good standing.

The minimum grade for a course to be accepted toward any master's or doctoral requirement is C. The minimum grade for a course to be accepted toward a certificate program is B-. Individual programs may require higher grades for specific courses.

## Doctor of Philosophy - Pharmaceutical Sciences and Drug Design

Graduate students will rotate through the laboratories of at least two faculty members during their first year in the program, after which students will choose a faculty research advisor, advisory committee, and a dissertation research project.

## Course Requirements

**Note:** Specialized electives chosen based on research interests may include classes offered in the Departments of Biomedical and Pharmaceutical Sciences, Chemistry and Biochemistry, and the Division of Biological Sciences.

| Code                                          | Title                                                                  | Hours     |
|-----------------------------------------------|------------------------------------------------------------------------|-----------|
| <b>Complete all of the following courses:</b> |                                                                        |           |
| BMED 545                                      | Research Lab Rotations in Pharmaceutical Science                       | 2         |
| BMED 594                                      | Seminar (1 cr. per year starting in the second year)                   | 3         |
| BMED 605                                      | Biomedical Research Ethics                                             | 1         |
| BMED 609                                      | Biomedical Statistics                                                  | 3         |
| BMED 621                                      | Drug Design: Medicinal Chemistry and Pharmacology                      | 3         |
| BMED 632                                      | Drug Development: Pharmacokinetics                                     | 4         |
| BMED 637                                      | Topics in Pharmaceutical Sciences and Drug Design (1 cr. per semester) | 10        |
| BMED 690                                      | Research (PhD)                                                         | 33        |
| BMED 699                                      | Dissertation                                                           | 1         |
| <b>Total Hours</b>                            |                                                                        | <b>60</b> |

## Toxicology M.S.

### General Graduate Program Requirements

Graduate School policies and standards can be found on the Graduate School Policies page (p. 440).

The minimum GPA for any graduate program is 3.0. Individual programs may require more than a 3.0 to remain in good standing.

The minimum grade for a course to be accepted toward any master's or doctoral requirement is C. The minimum grade for a course to be accepted toward a certificate program is B-. Individual programs may require higher grades for specific courses.

### Master of Science - Toxicology

Students will rotate through the laboratories of at least two faculty members during their first year in the program, after which students will choose a faculty research advisor, advisory committee, and a thesis research project.

#### Course Requirements

**Note:** A minimum of 3 credits of BMED 590/BMED 599 is required by the Department for the M.S. degree. A maximum of 10 credits may be applied toward the 30-credit requirement for the M.S.

| Code                                   | Title                                            | Hours |
|----------------------------------------|--------------------------------------------------|-------|
| <b>Complete the following courses:</b> |                                                  |       |
| BCH 480                                | Advanced Biochemistry I                          | 3     |
| BMED 545                               | Research Lab Rotations in Pharmaceutical Science | 2     |
| BMED 583                               | Research Seminar in Toxicology                   | 1     |
| BMED 594                               | Seminar (Current Research Literature)            | 1     |
| BMED 605                               | Biomedical Research Ethics                       | 1     |
| BMED 609                               | Biomedical Statistics                            | 3     |
| BMED 626                               | Research Methods in Biochemical Pharmacology     | 2     |
| BMED 641                               | Toxicology I-Principles                          | 3     |
| BMED 628                               | Grantsmanship                                    | 1     |
| BMED 642                               | Toxicology II-Agents                             | 3     |
| BMED 590                               | Research (MS) <sup>1</sup>                       | 10    |

|                    |                                |
|--------------------|--------------------------------|
| or BMED 599        | Thesis/Professional Paper (MS) |
| <b>Total Hours</b> | <b>30</b>                      |

## Toxicology Ph.D.

### General Graduate Program Requirements

Graduate School policies and standards can be found on the Graduate School Policies page (p. 440).

The minimum GPA for any graduate program is 3.0. Individual programs may require more than a 3.0 to remain in good standing.

The minimum grade for a course to be accepted toward any master's or doctoral requirement is C. The minimum grade for a course to be accepted toward a certificate program is B-. Individual programs may require higher grades for specific courses.

### Doctor of Philosophy - Toxicology

Students will rotate through the laboratories of at least three faculty members during their first year in the program, after which students will choose a faculty research advisor, advisory committee, and a dissertation research project.

#### Course Requirements

| Code                                                    | Title                                            | Hours        |
|---------------------------------------------------------|--------------------------------------------------|--------------|
| <b>Required Courses</b>                                 |                                                  |              |
| <b>Complete all of the following courses:</b>           |                                                  |              |
| BCH 480                                                 | Advanced Biochemistry I                          | 3            |
| BMED 545                                                | Research Lab Rotations in Pharmaceutical Science | 3            |
| BMED 583                                                | Research Seminar in Toxicology                   | 1            |
| BMED 594                                                | Seminar (Current Research Literature)            | 1            |
| BMED 605                                                | Biomedical Research Ethics                       | 1            |
| BMED 609                                                | Biomedical Statistics                            | 3            |
| BMED 626                                                | Research Methods in Biochemical Pharmacology     | 2            |
| BMED 628                                                | Grantsmanship                                    | 1            |
| BMED 641                                                | Toxicology I-Principles                          | 3            |
| BMED 642                                                | Toxicology II-Agents                             | 3            |
| BMED 643                                                | Cellular & Molecular Toxicology                  | 3            |
| <b>Specialized Electives <sup>1</sup></b>               |                                                  |              |
| <b>Complete 6 credits of the following courses:</b>     |                                                  | <b>6</b>     |
| BCH 581                                                 | Physical Biochemistry                            |              |
| BCH 582                                                 | Proteins and Enzymes                             |              |
| BMED 591                                                | Special Topics                                   |              |
| BMED 644                                                | Immunopharmacology and Immunotoxicology          |              |
| BMED 645                                                | Respiratory Toxicology                           |              |
| BMED 647                                                | Topics in Toxicology                             |              |
| <b>Research and Dissertation</b>                        |                                                  |              |
| <b>Complete 30-40 credits of the following courses:</b> |                                                  | <b>30-40</b> |
| BMED 690                                                | Research (PhD)                                   |              |
| BMED 699                                                | Dissertation                                     |              |
| <b>Total Hours</b>                                      |                                                  | <b>60-70</b> |

<sup>1</sup> Specialized electives should be chosen based on research interests and may include courses offered in toxicology, immunology, biomedical and pharmaceutical sciences, biological sciences, chemistry, and biochemistry.

## College of Humanities and Sciences Graduate Programs

- Anthropology (p. 515)
  - Anthropology M.A. (p. 515)
  - Anthropology M.A. - Cultural Heritage (p. 516)
  - Anthropology M.A. - Forensic and Biological Anthropology (p. 517)
  - Anthropology M.A. - Linguistics (p. 518)
  - Anthropology Ph.D. (p. 518)
  - Anthropology Ph.D. - Cultural Heritage and Applied Anthropology (p. 519)
- Communication Studies (p. 520)
  - Communication Studies M.A. (p. 520)
- Economics (p. 521)
  - Economics M.A. (p. 521)
- English (p. 521)
  - Creative Writing M.F.A. - Fiction (p. 521)
  - Creative Writing M.F.A. - Nonfiction (p. 521)
  - Creative Writing M.F.A. - Poetry (p. 522)
  - English M.A. - Ecocriticism (p. 522)
  - English M.A. - Literature (p. 523)
- History (p. 523)
  - History M.A. (p. 523)
  - History Ph.D. (p. 525)
  - Public History Graduate Certificate (p. 527)
- Linguistics (p. 527)
  - Linguistics M.A. (p. 527)
- Philosophy (p. 528)
  - Environmental Ethics Graduate Certificate (p. 528)
  - Environmental Philosophy M.A. (p. 528)
- Political Science (p. 529)
  - Political Science M.A. (p. 529)
- Psychology (p. 530)
  - Psychology Ph.D. - Clinical Psychology (p. 530)
  - Psychology Ph.D. - Experimental Psychology (p. 531)
  - Psychology Ph.D. - School Psychology (p. 532)
  - School Psychology S.S.P. (p. 533)
- Sociology & Criminology (p. 534)
  - Sociology M.A. (p. 534)
  - Sociology M.A. - Criminology (p. 534)
  - Sociology M.A. - Inequality and Social Justice (p. 535)
- Women's, Gender, and Sexuality Studies (p. 536)
  - Women's, Gender, and Sexuality Studies Graduate Certificate (p. 536)

## Anthropology

- Anthropology M.A. (p. 515)
- Anthropology M.A. - Cultural Heritage (p. 516)
- Anthropology M.A. - Forensic and Biological Anthropology (p. 517)
- Anthropology M.A. - Linguistics (p. 518)
- Anthropology Ph.D. (p. 518)
- Anthropology Ph.D. - Cultural Heritage and Applied Anthropology (p. 519)

## Anthropology M.A.

### General Graduate Program Requirements

Graduate School policies and standards can be found on the Graduate School Policies page (p. 440).

The minimum GPA for any graduate program is 3.0. Individual programs may require more than a 3.0 to remain in good standing.

The minimum grade for a course to be accepted toward any master's or doctoral requirement is C. The minimum grade for a course to be accepted toward a certificate program is B-. Individual programs may require higher grades for specific courses.

### Master of Arts - Anthropology

Successful completion of the M.A. in Anthropology requires coursework, successful completion of a comprehensive evaluation, and significant original scholarly work. The Anthropology faculty expects that students will complete the requirements for the M.A. degree in two years.

Some background classes are required for all students in the Anthropology Graduate Program. These classes may have been taken previously as an undergraduate and may be used as electives.

- We strongly recommend one class in each of the four fields of Anthropology: cultural or social anthropology, linguistic anthropology, biological or physical anthropology, and archaeology.
- We strongly recommend one or more classes in statistics or quantitative methods.
- We strongly recommend one year of a second language.

### Course Requirements

| Code                                   | Title                                | Hours |
|----------------------------------------|--------------------------------------|-------|
| <b>Core Course</b>                     |                                      |       |
| Complete the following course:         |                                      |       |
| ANTY 500                               | Contemporary Anthropological Thought | 3     |
| <b>Methods</b>                         |                                      |       |
| Complete one of the following courses: |                                      | 3     |
| ANTY 401                               | Anthropological Data Analysis        |       |
| ANTY 412                               | Osteology                            |       |
| ANTY 413                               | Forensic and Mortuary Archaeology    |       |
| ANTY 431                               | Ethnographic Field Methods           |       |
| ANTY 451                               | Cultural Resource Management         |       |
| ANTY 452                               | GIS in Archaeology                   |       |
| ANTY 454                               | Lithic Technology                    |       |
| ANTY 455                               | Artifact Analysis                    | 3     |
| ANTY 466                               | Archaeological Survey                |       |



|          |                                        |
|----------|----------------------------------------|
| ANTY 467 | Archaeological Field School            |
| ANTY 476 | Methods for Native Languages           |
| ANTY 494 | Seminar/Workshop                       |
| ANTY 508 | Applied Anthropological Statistics     |
| ANTY 512 | Advanced Forensic Anthropology         |
| ANTY 602 | Cultural Heritage Policy & Practice    |
| LING 571 | Phonetics and Phonology                |
| LING 574 | Historical Linguistics                 |
| LING 575 | Linguistic Field Methods               |
| LING 584 | NA Indigenous Language and Linguistics |
| LING 589 | Morphology                             |

**Electives**

Complete three additional Anthropology (ANTY) or Native American Studies (NASX) courses. 12

**Thesis, Professional Project, or Non-Thesis Options**

Complete one of the following options: 12-18

**Thesis/Professional Project Option - Complete 12 credits of the following to achieve a total of 30 credits:**

ANTY 599 Thesis/Professional Project

Additional graduate-level courses

Defense of thesis or professional paper/project

**Non-Thesis Option - Complete 18 credits of the following to achieve a total of 36 credits:**

ANTY 590 Research

Additional Anthropology (ANTY) or Linguistics (LING) graduate seminar

Additional graduate-level courses

A scholarly work or portfolio

Review of the scholarly work or portfolio or a comprehensive examination

**Total Hours** 30-36

## Anthropology M.A. - Cultural Heritage

The M.A. in Anthropology with concentration in Cultural Heritage focuses on methods and theories related to preserving the culture, heritage, and diversity of all peoples. It is designed to produce professionals in the many areas of cultural heritage preservation who are firmly grounded in the fundamentals of anthropology. This is a broad concentration that can accommodate students with interests in a variety of areas, including:

- Cultural resource management, historic preservation, prehistoric archaeology, and similar archaeologically focused studies;
- Ethnohistory, tribal recognition, cultural preservation, language retention, and similar ethnographically focused studies;
- Museology, educational anthropology, public archaeology, and similar areas that focus on interpreting cultures for the general public.

The curriculum in this concentration is chosen in consultation with an appropriate faculty advisor who will help guide the student toward appropriate classes for fulfilling their goals. Since this concentration is designed to train professionals, the focus is on practical professional experiences, which may include an internship with an appropriate company or agency. This experience will result in a professional paper,

exhibit, portfolio, or other original creative work that is used to satisfy the M.A. degree requirements.

## General Graduate Program Requirements

Graduate School policies and standards can be found on the Graduate School Policies page (p. 440).

The minimum GPA for any graduate program is 3.0. Individual programs may require more than a 3.0 to remain in good standing.

The minimum grade for a course to be accepted toward any master's or doctoral requirement is C. The minimum grade for a course to be accepted toward a certificate program is B-. Individual programs may require higher grades for specific courses.

## Master of Arts - Anthropology; Cultural Heritage Concentration

Successful completion of an M.A. in Anthropology requires coursework, successful completion of a comprehensive evaluation, and significant original scholarly work. The Anthropology faculty expects that students will complete the requirements for the M.A. degree in two years.

Some background classes are required for all students in the Anthropology Graduate Program. These classes may have been taken previously as an undergraduate and may be used as electives.

- We strongly recommend one class in each of the four fields of Anthropology: cultural or social anthropology, linguistic anthropology, biological or physical anthropology, and archaeology.
- We strongly recommend one or more classes in statistics or quantitative methods.
- We strongly recommend one year of a second language.

## Course Requirements

| Code                                                   | Title                                  | Hours |
|--------------------------------------------------------|----------------------------------------|-------|
| <b>Core Courses</b>                                    |                                        |       |
| Complete all of the following courses:                 |                                        |       |
| ANTY 500                                               | Contemporary Anthropological Thought   | 3     |
| ANTY 601                                               | Research Design & Proposal Preparation | 3     |
| ANTY 602                                               | Cultural Heritage Policy & Practice    | 3     |
| <b>Cooperative Education or Field/Practical Course</b> |                                        |       |
| Complete 3 credits of the following:                   |                                        | 3     |
| ANTY 495                                               | Field Experience/Practicum             |       |
| ANTY 598                                               | Internship                             |       |
| <b>Methods</b>                                         |                                        |       |
| Complete one of the following courses:                 |                                        | 3     |
| ANTY 401                                               | Anthropological Data Analysis          |       |
| ANTY 412                                               | Osteology                              |       |
| ANTY 413                                               | Forensic and Mortuary Archaeology      |       |
| ANTY 431                                               | Ethnographic Field Methods             |       |
| ANTY 451                                               | Cultural Resource Management           |       |
| ANTY 452                                               | GIS in Archaeology                     |       |
| ANTY 454                                               | Lithic Technology                      |       |
| ANTY 455                                               | Artifact Analysis                      |       |
| ANTY 466                                               | Archaeological Survey                  |       |
| ANTY 467                                               | Archaeological Field School            |       |
| ANTY 476                                               | Methods for Native Languages           |       |

|          |                                        |
|----------|----------------------------------------|
| ANTY 494 | Seminar/Workshop                       |
| ANTY 508 | Applied Anthropological Statistics     |
| ANTY 512 | Advanced Forensic Anthropology         |
| LING 571 | Phonetics and Phonology                |
| LING 574 | Historical Linguistics                 |
| LING 575 | Linguistic Field Methods               |
| LING 584 | NA Indigenous Language and Linguistics |
| LING 589 | Morphology                             |

#### Thesis, Professional Project, or Non-Thesis Options

Complete one of the following options: 15-21

##### Thesis/Professional Project Option - Complete 15 credits of the following to achieve a total of 30 credits:

Additional graduate-level courses

ANTY 599 Thesis/Professional Project

Defense of thesis or professional paper/project

##### Non-Thesis Option - Complete 21 credits of the following to achieve a total of 36 credits:

ANTY 590 Research

Additional graduate-level courses

Comprehensive Evaluation or a reviewed scholarly work or portfolio

**Total Hours** 30-36

## Anthropology M.A. - Forensic and Biological Anthropology

There are three pathways to satisfy the requirements for the M.A. in Anthropology with a concentration in Forensic and Biological Anthropology:

### Thesis Track

Students following the thesis track will develop and demonstrate research skill by formulating a research project designed to contribute original knowledge to the field of forensic and biological anthropology, bioarchaeology, human variation, or human skeletal biology, with the findings presented in a thesis. Pursuing this track will help the student prepare to pursue a career as a forensic or physical/biological anthropologist or to continue their graduate education toward a doctorate.

### Professional Paper Track

Students who follow the professional paper track will develop and demonstrate competency by undertaking a project that results in a report, exhibit, or other scholarly contribution of the sort produced by professionals in the field. A scholarly work published in a refereed journal or other reviewed forum is also considered a professional paper. Due to the limited nature of our skeletal collection, many students choose to analyze a case from the teaching collection and produce a comprehensive case report. Pursuing this track will help the student prepare for a career as a forensic anthropologist or other career that emphasizes the practical application of skills in skeletal analysis.

### Portfolio Track

This is a non-thesis option. Students following the portfolio track will design a program in which they specify a set of goals and a set of courses and other experiences that lead to achievement of these goals. Students will demonstrate progress toward and satisfaction of their goals by collecting the work produced in their courses and other experiences

into a portfolio. This track requires more coursework than the thesis or professional paper tracks and is designed for students who do not plan to work professionally as forensic or physical/biological anthropologists or who plan to use their degree in another context, such as educators seeking an M.A. degree in a field of science.

## General Graduate Program Requirements

Graduate School policies and standards can be found on the Graduate School Policies page (p. 440).

The minimum GPA for any graduate program is 3.0. Individual programs may require more than a 3.0 to remain in good standing.

The minimum grade for a course to be accepted toward any master's or doctoral requirement is C. The minimum grade for a course to be accepted toward a certificate program is B-. Individual programs may require higher grades for specific courses.

## Master of Arts - Anthropology; Forensic and Biological Anthropology Concentration

Successful completion of an M.A. in Anthropology requires coursework, successful completion of a comprehensive evaluation, and significant original scholarly work. The Anthropology faculty expects that students will complete the requirements for the M.A. degree in two years.

Some background classes are required for all students in the Forensic and Biological Anthropology Graduate Program, which ideally will have been taken as an undergraduate prior to admittance. At least one course must have been taken in each of the following five areas, though it is possible with approval of the student's advisor for one course to count as both a forensic anthropology course and an osteology course. Students who enter the program without having previously completed these background courses must complete them before their M.A. degree is awarded. Students should understand that they may need more than the minimum number of credits to complete their M.A. degree.

- Forensic Anthropology - a lecture or lecture plus laboratory course covering the principles of forensic anthropology, such as ANT 414;
- Osteology - a laboratory or lecture plus laboratory course covering skeletal anatomy, such as ANT 412;
- An archaeological field experience, such as ANT 466 or ANT 495;
- General forensic science, such as CJUS 488;
- Statistics, such as ANT 508.

## Course Requirements

| Code                                                       | Title                                        | Hours |
|------------------------------------------------------------|----------------------------------------------|-------|
| <b>Core Courses</b>                                        |                                              |       |
| Complete all of the following courses:                     |                                              |       |
| ANTY 500                                                   | Contemporary Anthropological Thought         | 3     |
| or ANT 553                                                 | Evolutionary Archaeology                     |       |
| ANTY 510                                                   | Seminar on Human Variation & Evolution       | 3     |
| ANTY 512                                                   | Advanced Forensic Anthropology               | 3     |
| ANTY 513                                                   | Seminar in Bioarchaeology & Skeletal Biology | 3     |
| ANTY 515                                                   | Theory & Methods in Bioanthropology          | 3     |
| <b>Thesis, Professional Project, or Non-Thesis Options</b> |                                              |       |
| Complete one of the following options:                     |                                              | 15-21 |

|                                                                                                                    |                             |
|--------------------------------------------------------------------------------------------------------------------|-----------------------------|
| <b>Thesis/Professional Project Option - Complete 15 credits of the following to achieve a total of 30 credits:</b> |                             |
| ANTY 599                                                                                                           | Thesis/Professional Project |
| Additional graduate-level courses                                                                                  |                             |
| Defense of thesis or professional paper/project                                                                    |                             |
| <b>Non-Thesis Option - Complete 21 credits of the following to achieve a total of 36 credits:</b>                  |                             |
| ANTY 590                                                                                                           | Research                    |
| Additional graduate-level courses                                                                                  |                             |
| A reviewed scholarly work or portfolio or a comprehensive evaluation                                               |                             |
| <b>Total Hours</b>                                                                                                 | <b>30-36</b>                |

## Anthropology M.A. - Linguistics

### General Graduate Program Requirements

Graduate School policies and standards can be found on the Graduate School Policies page (p. 440).

The minimum GPA for any graduate program is 3.0. Individual programs may require more than a 3.0 to remain in good standing.

The minimum grade for a course to be accepted toward any master's or doctoral requirement is C. The minimum grade for a course to be accepted toward a certificate program is B-. Individual programs may require higher grades for specific courses.

## Master of Arts - Anthropology; Linguistics Concentration

### Course Requirements

| Code                                                                                                              | Title                                | Hours       |
|-------------------------------------------------------------------------------------------------------------------|--------------------------------------|-------------|
| <b>Complete all of the following courses:</b>                                                                     |                                      |             |
| ANTY 500                                                                                                          | Contemporary Anthropological Thought | 3           |
| LING 470                                                                                                          | Linguistic Analysis                  | 3           |
| LING 573                                                                                                          | Language and Culture                 | 3           |
| <b>Complete one of the following courses:</b>                                                                     |                                      | <b>3</b>    |
| LING 571                                                                                                          | Phonetics and Phonology              |             |
| LING 572                                                                                                          | Syntax                               |             |
| LING 589                                                                                                          | Morphology                           |             |
| <b>Elective Courses - Complete all of the following:</b>                                                          |                                      | <b>12</b>   |
| 3 additional Anthropology (ANTY) graduate courses.                                                                |                                      |             |
| 1 additional Linguistics (LING) graduate course                                                                   |                                      |             |
| <b>Thesis, Professional Project, or Non-Thesis Options - Complete one of the following options:</b>               |                                      | <b>6-12</b> |
| <b>Thesis/Professional Project Option - Complete 6 credits of the following to achieve a total of 30 credits:</b> |                                      |             |
| ANTY 599                                                                                                          | Thesis/Professional Project          |             |
| Defense of thesis or professional paper/project                                                                   |                                      |             |
| <b>Non-Thesis Option - Complete 12 credits of the following to achieve a total of 36 credits:</b>                 |                                      |             |
| ANTY 590                                                                                                          | Research                             |             |
| Additional graduate-level courses                                                                                 |                                      |             |

|                                                                      |              |
|----------------------------------------------------------------------|--------------|
| A reviewed scholarly work or portfolio or a comprehensive evaluation |              |
| <b>Total Hours</b>                                                   | <b>30-36</b> |

## Anthropology Ph.D.

### General Graduate Program Requirements

Graduate School policies and standards can be found on the Graduate School Policies page (p. 440).

The minimum GPA for any graduate program is 3.0. Individual programs may require more than a 3.0 to remain in good standing.

The minimum grade for a course to be accepted toward any master's or doctoral requirement is C. The minimum grade for a course to be accepted toward a certificate program is B-. Individual programs may require higher grades for specific courses.

## Doctor of Philosophy - Anthropology

The Ph.D. in Anthropology requires 60 credits total beyond the bachelor's degree, completion of the coursework for the UM Anthropology M.A. or an equivalent 30+ credit master's degree from another institution, completion of courses in specific areas of the curriculum, a comprehensive examination consisting of a defense of the student's research proposal, a dissertation on a topic of relevance to Anthropology, and a defense of that dissertation.

The faculty expects completion of the Ph.D. within three years of earning the master's degree. All students entering the Ph.D. program must have the equivalent of an M.A. degree before they can proceed to Ph.D. status. Students accepted into the program with only an undergraduate degree must complete the requirements of an M.A. degree prior to moving into the Ph.D. program. Students initially accepted into the M.A. program may continue into the Ph.D. program, but they must complete the M.A. degree prior to continuing; those students must also apply for the Ph.D. program during the regular application cycle (even though they are extant M.A. students).

### Required Coursework

- Coursework for the Ph.D. in Anthropology requires 30 credits beyond those required for the master's degree, for a total of 60 credits.
- At least 20 of these credits must be in anthropology (ANTY) or linguistics (LING).
- A maximum of 10 credits of research courses may be applied to these 30 credits. Research courses include ANT 590, ANT 599, ANT 690, and ANT 699.
- No more than 9 credits total in any combination of independent study (ANTY 492, ANT 592, LING 492, LING 592) and internship courses (ANTY 598, LING 498, LING 598) may be applied to these 30 credits.
- Reasonable substitutions of courses, including courses from other departments and institutions, may be approved by the student's committee.
- In addition, students must:
  - Successfully complete a comprehensive examination consisting of a defense of the student's research proposal.
  - Successfully complete and defend a dissertation on a topic of relevance to the field of anthropology.

| Code                                                               | Title                                                       | Hours |  |
|--------------------------------------------------------------------|-------------------------------------------------------------|-------|--|
| Core Courses                                                       |                                                             |       |  |
| Complete all of the following courses:                             |                                                             |       |  |
| ANTY 500                                                           | Contemporary Anthropological Thought                        | 3     |  |
| ANTY 601                                                           | Research Design & Proposal Preparation                      | 3     |  |
| Anthropological Theory                                             |                                                             |       |  |
| Complete one of the following courses:                             |                                                             |       |  |
| ANTY 510                                                           | Seminar on Human Variation & Evolution                      | 3     |  |
| ANTY 513                                                           | Seminar in Bioarchaeology & Skeletal Biology                |       |  |
| ANTY 515                                                           | Theory & Methods in Bioanthropology                         |       |  |
| ANTY 520                                                           | Seminar in Contemporary Ethnography                         |       |  |
| ANTY 550                                                           | Seminar in Archaeology                                      |       |  |
| ANTY 551                                                           | Advanced Cultural Resource Management for Graduate Students |       |  |
| ANTY 553                                                           | Evolutionary Archaeology                                    |       |  |
| ANTY 600                                                           | Issues in Cultural Heritage                                 |       |  |
| LING 570                                                           | Seminar in Linguistics                                      |       |  |
| LING 573                                                           | Language and Culture                                        |       |  |
| Methods                                                            |                                                             |       |  |
| Complete one of the following courses:                             |                                                             |       |  |
| ANTY 401                                                           | Anthropological Data Analysis                               | 3     |  |
| ANTY 412                                                           | Osteology                                                   |       |  |
| ANTY 413                                                           | Forensic and Mortuary Archaeology                           |       |  |
| ANTY 431                                                           | Ethnographic Field Methods                                  |       |  |
| ANTY 451                                                           | Cultural Resource Management                                |       |  |
| ANTY 452                                                           | GIS in Archaeology                                          |       |  |
| ANTY 454                                                           | Lithic Technology                                           |       |  |
| ANTY 455                                                           | Artifact Analysis                                           |       |  |
| ANTY 466                                                           | Archaeological Survey                                       |       |  |
| ANTY 467                                                           | Archaeological Field School                                 |       |  |
| ANTY 476                                                           | Methods for Native Languages                                |       |  |
| ANTY 494                                                           | Seminar/Workshop                                            |       |  |
| ANTY 508                                                           | Applied Anthropological Statistics                          |       |  |
| ANTY 512                                                           | Advanced Forensic Anthropology                              |       |  |
| ANTY 602                                                           | Cultural Heritage Policy & Practice                         |       |  |
| LING 571                                                           | Phonetics and Phonology                                     |       |  |
| LING 574                                                           | Historical Linguistics                                      |       |  |
| LING 575                                                           | Linguistic Field Methods                                    |       |  |
| LING 584                                                           | NA Indigenous Language and Linguistics                      |       |  |
| LING 589                                                           | Morphology                                                  |       |  |
| Electives, Research, and Dissertation                              |                                                             |       |  |
| Complete at least 48 credits of the following courses:             |                                                             |       |  |
| Any graduate level course chosen in consultation with your advisor |                                                             | 48    |  |
| ANTY 590                                                           | Research                                                    |       |  |
| ANTY 599                                                           | Thesis/Professional Project                                 |       |  |
| ANTY 690                                                           | Advanced Research                                           |       |  |
| ANTY 699                                                           | Dissertation                                                |       |  |
| Total Hours                                                        |                                                             | 60    |  |

## Anthropology Ph.D. - Cultural Heritage and Applied Anthropology

Students in Ph.D. in Anthropology with a concentration in Cultural Heritage and Applied Anthropology focus not only on cutting-edge research, but also on the application of anthropology to one or more central issues of the 21st century. These include the preservation of heritage and traditions, whether objects, landscapes, or language; international social issues, particularly global development and health delivery; or understanding the biological basis of humankind. This program requires more extensive coursework than the M.A. and, even more importantly, the achievement of independent professional-level scholarship demonstrated by completion of a major research project presented to the faculty as a dissertation. This comprehensive yet individualized program provides seasoned professionals and recent B.A. and M.A. graduates alike an opportunity to earn a doctoral degree.

Cultural heritage studies analyzes 'heritage' as an archaeological, ethnohistorical, social, biological, linguistic, and legal construct. Heritage reflects a socially and personally important set of cultural, linguistic, and biological attributes that have developed through historical processes and have social and legal meanings and consequences. The concept recognizes diverse ethnic and cultural backgrounds while grounded in principles of the unity of heritage for all people. Different notions of heritage are explored from a theoretical perspective using various anthropological and other relevant paradigms. The course of study covers topics such as cultural resource management, social impact assessment, the interaction between cultures, invention of tradition through time, cultural landscapes, cultural property, biological heritage issues, and retention of culture and language. An overlapping concern of the program is applied anthropology, the use of the anthropological perspective to solve real-world problems, including cultural heritage, medical anthropology, and a host of international development issues.

At the heart of this program is a strong commitment to employing anthropological theory to engage contemporary issues with focused research for communities. While some that are awarded a Ph.D. in Anthropology from University of Montana may look toward teaching careers, a goal of the program is to produce applied anthropologists who will serve in government agencies, nongovernmental organizations (NGOs), tribal and ethnic associations, and businesses.

## General Graduate Program Requirements

Graduate School policies and standards can be found on the Graduate School Policies page (p. 440).

The minimum GPA for any graduate program is 3.0. Individual programs may require more than a 3.0 to remain in good standing.

The minimum grade for a course to be accepted toward any master's or doctoral requirement is C. The minimum grade for a course to be accepted toward a certificate program is B-. Individual programs may require higher grades for specific courses.

## Doctor of Philosophy - Anthropology; Cultural Heritage and Applied Anthropology Concentration

The Ph.D. in Anthropology requires 60 credits total beyond the bachelor's degree, completion of the coursework for the UM Anthropology M.A. or an equivalent 30+ credit master's degree from another



institution, completion of courses in specific areas of the curriculum, a comprehensive examination consisting of a defense of the student's research proposal, a dissertation on a topic of relevance to Anthropology, and a defense of that dissertation.

The faculty expects completion of the Ph.D. within three years of earning the master's degree. All students entering the Ph.D. program must have the equivalent of an M.A. degree before they can proceed to Ph.D. status. Students accepted into the program with only an undergraduate degree must complete the requirements of an M.A. degree prior to moving into the Ph.D. program. Students initially accepted into the M.A. program may continue into the Ph.D. program, but they must complete the M.A. degree prior to continuing; those students must also apply for the Ph.D. program during the regular application cycle (even though they are extant M.A. students).

Required Coursework

- Coursework for the Ph.D. in Anthropology requires 30 credits beyond those required for the master's degree, for a total of 60 credits.
- At least 20 of these credits must be in anthropology (ANTY) or linguistics (LING).
- A maximum of 10 credits of research courses may be applied to these 30 credits. Research courses include ANT 590, ANT 599, ANT 690, and ANT 699.
- No more than 9 credits total in any combination of independent study (ANT 492, ANT 592, LING 492, LING 592) and internship courses (ANT 598, LING 498, LING 598) may be applied to these 30 credits.
- Reasonable substitutions of courses, including courses from other departments and institutions, may be approved by the student's committee.
- In addition, students must:
  - Successfully complete a comprehensive examination consisting of a defense of the student's research proposal.
  - Successfully complete and defend a dissertation on a topic of relevance to the field of anthropology.

| Code                                                               | Title                                  | Hours |
|--------------------------------------------------------------------|----------------------------------------|-------|
| Core Courses                                                       |                                        |       |
| Complete all of the following courses:                             |                                        |       |
| ANTY 600                                                           | Issues in Cultural Heritage            | 3     |
| ANTY 601                                                           | Research Design & Proposal Preparation | 3     |
| ANTY 602                                                           | Cultural Heritage Policy & Practice    | 3     |
| Electives, Research, and Dissertation                              |                                        |       |
| Complete at least 51 credits of the following courses:             |                                        | 51    |
| Any graduate level course chosen in consultation with your advisor |                                        |       |
| ANTY 590                                                           | Research                               |       |
| ANTY 599                                                           | Thesis/Professional Project            |       |
| ANTY 690                                                           | Advanced Research                      |       |
| ANTY 699                                                           | Dissertation                           |       |
| Total Hours                                                        |                                        | 60    |

Communication Studies

- Communication Studies M.A. (p. 520)

Communication Studies M.A.  
General Graduate Program Requirements

Graduate School policies and standards can be found on the Graduate School Policies page (p. 440).

The minimum GPA for any graduate program is 3.0. Individual programs may require more than a 3.0 to remain in good standing.

The minimum grade for a course to be accepted toward any master's or doctoral requirement is C. The minimum grade for a course to be accepted toward a certificate program is B-. Individual programs may require higher grades for specific courses.

Master of Arts - Communication Studies

- Students enrolled in the M.A. in Communication Studies program can select one of two options to complete their degree: the thesis option or the professional paper option.
  - A thesis is a scholarly project conducted and written to an academic audience.
  - A professional paper is an applied scholarly project oriented toward a non-academic audience.
  - Both may be theory and/or research based.
- A full 70% or more of the student's required course work (excluding research and thesis credits) must be taken in Communication Studies (COMX). Advisor permission is required to take courses outside of the department that may apply toward the program of study.
- A full 70% or more of the student's required course work (excluding research and thesis credits) must be taken at the 500-600 level.
- Students who did not earn an undergraduate major in Communication Studies may be required to take additional Communication Studies (COMX) coursework (not including thesis or professional paper) to ensure sufficient knowledge of the discipline.
- Students who did not complete a statistics course during their undergraduate career are required to take one during their first year in the program, preferably prior to or concurrently with COMX 460/COMX 461. The credits for any undergraduate statistics course do not count toward the credit requirements for the Master of Arts.
- All graduate students are expected to attend proseminar meetings, usually held Mondays 3:30-4:30 pm. This proseminar meeting is required for students during their first two semesters in the program. The proseminar supports scholarly and professional development through discussion and workshops (e.g., history of the discipline, CV preparation, submitting papers to conferences and journals, thesis and professional paper preparation, and applying for jobs and doctoral programs.)

Course Requirements

| Code                                                                                       | Title                                                                     | Hours |
|--------------------------------------------------------------------------------------------|---------------------------------------------------------------------------|-------|
| Core Courses                                                                               |                                                                           |       |
| Complete two credits of the following course:                                              |                                                                           | 2     |
| COMX 594                                                                                   | Topical Seminar (taken for one credit in each of the first two semesters) |       |
| Complete at least two of the following courses. Students are encouraged to take all three. |                                                                           | 6     |
| COMX 460                                                                                   | Research Methods                                                          |       |
| COMX 561                                                                                   | Qualitative Research Methods                                              |       |



COMX 555 Seminar in Rhetoric, Criticism, &amp; Theory

**Thesis or Professional Paper**

Complete the following:

18 credits of Communication Studies (COMX) electives or other courses chosen in consultation with your advisor. 18

COMX 599 Thesis/Professional Paper 9

**Total Hours** 35

## Economics

- Economics M.A. (p. 521)

## Economics M.A.

### General Graduate Program Requirements

Graduate School policies and standards can be found on the Graduate School Policies page (p. 440).

The minimum GPA for any graduate program is 3.0. Individual programs may require more than a 3.0 to remain in good standing.

The minimum grade for a course to be accepted toward any master's or doctoral requirement is C. The minimum grade for a course to be accepted toward a certificate program is B-. Individual programs may require higher grades for specific courses.

## Master of Arts - Economics

**Note:** Students in the BA/MA accelerated program are required to meet all requirements for the BA and MA programs. Up to 11 undergraduate/graduate credits taken while a student is in undergraduate status at the University of Montana will be applied to the MA program.

### Course Requirements

| Code                                       | Title                                                        | Hours |
|--------------------------------------------|--------------------------------------------------------------|-------|
| <b>Core Courses</b>                        |                                                              |       |
| Complete all of the following courses:     |                                                              |       |
| ECNS 403                                   | Introduction to Econometrics                                 | 4     |
| ECNS 560                                   | Advanced Econometrics                                        | 4     |
| ECNS 511                                   | Microeconomic Theory (Minimum Required Grade: B- )           | 3     |
| ECNS 513                                   | Macroeconomics and Forecasting (Minimum Required Grade: B- ) | 3     |
| ECNS 599                                   | Thesis                                                       | 10    |
| <b>Electives</b>                           |                                                              |       |
| Complete 6 credits of Economics electives. |                                                              | 6     |
| <b>Total Hours</b>                         |                                                              | 30    |

## English

- Creative Writing M.F.A. - Fiction (p. 521)
- Creative Writing M.F.A. - Nonfiction (p. 521)
- Creative Writing M.F.A. - Poetry (p. 522)
- English M.A. - Ecocriticism (p. 522)
- English M.A. - Literature (p. 523)

## Creative Writing M.F.A. - Fiction

### General Graduate Program Requirements

Graduate School policies and standards can be found on the Graduate School Policies page (p. 440).

The minimum GPA for any graduate program is 3.0. Individual programs may require more than a 3.0 to remain in good standing.

The minimum grade for a course to be accepted toward any master's or doctoral requirement is C. The minimum grade for a course to be accepted toward a certificate program is B-. Individual programs may require higher grades for specific courses.

## Master of Fine Arts - Creative Writing; Fiction Concentration

- The MFA program in fiction normally takes two years to complete. Some students who choose to attend part-time take three years.
- Candidates must submit a thesis acceptable to their MFA committee and to the Graduate School. A prose thesis may be a novel or group of short stories with a minimum length of 80 pages.
- Candidates must give a public thesis reading after committee approval.

### Course Requirements

| Code                                                                                                      | Title                             | Hours |
|-----------------------------------------------------------------------------------------------------------|-----------------------------------|-------|
| <b>Workshop - Complete 12 credits of the following course:</b>                                            |                                   | 12    |
| CRWR 510                                                                                                  | Fiction Workshop                  |       |
| <b>Techniques - Complete 3 credits of the following course:</b>                                           |                                   | 3     |
| CRWR 514                                                                                                  | Techniques of Modern Fiction      |       |
| <b>Literature - Complete 6 credits of the following courses:</b>                                          |                                   | 6     |
| Any 400-level LIT course available for graduate credit.<br>Note: only one 400-level LIT course may count. |                                   |       |
| LIT 520                                                                                                   | Seminar in British Literature     |       |
| LIT 521                                                                                                   | Seminar in American Literature    |       |
| LIT 522                                                                                                   | Seminar in Comparative Literature |       |
| LIT 591                                                                                                   | Special Topics                    |       |
| LIT 592                                                                                                   | Independent Study                 |       |
| <b>Electives</b>                                                                                          |                                   | 12    |
| Complete 12 credits of graduate-level courses chosen in consultation with your advisor.                   |                                   |       |
| <b>Thesis - Complete 12 credits of the following course:</b>                                              |                                   | 12    |
| CRWR 599                                                                                                  | Thesis                            |       |
| <b>Total Hours</b>                                                                                        |                                   | 45    |

## Creative Writing M.F.A. - Nonfiction

### General Graduate Program Requirements

Graduate School policies and standards can be found on the Graduate School Policies page (p. 440).

The minimum GPA for any graduate program is 3.0. Individual programs may require more than a 3.0 to remain in good standing.

The minimum grade for a course to be accepted toward any master's or doctoral requirement is C. The minimum grade for a course to be

accepted toward a certificate program is B-. Individual programs may require higher grades for specific courses.

## Master of Fine Arts - Creative Writing; Nonfiction Concentration

- The MFA program in nonfiction normally takes two years to complete. Some students who choose to attend part-time take three years.
- Candidates must submit a thesis acceptable to their MFA committee and to the Graduate School. A prose thesis may be a collection of nonfiction essays with a minimum length of 80 pages.
- Candidates must give a public thesis reading after committee approval.

### Course Requirements

| Code                                                                                    | Title                             | Hours     |
|-----------------------------------------------------------------------------------------|-----------------------------------|-----------|
| <b>Workshop - Complete 12 credits of the following course:</b>                          |                                   | <b>12</b> |
| CRWR 512                                                                                | Nonfiction Workshop               |           |
| <b>Techniques - Complete 3 credits of the following course:</b>                         |                                   | <b>3</b>  |
| CRWR 513                                                                                | Techniques of Nonfiction          |           |
| <b>Literature - Complete 6 credits of the following courses:</b>                        |                                   | <b>6</b>  |
| LIT 520                                                                                 | Seminar in British Literature     |           |
| LIT 521                                                                                 | Seminar in American Literature    |           |
| LIT 522                                                                                 | Seminar in Comparative Literature |           |
| LIT 591                                                                                 | Special Topics                    |           |
| LIT 592                                                                                 | Independent Study                 |           |
| <b>Electives</b>                                                                        |                                   | <b>12</b> |
| Complete 12 credits of graduate-level courses chosen in consultation with your advisor. |                                   |           |
| <b>Thesis - Complete 12 credits of the following course:</b>                            |                                   | <b>12</b> |
| CRWR 599                                                                                | Thesis                            |           |
| <b>Total Hours</b>                                                                      |                                   | <b>45</b> |

## Creative Writing M.F.A. - Poetry

### General Graduate Program Requirements

Graduate School policies and standards can be found on the Graduate School Policies page (p. 440).

The minimum GPA for any graduate program is 3.0. Individual programs may require more than a 3.0 to remain in good standing.

The minimum grade for a course to be accepted toward any master's or doctoral requirement is C. The minimum grade for a course to be accepted toward a certificate program is B-. Individual programs may require higher grades for specific courses.

## Master of Fine Arts - Creative Writing; Poetry Concentration

- The MFA program poetry normally takes two years to complete. Some students who choose to attend part-time take three years.
- Candidates must submit a thesis acceptable to their MFA committee and to the Graduate School. A poetry thesis requires a minimum of 40 pages. With committee and graduate chair permission, an MFA could comprise work in both prose and poetry.

- Candidates must give a public thesis reading after committee approval.

### Course Requirements

| Code                                                                                                      | Title                             | Hours     |
|-----------------------------------------------------------------------------------------------------------|-----------------------------------|-----------|
| <b>Workshop - Complete 12 credits of the following course:</b>                                            |                                   | <b>12</b> |
| CRWR 511                                                                                                  | Poetry Workshop                   |           |
| <b>Techniques - Complete 3 credits of the following course:</b>                                           |                                   | <b>3</b>  |
| CRWR 515                                                                                                  | Traditional Prosody               |           |
| <b>Literature - Complete 6 credits of the following courses:</b>                                          |                                   | <b>6</b>  |
| Any 400-level LIT course available for graduate credit.<br>Note: only one 400-level LIT course may count. |                                   |           |
| LIT 491                                                                                                   | Special Topics                    |           |
| LIT 520                                                                                                   | Seminar in British Literature     |           |
| LIT 521                                                                                                   | Seminar in American Literature    |           |
| LIT 522                                                                                                   | Seminar in Comparative Literature |           |
| LIT 591                                                                                                   | Special Topics                    |           |
| LIT 592                                                                                                   | Independent Study                 |           |
| <b>Electives</b>                                                                                          |                                   | <b>12</b> |
| Complete 12 credits of graduate-level courses chosen in consultation with your advisor.                   |                                   |           |
| <b>Thesis - Complete 12 credits of the following course:</b>                                              |                                   | <b>12</b> |
| CRWR 599                                                                                                  | Thesis                            |           |
| <b>Total Hours</b>                                                                                        |                                   | <b>45</b> |

## English M.A. - Ecocriticism

This concentration is for students interested in how literature shapes our understanding of the environment and vice-versa and is designed to prepare students who intend to pursue Ph.D. work in Literature and the Environment and/or to assist those who wish to incorporate a concern for ecological and social justice issues within their pedagogy.

### General Graduate Program Requirements

Graduate School policies and standards can be found on the Graduate School Policies page (p. 440).

The minimum GPA for any graduate program is 3.0. Individual programs may require more than a 3.0 to remain in good standing.

The minimum grade for a course to be accepted toward any master's or doctoral requirement is C. The minimum grade for a course to be accepted toward a certificate program is B-. Individual programs may require higher grades for specific courses.

## Master of Arts - English; Ecocriticism Concentration

### Course Requirements

| Code                                                            | Title                          | Hours |
|-----------------------------------------------------------------|--------------------------------|-------|
| <b>Seminars</b>                                                 |                                |       |
| Complete the following courses:                                 |                                |       |
| LIT 502                                                         | Special Topics in Ecocriticism | 3     |
| LIT 524                                                         | Nature, Language and Politics  | 3     |
| Complete three additional 500-level literature seminar courses. |                                | 9     |
| <b>Literature</b>                                               |                                |       |

Complete the following course:

|                                                                                                                            |                               |           |
|----------------------------------------------------------------------------------------------------------------------------|-------------------------------|-----------|
| LIT 422                                                                                                                    | Ecocritical Theory & Practice | 3         |
| Complete one additional graduate-level Literature (LIT) course.                                                            |                               | 3         |
| <b>Additional Electives</b>                                                                                                |                               |           |
| Complete at least 9 credits of additional graduate-level courses. Note: only two of these may be Literature (LIT) courses. |                               | 9         |
| <b>Thesis</b>                                                                                                              |                               |           |
| LIT 599                                                                                                                    | Thesis                        | 6         |
| <b>Total Hours</b>                                                                                                         |                               | <b>36</b> |

## English M.A. - Literature

### General Graduate Program Requirements

Graduate School policies and standards can be found on the Graduate School Policies page (p. 440).

The minimum GPA for any graduate program is 3.0. Individual programs may require more than a 3.0 to remain in good standing.

The minimum grade for a course to be accepted toward any master's or doctoral requirement is C. The minimum grade for a course to be accepted toward a certificate program is B-. Individual programs may require higher grades for specific courses.

### Master of Arts - English; Literature Concentration

- The Literature concentration provides an advanced literary education for students thinking of eventually applying to a Ph.D. program elsewhere, for individuals pursuing a career in secondary teaching, and for experienced secondary teachers seeking to develop their expertise in the subject.
- The English department also offers an Ecocriticism concentration that provides a foundation in the study of literature's relationship to environmental issues.
- M.A. students select graduate seminars in American, British, comparative and ethnic literatures, as well as in critical theory, cultural studies, poetics, environmental literature, postcolonial studies, and other areas. After three semesters, typically, of intensive coursework, their work culminates in a research thesis or portfolio project.

### Course Requirements

| Code                                                     | Title  | Hours     |
|----------------------------------------------------------|--------|-----------|
| <b>Seminars</b>                                          |        |           |
| Complete five 500-level seminar courses.                 |        | 15        |
| <b>Literature Electives</b>                              |        |           |
| Complete 2 graduate-level Literature (LIT) courses.      |        | 6         |
| <b>Additional Electives</b>                              |        |           |
| Complete 9 additional credits of graduate-level courses. |        | 9         |
| <b>Thesis</b>                                            |        |           |
| LIT 599                                                  | Thesis | 6         |
| <b>Total Hours</b>                                       |        | <b>36</b> |

## History

- History M.A. (p. 523)
- History Ph.D. (p. 525)
- Public History Graduate Certificate (p. 527)

## History M.A.

### General Graduate Program Requirements

Graduate School policies and standards can be found on the Graduate School Policies page (p. 440).

The minimum GPA for any graduate program is 3.0. Individual programs may require more than a 3.0 to remain in good standing.

The minimum grade for a course to be accepted toward any master's or doctoral requirement is C. The minimum grade for a course to be accepted toward a certificate program is B-. Individual programs may require higher grades for specific courses.

### Master of Arts - History

- Students must maintain a GPA of 3.3 or higher.
- Students are expected to earn a B+ or higher in a graduate research seminar (HSTA 594/HSTR 594) in their first year in the program. Exceptions must be approved by the student's advisor and the Graduate Committee.
- Students are expected to earn a B or higher in a minimum of four (4) 500-level history readings courses before receiving their degree.

### Thesis and Non-Thesis Options

#### Master's Thesis Option

Students may elect to earn their degree by writing a master's thesis. Students choosing this option will:

- Complete thirty (30) hours of coursework. A maximum of six (6) thesis credits may be counted toward the total of thirty (30) credits required for the M.A. These credits may be taken in any semester or semesters during which the student is working on the thesis.
- The thesis must be a monographic study, make an original contribution to scholarship, and be presented in acceptable literary form.

#### Thesis Proposal and Thesis Committee

Students are required to submit a proposal for a thesis project, which must be approved by the student's thesis committee. In consultation with their advisor, students choose members of their thesis committee and gain the consent of each faculty member concerned. Normally, committees are composed of three faculty members: the student's advisor, who serves as the chair of the committee; one other member of the History Department; and one outside faculty member to be selected by the student and advisor. Students should consult with all members of their thesis committee while constructing the thesis proposal.

The student and thesis committee will convene a Thesis Proposal Hearing where faculty members assess the strength of the thesis proposal. Thesis proposals will be assessed on a pass or fail basis. All members of the committee must agree that the student has passed. Students are informed orally, at the end of the proposal hearing, of the committee's evaluation of their thesis proposal.

Students are required to hold their Thesis Proposal Hearing no later than 3 months prior to the intended date of the oral defense of the thesis. To schedule the Thesis Proposal Hearing, students fill out the MA Thesis Proposal Hearing Scheduling Form (<https://www.umn.edu/history/graduate/requirements/proposal-form.php>) and submit a copy to the History Department Office and to the Director of Graduate Studies.

Thesis Defense

The final stage will be an oral defense of the thesis. The student must provide the members of his or her thesis committee with completed copies of the thesis at least two weeks before the defense. Oral examinations are open to the public and guests may ask questions on recognition by the chair. The thesis will be assessed on a pass or fail basis. All members of the committee must agree that the student has passed. Students are informed orally, at the end of the defense, of the committee's evaluation of their thesis.

M.A. candidates must adhere to the schedule determined by the Graduate School, which stipulates that the approved committee draft of the Master's thesis must be submitted to the Graduate Dean at least twenty days before the end of the semester in which all degree requirements will be completed. The draft must be approved by the Graduate Dean before the final oral examination. The University must be in session and students must be enrolled at the time of the defense. No thesis may go to committee nor may any examination thereon take place until all other requirements for the degree have been fulfilled.

To schedule the thesis defense, students fill out the MA Thesis Defense Scheduling Form (<https://www.umn.edu/history/graduate/requirements/defense-scheduling-form.php>) and submit a copy to the History Department office and the Director of Graduate Studies.

Non-thesis/Professional Paper Option

Alternatively, students may elect to earn their degree without writing a master's thesis. Students choosing this option will:

- Complete thirty-six (36) hours of coursework. A maximum of three (3) professional paper credits (HSTA 599 or HSTR 599) may count toward the 36 credits.
- Prepare one professional paper of publishable quality. A professional paper is an article-length historical study of approximately 30-35 double-spaced pages based substantially on primary sources that makes an original scholarly contribution.
- The student, in consultation with their advisor, will put together a three-member professional paper committee comprised of the student's advisor, one other History Department faculty member, and one faculty member from outside the department.
- In the student's final semester, with approval of their advisor, they will schedule an oral defense and will provide all committee members a copy of the professional paper a minimum of two weeks prior.
- After the oral defense, the advisor will inform the student of the outcome, which may be (a) full pass, acceptance of the paper as is with only minor recommended changes, (b) conditional pass, recommended changes that must be completed within 30 days and approved by the advisor, or (c) not passed.

Non-Thesis/Professional Paper & Public History Portfolio Option

As a third option, students who complete the Graduate Certificate in Public History may elect to earn their degree without completing a thesis

by preparing both a professional paper and a public history portfolio. Students choosing this option will:

- Complete thirty (30) hours of coursework. A maximum of three (3) professional paper credits (HSTA 599 or HSTR 599) may count toward the 30 credits.
- Complete a professional paper of publishable quality conforming to the existing expectations for that paper as described in the professional paper option.
- Submit a portfolio of public history projects. The public history portfolio operates in lieu of the additional six credits required of the existing non-thesis/professional paper.
  - The public history portfolio must include a minimum of three projects completed by or with substantive input from the student during their time in the program.
  - The portfolio should be submitted to the student's advisor in electronic form as a single PDF file and should include a description of each project, identification of its intended audience, images of the projects, a 3-5 page reflection per project on what was learned from completing the public history project, and a list of collaborators.
  - The student's portfolio will be reviewed by the student's advisor and a representative of the department's Public History Committee before final acceptance and approval of degree completion.
- In addition, the student must earn the department's Graduate Certificate in Public History before completing or concurrent with the completion of their M.A. degree.

Course Requirements

- With approval from the student's Graduate Committee, students may apply up to six (6) credits in cognate fields towards the M.A in History.
- Graduate school rules require that a minimum of one-half of all coursework be done at the 500-level.
- Language Requirement - MA students, especially those working on topics outside of U.S. or British history, may need to work with sources in languages other than English. In such cases, the advisor, with approval of the Graduate Program Committee, may require the student to demonstrate suitable reading proficiency in any research language(s) necessary for the completion of the degree.

| Code                                                                                                                                                                                              | Title                               | Hours |
|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-------------------------------------|-------|
| Research Seminar                                                                                                                                                                                  |                                     |       |
| Complete one of the following courses:                                                                                                                                                            |                                     | 3     |
| HSTA 594                                                                                                                                                                                          | Research Seminar                    |       |
| HSTR 594                                                                                                                                                                                          | Research Seminar                    |       |
| Reading Courses                                                                                                                                                                                   |                                     |       |
| Complete 12 credits of the following courses. Two of readings courses must be in the student's major field: United States, Europe, or the World. At least one must be in one of other two areas.. |                                     | 12    |
| United States History                                                                                                                                                                             |                                     |       |
| HSTA 501                                                                                                                                                                                          | Readings in Early American History  |       |
| HSTA 502                                                                                                                                                                                          | Readings in Modern American History |       |
| HSTA 553                                                                                                                                                                                          | Modern America                      |       |
| HSTA 566                                                                                                                                                                                          | The American West                   |       |
| HSTA 570                                                                                                                                                                                          | U.S. Women's History                |       |

|                                                                 |                                                                 |
|-----------------------------------------------------------------|-----------------------------------------------------------------|
| HSTA 577                                                        | Law, Capitalism, and Democracy in U.S. History                  |
| HSTA 591                                                        | Special Topics (must be approved as a U.S. readings course)     |
| <b>European History</b>                                         |                                                                 |
| HSTR 501                                                        | Readings in Early Modern History                                |
| HSTR 502                                                        | Readings in Modern European History                             |
| HSTR 591                                                        | Special Topics (must be approved as a European readings course) |
| <b>World History</b>                                            |                                                                 |
| HSTR 585                                                        | Latin America                                                   |
| HSTR 591                                                        | Special Topics (must be approved as a world readings course)    |
| <b>Electives and Options</b>                                    |                                                                 |
| Complete one of the following options: 15-21                    |                                                                 |
| <b>Thesis Option</b>                                            |                                                                 |
| Complete 15 credits of the following courses:                   |                                                                 |
| Graduate-level History (HSTA or HSTR) courses                   |                                                                 |
| HSTA 699                                                        | Dissertation (maximum: 6 credits)                               |
| or HSTR 699 Dissertation                                        |                                                                 |
| <b>Professional Paper Option</b>                                |                                                                 |
| Complete 21 credits of the following courses:                   |                                                                 |
| Graduate-level History (HSTA or HSTR) courses                   |                                                                 |
| HSTA 599                                                        | Thesis/Professional Paper (maximum: 3 credits)                  |
| or HSTR 599 Thesis/Professional Paper                           |                                                                 |
| <b>Professional Paper &amp; Public History Portfolio Option</b> |                                                                 |
| Complete 15 credits of the following courses:                   |                                                                 |
| Graduate-level History (HSTA or HSTR) courses                   |                                                                 |
| Complete the Graduate Certificate in Public History.            |                                                                 |
| HSTA 599                                                        | Thesis/Professional Paper (maximum: 3 credits)                  |
| or HSTR 599 Thesis/Professional Paper                           |                                                                 |
| <b>Total Hours</b>                                              | <b>30-36</b>                                                    |

## History Ph.D.

### General Graduate Program Requirements

Graduate School policies and standards can be found on the Graduate School Policies page (p. 440).

The minimum GPA for any graduate program is 3.0. Individual programs may require more than a 3.0 to remain in good standing.

The minimum grade for a course to be accepted toward any master's or doctoral requirement is C. The minimum grade for a course to be accepted toward a certificate program is B-. Individual programs may require higher grades for specific courses.

### Doctor of Philosophy - History

- To fulfill the requirements for the Doctor of Philosophy in History, students must:
  - Complete all required coursework with a GPA of 3.5 or higher in order to qualify to take comprehensive exams.
  - Earn a B+ or higher in a graduate research seminar (HSTA 594/HSTR 594) in their first year in the program.

Exceptions must be approved by the student's advisor and the Graduate Committee.

- Earn a B or higher in a minimum of four 500-level history.
- Complete sixty (60) graduate-level credits beyond the baccalaureate degree.
  - Of these, 45 credits must be from graduate courses taken while enrolled in the program and/or up to 30 transfer credits accepted by the Graduate School.
  - Students may count a maximum of 15 credits internships, independent study, and dissertation toward the degree.
  - Students entering without transfer graduate credits may count toward their degree up to nine (9) credits of graduate coursework taken outside the History Department while they are enrolled in the program. See below for allowed non-History credits for students transferring graduate credits.
- Language Requirement - Students must demonstrate competence in additional languages.
  - Students in U.S. History will be required to demonstrate competence in one additional language.
  - Students in other areas will be required to demonstrate competence in two additional languages.
  - Passage of a language course at the 102-level at UM or the equivalent course elsewhere will demonstrate competence.
  - Students may also satisfy the requirement by taking the ETS exam and scoring above the 45th percentile.
  - These requirements are a minimum. At their discretion, advisors may require a higher degree of competence or additional languages.
- Applicants with a previously earned M.A. in History from another institution will be informed at the time of their admission how many transfer credits the department will recommend to the Dean of the Graduate School. If that number is less than 30, after their first semester in the program, the student may petition the Graduate Committee to recommend acceptance of additional transfer credits. Thesis credits are not transferable. See Graduate School Policy D2.100 (p. 440) for additional restrictions.
- With the approval of their advisors:
  - Students with up to 15 accepted transfer credits may count up to six (6) credits of graduate coursework outside the History Department.
  - Students with 15 or more accepted transfer credits may count up to three (3) credits of graduate coursework outside the History Department.
- Students who enter with an M.A. in History do not need to complete an additional thesis or non-thesis degree option.
- Students who enter with only a B.A. must complete a thesis or non-thesis option to receive their M.A. This requirement may be fulfilled by submission of a portfolio consisting of two research papers written while enrolled in UM's history graduate program. These papers must be approved by a committee of three faculty members. Additional information about the M.A. thesis can be found on the History M.A. page (p. 523).
- Students must complete comprehensive exams consisting of written and oral exams in three fields.
- Students must complete and defend a dissertation.



## Required Coursework

| Code                                                                                                                                                                                              | Title                                                           | Hours     |
|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-----------------------------------------------------------------|-----------|
| <b>Research Seminar</b>                                                                                                                                                                           |                                                                 |           |
| Complete one of the following courses:                                                                                                                                                            |                                                                 | 3         |
| HSTA 594                                                                                                                                                                                          | Research Seminar                                                |           |
| HSTR 594                                                                                                                                                                                          | Research Seminar                                                |           |
| <b>Reading Courses</b>                                                                                                                                                                            |                                                                 |           |
| Complete 12 credits of the following courses. Two of readings courses must be in the student's major field: United States, Europe, or the World. At least one must be in one of other two areas.. |                                                                 | 12        |
| <b>United States History</b>                                                                                                                                                                      |                                                                 |           |
| HSTA 501                                                                                                                                                                                          | Readings in Early American History                              |           |
| HSTA 502                                                                                                                                                                                          | Readings in Modern American History                             |           |
| HSTA 553                                                                                                                                                                                          | Modern America                                                  |           |
| HSTA 566                                                                                                                                                                                          | The American West                                               |           |
| HSTA 570                                                                                                                                                                                          | U.S. Women's History                                            |           |
| HSTA 577                                                                                                                                                                                          | Law, Capitalism, and Democracy in U.S. History                  |           |
| HSTA 591                                                                                                                                                                                          | Special Topics                                                  |           |
| <b>European History</b>                                                                                                                                                                           |                                                                 |           |
| HSTR 501                                                                                                                                                                                          | Readings in Early Modern History                                |           |
| HSTR 502                                                                                                                                                                                          | Readings in Modern European History                             |           |
| HSTR 591                                                                                                                                                                                          | Special Topics (must be approved as a European readings course) |           |
| <b>World History</b>                                                                                                                                                                              |                                                                 |           |
| HSTR 585                                                                                                                                                                                          | Latin America                                                   |           |
| HSTR 591                                                                                                                                                                                          | Special Topics (must be approved as a world readings course)    |           |
| <b>Electives, Research, and Dissertation</b>                                                                                                                                                      |                                                                 |           |
| Complete 45 credits of the following courses:                                                                                                                                                     |                                                                 | 45        |
| Any 400- or 500-level graduate history course.                                                                                                                                                    |                                                                 |           |
| A maximum of 15 of these credits may be from the following courses:                                                                                                                               |                                                                 |           |
| HSTR 592                                                                                                                                                                                          | Independent Study                                               |           |
| HSTA 598                                                                                                                                                                                          | Internship                                                      |           |
|                                                                                                                                                                                                   | or HSTR 598 Internship                                          |           |
| HSTA 599                                                                                                                                                                                          | Thesis/Professional Paper                                       |           |
|                                                                                                                                                                                                   | or HSTR 599 Thesis/Professional Paper                           |           |
| HSTA 699                                                                                                                                                                                          | Dissertation                                                    |           |
|                                                                                                                                                                                                   | or HSTR 699 Dissertation                                        |           |
| <b>Total Hours</b>                                                                                                                                                                                |                                                                 | <b>60</b> |

## Comprehensive Exams

Comprehensive exams consist of written and oral exams in three fields. Students will consult with their advisors to determine what three fields will best serve their research needs and teaching goals. The exams are intended to test students' knowledge of each field and evaluate their abilities of historical interpretation and synthesis. Students are expected to master the literature in their fields and be aware of important historiographical trends.

- The examining professor will determine the specific requirements for each field, but the department recommends reading lists of approximately 100 books and articles.

- In order to qualify to take the comprehensive exams, students must complete all required coursework with a minimum 3.5-grade point average and meet the language requirement.
- Students entering the Ph.D. program with an M.A. degree typically take comprehensive exams in their second year of study. Students entering with only a B.A. degree typically take the exams in their third year of study.
- Students first take separate written exams in each of the three fields. The examining professor will determine the requirements for the written exam but recommended forms of assessment include a time-restricted essay exam, historiographical essay(s), and/or course syllabus. The oral exams are given the week following the written exams and are administered all together by the same professors who administered the written exams.
- In consultation with their advisors, students are encouraged, during their first and second years of study, to seek out faculty willing to serve as their examiners. No two fields may be taken with the same examiner. Normally, the student's advisor serves as the chair of the examining committee.
- Students receive a grade of pass or fail on the comprehensive exams. All professors on the committee must agree that the student has passed. Students are informed orally, at the end of the oral examination of the examining committee's evaluation of their performance. Students who fail to pass their exams may take them a second time. Failure on the second attempt will mean termination from the program. If the examining committee agrees that the student's performance on the oral and written exams is outstanding and meritorious, the committee may award a "distinguished pass."

## Dissertation Proposal and Dissertation Committee

- Students are required to submit a proposal for a dissertation project, which must be approved by the student's dissertation committee. In consultation with their advisors, students choose members of their dissertation committee and gain the consent of each faculty member concerned. Normally, committees are composed of five faculty members, and the student's advisor serves as the chair of the committee. At least three members of the committee must be members of the History Department. One member of the committee must come from outside the History Department. Students should consult with all members of their dissertation committee while constructing the dissertation proposal.
- The student and the dissertation committee will convene a Dissertation Proposal Hearing where faculty members assess the strength of the dissertation proposal. Dissertation proposals will be assessed on a pass or fail basis. All members of the committee must agree that the student has passed. Students are informed orally, at the end of the proposal hearing, of the dissertation committee's evaluation of their dissertation proposal.
- Students are required to hold their Dissertation Proposal Hearing no later than 1 year prior to the intended date of the oral defense of the dissertation. To schedule your Dissertation Proposal Hearing, please fill out the PhD Dissertation Proposal Hearing Scheduling Form and submit a copy to the History Department Office and to the Director of Graduate Studies.

## Doctoral Dissertation

- Students are required to write a doctoral dissertation that is an original contribution to scholarship. It must be presented in acceptable literary form. It must be of a quality that all or a substantial part of it would merit eventual publication.

- The final stage will be an oral defense of the dissertation. The student must provide the members of his or her dissertation committee with completed copies of the dissertation three weeks before the defense. Oral examinations are open to the public and guests may ask questions on recognition by the chair. Dissertations will be assessed on a pass or fail basis. All members of the committee must agree that the student has passed. Students are informed orally, at the end of the defense, of the dissertation committee's evaluation of their dissertation.
- To schedule the dissertation defense, students fill out the MA Thesis/ PhD Dissertation Defense Scheduling Form and submit a copy to the History Department Office and to the Director of Graduate Studies.

## Public History Graduate Certificate

### General Graduate Program Requirements

Graduate School policies and standards can be found on the Graduate School Policies page (p. 440).

The minimum GPA for any graduate program is 3.0. Individual programs may require more than a 3.0 to remain in good standing.

The minimum grade for a course to be accepted toward any master's or doctoral requirement is C. The minimum grade for a course to be accepted toward a certificate program is B-. Individual programs may require higher grades for specific courses.

### Graduate Certificate - Public History

#### Course Requirements

| Code                                                                                                                                                             | Title                                          | Hours     |
|------------------------------------------------------------------------------------------------------------------------------------------------------------------|------------------------------------------------|-----------|
| Complete one of the following courses:                                                                                                                           |                                                | 3         |
| HSTA 575                                                                                                                                                         | Public History                                 |           |
| HSTA 591                                                                                                                                                         | Special Topics                                 |           |
| Complete one of the following courses:                                                                                                                           |                                                | 3         |
| HSTA 598                                                                                                                                                         | Internship                                     |           |
| HSTR 598                                                                                                                                                         | Internship                                     |           |
| HSTR 592                                                                                                                                                         | Independent Study                              |           |
| Complete one of the following courses:                                                                                                                           |                                                | 3         |
| HSTA 501                                                                                                                                                         | Readings in Early American History             |           |
| HSTA 502                                                                                                                                                         | Readings in Modern American History            |           |
| HSTA 553                                                                                                                                                         | Modern America                                 |           |
| HSTA 566                                                                                                                                                         | The American West                              |           |
| HSTA 570                                                                                                                                                         | U.S. Women's History                           |           |
| HSTA 577                                                                                                                                                         | Law, Capitalism, and Democracy in U.S. History |           |
| HSTR 501                                                                                                                                                         | Readings in Early Modern History               |           |
| HSTR 502                                                                                                                                                         | Readings in Modern European History            |           |
| HSTR 585                                                                                                                                                         | Latin America                                  |           |
| 3 credits of additional coursework, including seminar (594) or special offerings (595) in public history, approved by the Director of the Public History Program |                                                | 3         |
| <b>Total Hours</b>                                                                                                                                               |                                                | <b>12</b> |

## Linguistics

- Linguistics M.A. (p. 527)

## Linguistics M.A.

### General Graduate Program Requirements

Graduate School policies and standards can be found on the Graduate School Policies page (p. 440).

The minimum GPA for any graduate program is 3.0. Individual programs may require more than a 3.0 to remain in good standing.

The minimum grade for a course to be accepted toward any master's or doctoral requirement is C. The minimum grade for a course to be accepted toward a certificate program is B-. Individual programs may require higher grades for specific courses.

### Master of Arts - Linguistics

- Students seeking a Master of Arts in Linguistics at the University of Montana complete a 36-credit-hour program of study.
- Thesis and comprehensive exam options are available.
  - Any student may elect to pursue the comprehensive exam option.
- Students wishing to pursue the thesis option must submit a thesis proposal draft in their second semester and a final thesis proposal before the start of the following fall semester. Students whose proposals are approved may then elect to pursue the thesis option.

#### Required Coursework

| Code                                                                               | Title                                  | Hours     |
|------------------------------------------------------------------------------------|----------------------------------------|-----------|
| <b>Complete all of the following courses:</b>                                      |                                        |           |
| LING 571                                                                           | Phonetics and Phonology                | 3         |
| LING 572                                                                           | Syntax                                 | 3         |
| or LING 589                                                                        | Morphology                             |           |
| <b>Complete two of the following courses:</b>                                      |                                        | <b>6</b>  |
| LING 573                                                                           | Language and Culture                   |           |
| LING 574                                                                           | Historical Linguistics                 |           |
| LING 575                                                                           | Linguistic Field Methods               |           |
| LING 584                                                                           | NA Indigenous Language and Linguistics |           |
| <b>Thesis or Comprehensive Exam Options</b>                                        |                                        |           |
| Complete one of the following options:                                             |                                        | 24        |
| <b>Thesis Option</b>                                                               |                                        |           |
| Complete two semesters of one of the following courses (6 credits):                |                                        |           |
| LING 494                                                                           | Seminar                                |           |
| LING 570                                                                           | Seminar in Linguistics                 |           |
| Complete 4 elective courses chosen in consultation with your advisor (12 credits). |                                        |           |
| LING 599                                                                           | Thesis                                 |           |
| <b>Comprehensive Exam Option</b>                                                   |                                        |           |
| Complete three semesters of one of the following courses (9 credits):              |                                        |           |
| LING 494                                                                           | Seminar                                |           |
| LING 570                                                                           | Seminar in Linguistics                 |           |
| Complete 5 elective courses chosen in consultation with your advisor (15 credits). |                                        |           |
| Complete a comprehensive exam                                                      |                                        |           |
| <b>Total Hours</b>                                                                 |                                        | <b>36</b> |

# Philosophy

- Environmental Ethics Graduate Certificate (p. 528)
- Environmental Philosophy M.A. (p. 528)

## Environmental Ethics Graduate Certificate

### General Graduate Program Requirements

Graduate School policies and standards can be found on the Graduate School Policies page (p. 440).

The minimum GPA for any graduate program is 3.0. Individual programs may require more than a 3.0 to remain in good standing.

The minimum grade for a course to be accepted toward any master’s or doctoral requirement is C. The minimum grade for a course to be accepted toward a certificate program is B-. Individual programs may require higher grades for specific courses.

## Graduate Certificate - Environmental Ethics

### Course Requirements

| Code                                     | Title                                             | Hours |
|------------------------------------------|---------------------------------------------------|-------|
| <b>Core Courses</b>                      |                                                   |       |
| Complete three of the following courses: |                                                   | 9     |
| PHL 522                                  | Environmental Philosophy                          |       |
| PHL 502                                  | Topics in Value Theory                            |       |
| PHL 515                                  | Issues in the Anthropocene                        |       |
| PHL 523                                  | Science and the Environment                       |       |
| PHL 524                                  | Environmental Aesthetics                          |       |
| PHL 548                                  | Philosophy and Animals                            |       |
| PHL 572                                  | Thoreau                                           |       |
| <b>Elective Courses</b>                  |                                                   |       |
| Complete two of the following courses:   |                                                   | 6     |
| ENST 505                                 | Earth Storytelling: Nature, Climate, Resistance   |       |
| ENST 510                                 | Environmental Issues of Indigenous Peoples        |       |
| ENST 530                                 | The Greening of Religion                          |       |
| ENST 542                                 | Conservation Without Borders                      |       |
| ENST 580                                 | The Politics of Food                              |       |
| ENST 570                                 | Ethics & Restoration                              |       |
| LIT 502                                  | Special Topics in Ecocriticism                    |       |
| LIT 524                                  | Nature, Language and Politics                     |       |
| LAW 539                                  | International Environmental Law                   |       |
| LAW 605                                  | Animal Law                                        |       |
| LAW 650                                  | Introduction to Environmental Law                 |       |
| LAW 663                                  | Water Law                                         |       |
| NRSM 513                                 | Natural Resource Conflict Resolution              |       |
| NRSM 515                                 | Collaborative Skills for Natural Resource Leaders |       |
| NRSM 526                                 | Climate and Society                               |       |
| NRSM 560                                 | American Wilderness Philosophy & Policy           |       |

|                    |                                                           |           |
|--------------------|-----------------------------------------------------------|-----------|
| NRSM 570           | Political Ecology                                         |           |
| NRSM 575           | Environment & International Development                   |           |
| PTRM 574           | Perspectives in Human Dimensions                          |           |
| PUAD 561           | Ethics in Public Administration                           |           |
| PUAD 591           | Special Topics (Introduction to Public Policy Making)     |           |
| PUAD 591           | Special Topics (Renewable Energy and Climate)             |           |
| PUAD 591           | Special Topics (Women, Policy, and Public Administration) |           |
| PUAD 591           | Special Topics (Environmental Governance and Policy)      |           |
| WILD 591           | Special Topics (Wildlife Policy)                          |           |
| <b>Total Hours</b> |                                                           | <b>15</b> |

## Environmental Philosophy M.A.

Our environmental philosophy M.A. is the most applied philosophy graduate degree in the nation. It takes advantage of the department’s scholarly expertise in wilderness issues, animal studies, philosophy of ecology/conservation, synthetic biology, gender and environment, aesthetics, climate ethics, moral theory, and the Anthropocene. It also involves field trips to Yellowstone National Park (<https://www.nps.gov/yell/>) and the tribally operated Bison Range (<https://bisonrange.org/>), an internship with an environmental organization, and a capstone project in an engaged philosophy topic of your choice. We want students to leave here with skills, both philosophical and practical.

### General Graduate Program Requirements

Graduate School policies and standards can be found on the Graduate School Policies page (p. 440).

The minimum GPA for any graduate program is 3.0. Individual programs may require more than a 3.0 to remain in good standing.

The minimum grade for a course to be accepted toward any master’s or doctoral requirement is C. The minimum grade for a course to be accepted toward a certificate program is B-. Individual programs may require higher grades for specific courses.

## Master of Arts - Environmental Philosophy

The Philosophy Department offers an option to pursue an accelerated M.A. in Environmental Philosophy for select students. Such students can be admitted into graduate-level coursework during their senior undergraduate year or when they have completed a minimum of 105 credits and demonstrated their ability to pursue graduate work. Students enrolled in the accelerated M.A. may count up to 9 credits earned in 400-level or 500-level courses toward the M.A plus 2 credits of PHL 510 – Philosophy Colloquium, for a total of 11 credits.. All credits transferred are subject to the policy on transfer credits (C5.000), with particular attention to the importance of students completing the “graduate increment” in 400-level courses designated UG, taken to fulfill a requirement for a Master’s degree.

### Course Requirements

**Note:** The sequence of seminars may occasionally get disrupted by sabbaticals or other changes in faculty schedules. As the core of our

degree, students will always need whichever 5 philosophy seminars are offered in their two years in the program.

| Code                                                                                                                                                                                                                                                         | Title                                         | Hours     |
|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-----------------------------------------------|-----------|
| <b>Philosophy Core Seminars</b>                                                                                                                                                                                                                              |                                               |           |
| Complete 6 of the following core seminars:                                                                                                                                                                                                                   |                                               | 18        |
| PHL 502                                                                                                                                                                                                                                                      | Topics in Value Theory                        |           |
| PHL 515                                                                                                                                                                                                                                                      | Issues in the Anthropocene                    |           |
| PHL 522                                                                                                                                                                                                                                                      | Environmental Philosophy                      |           |
| PHL 523                                                                                                                                                                                                                                                      | Science and the Environment                   |           |
| PHL 524                                                                                                                                                                                                                                                      | Environmental Aesthetics                      |           |
| PHL 548                                                                                                                                                                                                                                                      | Philosophy and Animals                        |           |
| PHL 572                                                                                                                                                                                                                                                      | Thoreau                                       |           |
| <b>Elective Credits</b>                                                                                                                                                                                                                                      |                                               | 9         |
| Complete 3 graduate-level elective courses. These courses may be philosophy courses or any of the wide range of environmental courses offered outside the Philosophy Department. Courses outside of the department must be approved by the graduate advisor. |                                               |           |
| <b>Experiential Learning</b>                                                                                                                                                                                                                                 |                                               |           |
| Complete the following courses:                                                                                                                                                                                                                              |                                               |           |
| PHL 590                                                                                                                                                                                                                                                      | Research (Civic Engagement Project )          | 3         |
| PHL 598                                                                                                                                                                                                                                                      | Internship                                    | 3         |
| <b>Career Development</b>                                                                                                                                                                                                                                    |                                               |           |
| PHL 510                                                                                                                                                                                                                                                      | Philosophy Colloquium (taken for 4 semesters) | 4         |
| <b>Total Hours</b>                                                                                                                                                                                                                                           |                                               | <b>37</b> |

## Political Science

- Political Science M.A. (p. 529)

## Political Science M.A.

The Master of Arts in Political Science program provides students a rich learning environment in which to explore their interests and develop their skills and knowledge and offers students a high degree of flexibility in their graduate studies to enable them to pursue their goals for learning, research, and career preparation.

The M.A. program develops students' knowledge of political science, policy and politics, as well as critical thinking, communications, and research skills. Our students gain excellent preparation for a wide range of careers in the research-based "knowledge economy" and for applying to highly selective graduate and law schools. Our MA graduates develop the tools to be effective in government and public service, nonprofits and community organizations, media and journalism, and research and teaching.

## General Graduate Program Requirements

Graduate School policies and standards can be found on the Graduate School Policies page (p. 440).

The minimum GPA for any graduate program is 3.0. Individual programs may require more than a 3.0 to remain in good standing.

The minimum grade for a course to be accepted toward any master's or doctoral requirement is C. The minimum grade for a course to be

accepted toward a certificate program is B-. Individual programs may require higher grades for specific courses.

## Master of Arts - Political Science

University of Montana Political Science undergraduate majors can earn up to 12 credits toward their BA degree and MA degree requirements during their senior undergraduate year by applying to the Accelerated MA Program and completing approved graduate-level coursework. For more information about the Accelerated MA Program, program requirements, and how to apply, see the Political Science department webpage (<https://www.umt.edu/political-science/default.php>), and contact the department's MA program advisor.

Students can choose from two paths to the degree: a Thesis Option and a Non-Thesis Option.

### Thesis Option

- In addition to the 18 core credits, students must complete 12 credits of electives with the following limitations:
  - Up to six credits may be taken outside the Political Science department.
  - Six credits maximum can be in Internships (PSCI 598).
  - Six credits maximum can be in Independent Study (PSCI 592).
  - Six credits maximum can be in thesis development (PSCI 599, one credit per semester)
- Students must form a thesis committee of 3 or more faculty members. The thesis committee chair and one other committee member must be from the Political Science department and one faculty member from another department related to the thesis.
- In consultation with the committee chair, students formulate a plan for the thesis and complete the thesis in consultation with the committee.
- Students must complete two oral exams: a thesis prospectus oral exam and a thesis defense. The thesis must be completed and delivered to the Graduate School before the oral exam.

### Non-Thesis Option

- In addition to the 18 core credits, students must complete 18 credits of electives with the following limitations:
  - Up to 12 credits may be taken outside the Political Science department.
  - Six credits maximum can be in Internships (PSCI 598).
  - Six credits maximum can be in Independent Study (PSCI 592).
- The non-thesis option requires 3 professional-quality research papers. At least two Political Science faculty will serve as paper advisors. Paper topics must be in at least 2 subfields of political science, and papers must be at least 25 pages in length with references.

### Course Requirements

- All students must complete a comprehensive exam with both written and oral components set by three faculty in two or more of the core subfields of Political Science. The student may retake the exam once if a non-passing grade is received the first time.
- 50% of all credits must be 500-level or above; 400-level courses may be used for credit if the course's graduate increment is successfully completed.
- PSCI 580 can count for one of the core subfields with the consent of the instructor

| Code                                                                                                                  | Title                                     | Hours        |
|-----------------------------------------------------------------------------------------------------------------------|-------------------------------------------|--------------|
| <b>Core Courses</b>                                                                                                   |                                           |              |
| Complete six of the following courses. At least one each must be taken in the four major subfields:                   |                                           | 18           |
| American Politics:                                                                                                    |                                           |              |
| PSCI 540                                                                                                              | American Government                       |              |
| PSCI 591                                                                                                              | Special Topics (Political Psychology)     |              |
| Comparative Politics:                                                                                                 |                                           |              |
| PSCI 520                                                                                                              | Comparative Government                    |              |
| PSCI 521                                                                                                              | Globalization                             |              |
| PSCI 582                                                                                                              | Politics of the World Economy             |              |
| International Relations:                                                                                              |                                           |              |
| PSCI 530                                                                                                              | International Relations                   |              |
| PSCI 521                                                                                                              | Globalization                             |              |
| PSCI 582                                                                                                              | Politics of the World Economy             |              |
| Political Theory:                                                                                                     |                                           |              |
| PSCI 553                                                                                                              | Modern Political Theory                   |              |
| PSCI 557                                                                                                              | Political Science Theory Graduate Seminar |              |
| <b>Thesis or Non-Thesis Option</b>                                                                                    |                                           | <b>12-18</b> |
| Non-Thesis Option:                                                                                                    |                                           |              |
| Complete 18 additional credits, which may include credits taken in 400-level courses if graduate increment completed. |                                           |              |
| Thesis Option:                                                                                                        |                                           |              |
| Complete 12 additional credits, which may include credits taken in 400-level courses if graduate increment completed. |                                           |              |
| <b>Total Hours</b>                                                                                                    |                                           | <b>30-36</b> |

## Psychology

### Programs

- Psychology Ph.D. - Clinical Psychology (p. 530)
- Psychology Ph.D. - Experimental Psychology (p. 531)
- Psychology Ph.D. - School Psychology (p. 532)
- School Psychology S.S.P. (p. 533)

## Psychology Ph.D. - Clinical Psychology

### General Graduate Program Requirements

Graduate School policies and standards can be found on the Graduate School Policies page (p. 440).

The minimum GPA for any graduate program is 3.0. Individual programs may require more than a 3.0 to remain in good standing.

The minimum grade for a course to be accepted toward any master's or doctoral requirement is C. The minimum grade for a course to be accepted toward a certificate program is B-. Individual programs may require higher grades for specific courses.

## Doctor of Philosophy - Psychology; Clinical Psychology Concentration

- This program requires a minimum grade of B-.
- A Master of Arts degree is conferred on route to the terminal doctoral degree based on credits and completion of the MA Thesis Project.
- In the first year, and in addition to Psychopathology, Statistics, and Ethics, students take a course in Clinical Interviewing as well as a two-course sequence of Psych Eval I & Psych Eval II, where they learn intelligence testing, the use of objective tests, and begin report-writing
- In the second year, and in conjunction the study of clinical interventions, students begin direct clinical therapeutic contact & practice at the Clinical Psychology Center (<http://hs.UMT.edu/cpc/>)
- Each semester, on a rotating basis, faculty offer Interventions or Special Topics courses in their specific treatment specialty, research area or methodology. Topics include: Multicultural Psychology, Family Psychology, DBT, Substance Misuse, Integrated Behavioral Health, Motivational Interviewing, and LGBTQ Issues.

### Clinical Training

Training for our students includes both classroom instruction and direct clinical experience. Our students work with people of diverse backgrounds, lifestyles, and experiences and are trained to adapt to a rapidly changing service-delivery environment in mental health and human service arenas.

Much of our students' clinical training is done at the Clinical Psychology Center (CPC) (<http://hs.UMT.edu/cpc/>) on the UM campus. In the second year of training, clinical PhD students enter practicum and begin seeing clients.

- The CPC is a training clinic, offering assessment, consultation, intervention, and psychotherapy services to the general Missoula community; clients receive services on a sliding fee scale
- Staffed by Clinical and School doctoral students, the CPC is the primary training site for both programs
- Clinicians are supervised by Department of Psychology clinical and school faculty members & licensed community psychologists
- Students take practica from a variety of supervisors and are exposed to a range of theoretical and applied points of view
- Some schools of thought represented in the techniques and approaches are: Cognitive-Behavioral, Psychodynamic, Emotion-Focused, Interpersonal Therapy, Functional Analytic
- Our student clinicians carry fairly small caseloads (typically 3 – 5 clients) in order to provide optimal care and have close supervision
- As they progress, student clinicians assume increasing responsibility for the care of their clients; they are encouraged in their development of case conceptualizations and treatment plans
- The CPC has therapy rooms for individual, group, family, child therapy, as well as assessment

### Course Requirements

| Code                                          | Title                                    | Hours |
|-----------------------------------------------|------------------------------------------|-------|
| <b>Complete all of the following courses:</b> |                                          |       |
| PSYX 500                                      | Advanced History & Systems in Psychology | 3     |
| PSYX 501                                      | Teaching of Psychology                   | 3     |
| PSYX 511                                      | Professional Issues                      | 1     |
| PSYX 520                                      | Advanced Psychological Statistics I      | 3     |



|                    |                                                                    |           |
|--------------------|--------------------------------------------------------------------|-----------|
| PSYX 521           | Advanced Psychological Statistics II                               | 4         |
| PSYX 523           | Research Design                                                    | 3         |
| PSYX 525           | Psychological Evaluation I                                         | 3         |
| PSYX 526           | Psychological Evaluation II: Objective Approaches and Applications | 3         |
| PSYX 530           | Clinical and Diagnostic Interviewing                               | 3         |
| PSYX 531           | Principles of Psychological Intervention                           | 3         |
| PSYX 532           | Advanced Psychopathology                                           | 3         |
| PSYX 534           | Applied Clinical Methods                                           | 17        |
| PSYX 551           | Advanced Personality                                               | 3         |
| PSYX 555           | Advanced Social and Developmental Psychology                       | 3         |
| PSYX 565           | Advanced Cognition                                                 | 3         |
| PSYX 571           | Advanced Physiological Psychology                                  | 3         |
| PSYX 630           | Ethics, Professional & Cultural Issues                             | 3         |
| PSYX 599           | Thesis/Research Project                                            | 3         |
| PSYX 631           | Intervention                                                       | 12        |
| or PSYX 632        | Current Clinical Topics                                            |           |
| or PSYX 535        | Child Interventions                                                |           |
| or PSYX 536        | Advanced Child and Adolescent Psychopathology                      |           |
| or PSYX 537        | Child Assessment                                                   |           |
| PSYX 638           | Clinical Psychology Internship                                     | 3         |
| PSYX 699           | Dissertation                                                       | 6         |
| <b>Total Hours</b> |                                                                    | <b>88</b> |

## Master of Arts - Psychology; Clinical Psychology Concentration

The University of Montana Department of Psychology does not admit students seeking only a master's degree; however, a Master of Arts degree is conferred on route to the terminal doctoral degree based on credits and completion of the MA Thesis Project and the requirements listed below.

### Course Requirements

| Code                                          | Title                                                              | Hours |
|-----------------------------------------------|--------------------------------------------------------------------|-------|
| <b>Complete all of the following courses:</b> |                                                                    |       |
| PSYX 501                                      | Teaching of Psychology                                             | 3     |
| PSYX 511                                      | Professional Issues                                                | 1     |
| PSYX 520                                      | Advanced Psychological Statistics I                                | 3     |
| PSYX 521                                      | Advanced Psychological Statistics II                               | 4     |
| PSYX 523                                      | Research Design                                                    | 3     |
| PSYX 525                                      | Psychological Evaluation I                                         | 3     |
| PSYX 526                                      | Psychological Evaluation II: Objective Approaches and Applications | 3     |
| PSYX 530                                      | Clinical and Diagnostic Interviewing                               | 3     |
| PSYX 531                                      | Principles of Psychological Intervention                           | 3     |
| PSYX 532                                      | Advanced Psychopathology                                           | 3     |
| PSYX 534                                      | Applied Clinical Methods                                           | 8     |
| PSYX 630                                      | Ethics, Professional & Cultural Issues                             | 3     |
| PSYX 599                                      | Thesis/Research Project                                            | 3     |
| PSYX 631                                      | Intervention                                                       | 3     |

or PSYX 632 Current Clinical Topics

**Complete 2 of the following courses:** **6**

PSYX 550 Advanced Social Psychology

PSYX 551 Advanced Personality

PSYX 555 Advanced Social and Developmental Psychology

PSYX 565 Advanced Cognition

PSYX 571 Advanced Physiological Psychology

**Total Hours**

**52**

## Psychology Ph.D. - Experimental Psychology

### General Graduate Program Requirements

Graduate School policies and standards can be found on the Graduate School Policies page (p. 440).

The minimum GPA for any graduate program is 3.0. Individual programs may require more than a 3.0 to remain in good standing.

The minimum grade for a course to be accepted toward any master's or doctoral requirement is C. The minimum grade for a course to be accepted toward a certificate program is B-. Individual programs may require higher grades for specific courses.

### Doctor of Philosophy - Psychology; Experimental Psychology Concentration

- This program requires a minimum grade of B-.
- A Master of Arts in Psychology with a concentration in Experimental Psychology is conferred on route to the terminal doctoral degree based on credits and completion of the MA Thesis Project.
- This is an Experimental Psychology program. As such, it is expected that students will be engaged in research in some form in almost every term they are in our program.
- The exact nature of this will be arranged with the faculty advisor. Students are urged to conduct research not only with their primary advisor, but with at least one other member of the Psychology Department faculty as well.
- Each student's program of study will be at least somewhat individualized. Thus, the specific courses a student takes and the sequence of those courses will be decided upon in careful consultation with a primary advisor (or advisors) in the student's major area.
- In addition to faculty in a student's major area, all faculty within the Psychology Department should be viewed as potential resource persons available to enrich the training experience of all Experimental students.

### Course Requirements

| Code                                          | Title                                | Hours |
|-----------------------------------------------|--------------------------------------|-------|
| <b>Complete all of the following courses:</b> |                                      |       |
| PSYX 501                                      | Teaching of Psychology               | 3     |
| PSYX 520                                      | Advanced Psychological Statistics I  | 3     |
| PSYX 521                                      | Advanced Psychological Statistics II | 4     |
| PSYX 523                                      | Research Design                      | 3     |
| PSYX 594                                      | Seminar                              | 3     |

|                                                      |                                   |           |
|------------------------------------------------------|-----------------------------------|-----------|
| PSYX 694                                             | Seminar                           | 3         |
| <b>Complete four of the following courses:</b>       |                                   | <b>12</b> |
| PSYX 522                                             | Multivariate Statistics           |           |
| PSYX 540                                             | Advanced Development Psychology   |           |
| PSYX 550                                             | Advanced Social Psychology        |           |
| PSYX 551                                             | Advanced Personality              |           |
| PSYX 560                                             | Advanced Learning & Cognition     |           |
| PSYX 565                                             | Advanced Cognition                |           |
| PSYX 571                                             | Advanced Physiological Psychology |           |
| <b>Complete 41 credits of the following courses:</b> |                                   | <b>41</b> |
| PSYX 590                                             | Research                          |           |
| PSYX 599                                             | Thesis/Research Project           |           |
| PSYX 690                                             | Advanced Research                 |           |
| PSYX 699                                             | Dissertation                      |           |
| <b>Total Hours</b>                                   |                                   | <b>72</b> |

## Master of Arts - Psychology; Experimental Psychology Concentration

The University of Montana Department of Psychology does not admit students seeking only a master's degree; however, a Master of Arts degree is conferred on route to the terminal doctoral degree based on credits and completion of the MA Thesis Project and the requirements listed below.

### Course Requirements

| Code                                          | Title                                | Hours     |
|-----------------------------------------------|--------------------------------------|-----------|
| <b>Complete all of the following courses:</b> |                                      |           |
| PSYX 501                                      | Teaching of Psychology               | 3         |
| PSYX 520                                      | Advanced Psychological Statistics I  | 3         |
| PSYX 521                                      | Advanced Psychological Statistics II | 4         |
| PSYX 523                                      | Research Design                      | 3         |
| PSYX 590                                      | Research                             | 9         |
| PSYX 599                                      | Thesis/Research Project              | 6         |
| PSYX 690                                      | Advanced Research                    | 3         |
| <b>Complete two of the following courses:</b> |                                      | <b>6</b>  |
| PSYX 522                                      | Multivariate Statistics              |           |
| PSYX 540                                      | Advanced Development Psychology      |           |
| PSYX 550                                      | Advanced Social Psychology           |           |
| PSYX 551                                      | Advanced Personality                 |           |
| PSYX 560                                      | Advanced Learning & Cognition        |           |
| PSYX 565                                      | Advanced Cognition                   |           |
| PSYX 571                                      | Advanced Physiological Psychology    |           |
| <b>Total Hours</b>                            |                                      | <b>37</b> |

## Psychology Ph.D. - School Psychology

### General Graduate Program Requirements

Graduate School policies and standards can be found on the Graduate School Policies page (p. 440).

The minimum GPA for any graduate program is 3.0. Individual programs may require more than a 3.0 to remain in good standing.

The minimum grade for a course to be accepted toward any master's or doctoral requirement is C. The minimum grade for a course to be accepted toward a certificate program is B-. Individual programs may require higher grades for specific courses.

## Doctor of Philosophy - Psychology; School Psychology Concentration

- This program requires a minimum grade of B-.
- A Master of Arts degree is conferred on route to the terminal doctoral degree based on credits and completion of the MA Thesis Project.
- Minor changes may occur due to availability of course offerings.

### Required Courses

| Code                                                                     | Title                                         | Hours          |
|--------------------------------------------------------------------------|-----------------------------------------------|----------------|
| Complete all of the following courses:                                   |                                               |                |
| EDSP 462                                                                 | Special Education Law, Policy, and Practice   | 3              |
| PSYX 501                                                                 | Teaching of Psychology                        | 3              |
| PSYX 520                                                                 | Advanced Psychological Statistics I           | 3              |
| PSYX 521                                                                 | Advanced Psychological Statistics II          | 4              |
| PSYX 522                                                                 | Multivariate Statistics                       | 3              |
| PSYX 523                                                                 | Research Design                               | 3              |
| PSYX 525                                                                 | Psychological Evaluation I                    | 3              |
| PSYX 530                                                                 | Clinical and Diagnostic Interviewing          | 3              |
| PSYX 534                                                                 | Applied Clinical Methods                      | 8              |
| PSYX 535                                                                 | Child Interventions                           | 3              |
| PSYX 536                                                                 | Advanced Child and Adolescent Psychopathology | 3              |
| PSYX 580                                                                 | Professional School Psychology                | 3              |
| PSYX 582                                                                 | Behavioral Assessment & Intervention          | 3              |
| PSYX 583                                                                 | Academic Assessment & Intervention            | 3              |
| PSYX 587                                                                 | School Psychology Methods                     | 9              |
| PSYX 588                                                                 | School Psychology Internship                  | 3              |
| PSYX 599                                                                 | Thesis/Research Project                       | 4-6            |
| PSYX 699                                                                 | Dissertation                                  | 7-9            |
| <b>Advanced Practicum/Assistantship</b>                                  |                                               |                |
| Complete 6 credits of the following courses:                             |                                               | <b>6</b>       |
| PSYX 512                                                                 | Field Placement-Clinical                      |                |
| PSYX 587                                                                 | School Psychology Methods                     |                |
| PSYX 634                                                                 | Advanced Applications of Clinical Methods     |                |
| <b>Electives</b>                                                         |                                               | <b>36</b>      |
| Complete 36 credits of graduate-level courses in the following subjects: |                                               |                |
| COUN                                                                     | Counselor Education                           |                |
| EDSP                                                                     | Education K-12: Special Education             |                |
| PSYX                                                                     | Psychology                                    |                |
| <b>Total Hours</b>                                                       |                                               | <b>113-117</b> |

## Master of Arts - School Psychology

The University of Montana Department of Psychology does not admit students seeking only a master's degree; however, a Master of Arts degree is conferred on route to the terminal doctoral degree based on credits and completion of the MA Thesis Project and the requirements listed below.

### Required Courses

| Code                                                                     | Title                                         | Hours     |
|--------------------------------------------------------------------------|-----------------------------------------------|-----------|
| Complete all of the following courses:                                   |                                               |           |
| EDSP 462                                                                 | Special Education Law, Policy, and Practice   | 3         |
| PSYX 501                                                                 | Teaching of Psychology                        | 3         |
| PSYX 520                                                                 | Advanced Psychological Statistics I           | 3         |
| PSYX 521                                                                 | Advanced Psychological Statistics II          | 4         |
| PSYX 522                                                                 | Multivariate Statistics                       | 3         |
| PSYX 523                                                                 | Research Design                               | 3         |
| PSYX 525                                                                 | Psychological Evaluation I                    | 3         |
| PSYX 530                                                                 | Clinical and Diagnostic Interviewing          | 3         |
| PSYX 535                                                                 | Child Interventions                           | 3         |
| PSYX 536                                                                 | Advanced Child and Adolescent Psychopathology | 3         |
| PSYX 580                                                                 | Professional School Psychology                | 3         |
| PSYX 582                                                                 | Behavioral Assessment & Intervention          | 3         |
| PSYX 583                                                                 | Academic Assessment & Intervention            | 3         |
| PSYX 587                                                                 | School Psychology Methods                     | 9         |
| PSYX 599                                                                 | Thesis/Research Project                       | 4         |
| <b>Electives</b>                                                         |                                               | <b>15</b> |
| Complete 15 credits of graduate-level courses in the following subjects: |                                               |           |
| COUN                                                                     | Counselor Education                           |           |
| EDSP                                                                     | Education K-12: Special Education             |           |
| PSYX                                                                     | Psychology                                    |           |
| <b>Total Hours</b>                                                       |                                               | <b>68</b> |

## School Psychology S.S.P.

### General Graduate Program Requirements

Graduate School policies and standards can be found on the Graduate School Policies page (p. 440).

The minimum GPA for any graduate program is 3.0. Individual programs may require more than a 3.0 to remain in good standing.

The minimum grade for a course to be accepted toward any master's or doctoral requirement is C. The minimum grade for a course to be accepted toward a certificate program is B-. Individual programs may require higher grades for specific courses.

### Specialist in School Psychology (S.S.P.)

- This program requires a minimum grade of B-.
- Minor changes may occur due to availability of course offerings.

### Course Requirements

| Code                                   | Title                                         | Hours     |
|----------------------------------------|-----------------------------------------------|-----------|
| Complete all of the following courses: |                                               |           |
| COUN 511                               | Theories & Techniques of Counseling           | 3         |
| EDSP 462                               | Special Education Law, Policy, and Practice   | 3         |
| EDU 510                                | Developmental & Learning Sciences             | 3         |
| EDU 514                                | Education Across Cultures                     | 3         |
| EDU 520                                | Educational Research                          | 3         |
| PSYX 520                               | Advanced Psychological Statistics I           | 3         |
| PSYX 525                               | Psychological Evaluation I                    | 3         |
| PSYX 530                               | Clinical and Diagnostic Interviewing          | 3         |
| PSYX 535                               | Child Interventions                           | 3         |
| PSYX 536                               | Advanced Child and Adolescent Psychopathology | 3         |
| PSYX 540                               | Advanced Development Psychology               | 3         |
| PSYX 580                               | Professional School Psychology                | 3         |
| PSYX 582                               | Behavioral Assessment & Intervention          | 3         |
| PSYX 583                               | Academic Assessment & Intervention            | 3         |
| PSYX 587                               | School Psychology Methods                     | 12        |
| PSYX 680                               | Consultation and Supervision                  | 3         |
| PSYX 588                               | School Psychology Internship                  | 12        |
| <b>Total Hours</b>                     |                                               | <b>69</b> |

## Master of Arts - School Psychology

A Master of Arts degree is conferred on route to the Specialist in School Psychology degree upon successful completion of a comprehensive exam and the requirements outlined below.

### Course Requirements

| Code                                   | Title                                         | Hours     |
|----------------------------------------|-----------------------------------------------|-----------|
| Complete all of the following courses: |                                               |           |
| COUN 511                               | Theories & Techniques of Counseling           | 3         |
| EDSP 462                               | Special Education Law, Policy, and Practice   | 3         |
| EDU 510                                | Developmental & Learning Sciences             | 3         |
| EDU 514                                | Education Across Cultures                     | 3         |
| EDU 520                                | Educational Research                          | 3         |
| PSYX 520                               | Advanced Psychological Statistics I           | 3         |
| PSYX 525                               | Psychological Evaluation I                    | 3         |
| PSYX 530                               | Clinical and Diagnostic Interviewing          | 3         |
| PSYX 535                               | Child Interventions                           | 3         |
| PSYX 536                               | Advanced Child and Adolescent Psychopathology | 3         |
| PSYX 540                               | Advanced Development Psychology               | 3         |
| PSYX 580                               | Professional School Psychology                | 3         |
| PSYX 582                               | Behavioral Assessment & Intervention          | 3         |
| PSYX 583                               | Academic Assessment & Intervention            | 3         |
| PSYX 587                               | School Psychology Methods                     | 12        |
| PSYX 680                               | Consultation and Supervision                  | 3         |
| <b>Total Hours</b>                     |                                               | <b>57</b> |

# Sociology & Criminology Programs

- Sociology M.A. (p. 534)
- Sociology M.A. - Criminology (p. 534)
- Sociology M.A. - Inequality and Social Justice (p. 535)

## Sociology M.A. General Graduate Program Requirements

Graduate School policies and standards can be found on the Graduate School Policies page (p. 440).

The minimum GPA for any graduate program is 3.0. Individual programs may require more than a 3.0 to remain in good standing.

The minimum grade for a course to be accepted toward any master's or doctoral requirement is C. The minimum grade for a course to be accepted toward a certificate program is B-. Individual programs may require higher grades for specific courses.

## Master of Arts - Sociology

- Graduate students must have previously taken or plan to take SOCI 455 or an equivalent.
- At least half of all credits earned for the degree, excluding a combined total of 10 semester credits for thesis and research, will be at the 500- or 600-level; however, with a few exceptions, 400-level courses may also be applied to the graduate degree. All undergraduate courses taken for graduate credit require a graduate increment consisting of additional reading or writing. 400-level courses that have been approved to be offered for graduate credits have the words "Level: Undergraduate-Graduate" in their course descriptions.
- Students in the graduate program can pursue either a thesis option or an applied sociological experience option:
  - Students interested in the thesis option must complete 30 credits. A minimum of three of these credits (and a maximum of six) will be in SOCI 599. A thesis is an original, in-depth study of a social phenomenon, in which the student makes clear linkages between sociological theory, data collection and/or analysis, and research findings.
  - Students interested in the applied experience option must complete 30 credits, six of which must be in SOCI 598. Students who select this option will complete a year-long internship and will engage in extensive written reflection about that experience under the supervision of a faculty member.
  - Students will formally express interest in one of these two options during the spring semester of their first year. Students interested in the thesis option will submit a brief proposal for their project. The Sociology faculty will review all thesis proposals, select a sub-set of proposals to support, and assign a faculty mentor to each selected project. Students interested in the applied sociological experience option will work with their faculty advisor to select several appropriate field sites for their applied experience and will apply for internships at that site. During their second year, these students will work with the faculty member supervising the department's internship course to develop and complete an extensive written reflection about their applied experience.

## Course Requirements

| Code                                                             | Title                            | Hours |
|------------------------------------------------------------------|----------------------------------|-------|
| Qualitative Methods                                              |                                  | 3     |
| Complete one of the following courses:                           |                                  |       |
| SOCI 561                                                         | Qualitative Methods              |       |
| COMX 561                                                         | Qualitative Research Methods     |       |
| Quantitative Methods                                             |                                  | 3     |
| Complete one of the following courses:                           |                                  |       |
| SOCI 562                                                         | Quantitative Methods             |       |
| SOCI 563                                                         | Social Data Analysis             |       |
| Writing-Intensive Course                                         |                                  | 3     |
| Complete one of the following courses:                           |                                  |       |
| SOCI 425                                                         | Victims and Society              |       |
| SOCI 469                                                         | Homicide                         |       |
| SOCI 520                                                         | Contemporary Social Theory       |       |
| SOCI 538                                                         | Seminar in Crime & Deviance      |       |
| Thesis or Applied Experience                                     |                                  | 21    |
| Complete the following courses for the thesis option:            |                                  |       |
| 15-18 credits in graduate-level Sociology (SOCI) courses.        |                                  |       |
| SOCI 599                                                         | Thesis (6 credits)               |       |
| Complete the following course for the applied experience option: |                                  |       |
| 15 credits in graduate-level Sociology (SOCI) courses.           |                                  |       |
| SOCI 598                                                         | Sociology Internship (6 credits) |       |
| Total Hours                                                      |                                  | 30    |

## Sociology M.A. - Criminology General Graduate Program Requirements

Graduate School policies and standards can be found on the Graduate School Policies page (p. 440).

The minimum GPA for any graduate program is 3.0. Individual programs may require more than a 3.0 to remain in good standing.

The minimum grade for a course to be accepted toward any master's or doctoral requirement is C. The minimum grade for a course to be accepted toward a certificate program is B-. Individual programs may require higher grades for specific courses.

## Master of Arts - Sociology; Criminology Concentration

- Graduate students must have previously taken or plan to take SOCI 455 or an equivalent.
- At least half of all credits earned for the degree, excluding a combined total of 10 semester credits for thesis and research, will be at the 500- or 600-level; however, with a few exceptions, 400-level courses may also be applied to the graduate degree. All undergraduate courses taken for graduate credit require a graduate increment consisting of additional reading or writing. 400-level courses that have been approved to be offered for graduate credits have the words "Level: Undergraduate-Graduate" in their course descriptions.
- Students in the graduate program can pursue either a thesis option or an applied sociological experience option:
  - Students interested in the thesis option must complete 30 credits. A minimum of three of these credits (and a maximum of

six) will be in SOCI 599. A thesis is an original, in-depth study of a social phenomenon, in which the student makes clear linkages between sociological theory, data collection and/or analysis, and research findings.

- Students interested in the applied experience option must complete 30 credits, six of which must be in SOCI 598. Students who select this option will complete a year-long internship and will engage in extensive written reflection about that experience under the supervision of a faculty member.
- Students will formally express interest in one of these two options during the spring semester of their first year. Students interested in the thesis option will submit a brief proposal for their project. The Sociology faculty will review all thesis proposals, select a sub-set of proposals to support, and assign a faculty mentor to each selected project. Students interested in the applied sociological experience option will work with their faculty advisor to select several appropriate field sites for their applied experience and will apply for internships at that site. During their second year, these students will work with the faculty member supervising the department's internship course to develop and complete an extensive written reflection about their applied experience.

## Course Requirements

| Code                                   | Title                                        | Hours |
|----------------------------------------|----------------------------------------------|-------|
| <b>Qualitative Methods</b>             |                                              |       |
| Complete one of the following courses: |                                              | 3     |
| SOCI 561                               | Qualitative Methods                          |       |
| COMX 561                               | Qualitative Research Methods                 |       |
| <b>Quantitative Methods</b>            |                                              |       |
| Complete one of the following courses: |                                              | 3     |
| SOCI 562                               | Quantitative Methods                         |       |
| SOCI 563                               | Social Data Analysis                         |       |
| <b>Writing-Intensive Course</b>        |                                              |       |
| Complete one of the following courses: |                                              | 3     |
| SOCI 425                               | Victims and Society                          |       |
| SOCI 469                               | Homicide                                     |       |
| SOCI 520                               | Contemporary Social Theory                   |       |
| SOCI 538                               | Seminar in Crime & Deviance                  |       |
| <b>Criminology Course</b>              |                                              |       |
| Complete one of the following courses: |                                              | 3     |
| SOCI 414                               | Family Violence                              |       |
| SOCI 422                               | Sociology of Punishment                      |       |
| SOCI 423                               | Sociology of Corrections                     |       |
| SOCI 425                               | Victims and Society                          |       |
| SOCI 437                               | Communities and Crime                        |       |
| SOCI 439                               | Advanced Criminological Theory               |       |
| SOCI 440                               | Deviant and Criminal Behavior                |       |
| SOCI 450                               | Gender, Crime, and Justice                   |       |
| SOCI 469                               | Homicide                                     |       |
| SOCI 475                               | Work, Labor, and the Criminal Justice System |       |
| SOCI 538                               | Seminar in Crime & Deviance                  |       |
| SOCI 590                               | Graduate Research                            |       |
| Other courses approved by your advisor |                                              |       |
| <b>Thesis or Applied Experience</b>    |                                              |       |

Complete one of the following options: 18

### Thesis Option:

12-15 credits in graduate-level Sociology (SOCI) courses.

SOCI 599 Thesis (3-6 credits)

### Applied Experience Option:

12 credits in graduate-level Sociology (SOCI) courses.

SOCI 598 Sociology Internship (6 credits)

**Total Hours** 30

## Sociology M.A. - Inequality and Social Justice

### General Graduate Program Requirements

Graduate School policies and standards can be found on the Graduate School Policies page (p. 440).

The minimum GPA for any graduate program is 3.0. Individual programs may require more than a 3.0 to remain in good standing.

The minimum grade for a course to be accepted toward any master's or doctoral requirement is C. The minimum grade for a course to be accepted toward a certificate program is B-. Individual programs may require higher grades for specific courses.

## Master of Arts - Sociology; Inequality and Social Justice Concentration

- Graduate students must have previously taken or plan to take SOCI 455 or an equivalent.
- At least half of all credits earned for the degree, excluding a combined total of 10 semester credits for thesis and research, will be at the 500- or 600-level; however, with a few exceptions, 400-level courses may also be applied to the graduate degree. All undergraduate courses taken for graduate credit require a graduate increment consisting of additional reading or writing. 400-level courses that have been approved to be offered for graduate credits have the words "Level: Undergraduate-Graduate" in their course descriptions.
- Students in the graduate program can pursue either a thesis option or an applied sociological experience option:
  - Students interested in the thesis option must complete 30 credits. A minimum of three of these credits (and a maximum of six) will be in SOCI 599. A thesis is an original, in-depth study of a social phenomenon, in which the student makes clear linkages between sociological theory, data collection and/or analysis, and research findings.
  - Students interested in the applied experience option must complete 30 credits, six of which must be in SOCI 598. Students who select this option will complete a year-long internship and will engage in extensive written reflection about that experience under the supervision of a faculty member.
  - Students will formally express interest in one of these two options during the spring semester of their first year. Students interested in the thesis option will submit a brief proposal for their project. The Sociology faculty will review all thesis proposals, select a sub-set of proposals to support, and assign a faculty mentor to each selected project. Students interested in the applied sociological experience option will work with their faculty advisor to select several appropriate field sites for their applied experience and will apply for internships at that site. During their



second year, these students will work with the faculty member supervising the department's internship course to develop and complete an extensive written reflection about their applied experience.

Course Requirements

| Code                                                             | Title                                                             | Hours |
|------------------------------------------------------------------|-------------------------------------------------------------------|-------|
| Qualitative Methods                                              |                                                                   | 3     |
| Complete one of the following courses:                           |                                                                   |       |
| SOCI 561                                                         | Qualitative Methods                                               |       |
| COMX 561                                                         | Qualitative Research Methods                                      |       |
| Quantitative Methods                                             |                                                                   | 3     |
| Complete one of the following courses:                           |                                                                   |       |
| SOCI 562                                                         | Quantitative Methods                                              |       |
| SOCI 563                                                         | Social Data Analysis                                              |       |
| Writing-Intensive Course                                         |                                                                   | 3     |
| Complete one of the following courses:                           |                                                                   |       |
| SOCI 425                                                         | Victims and Society                                               |       |
| SOCI 469                                                         | Homicide                                                          |       |
| SOCI 520                                                         | Contemporary Social Theory                                        |       |
| SOCI 538                                                         | Seminar in Crime & Deviance                                       |       |
| Inequality and Social Justice Course                             |                                                                   | 3     |
| Complete one of the following courses:                           |                                                                   |       |
| COMX 520                                                         | Seminar in Organizational Communication                           |       |
| EDU 514                                                          | Education Across Cultures                                         |       |
| HSTA 570                                                         | U.S. Women's History                                              |       |
| HSTA 577                                                         | Law, Capitalism, and Democracy in U.S. History                    |       |
| HSTA 591                                                         | Special Topics (Readings in Native American History)              |       |
| HSTR 585                                                         | Latin America                                                     |       |
| LAW 595                                                          | Special Topics (Interdisciplinary Criminal Justice Reform (ICJR)) |       |
| NRSM 570                                                         | Political Ecology                                                 |       |
| PSCI 521                                                         | Globalization                                                     |       |
| PSCI 582                                                         | Politics of the World Economy                                     |       |
| PUBH 525                                                         | Multicultural/Native American Public Health                       |       |
| PUBH 560                                                         | Environmental & Rural Health                                      |       |
| PUBH 580                                                         | Rural Health Issues Global Context                                |       |
| SOCI 414                                                         | Family Violence                                                   |       |
| SOCI 443                                                         | Sociology of Poverty                                              |       |
| SOCI 470                                                         | Environmental Sociology                                           |       |
| SOCI 475                                                         | Work, Labor, and the Criminal Justice System                      |       |
| Other courses approved by your advisor                           |                                                                   |       |
| Thesis or Applied Experience                                     |                                                                   | 18    |
| Complete the following courses for the thesis option:            |                                                                   |       |
| 12-15 credits in graduate-level Sociology (SOCI) courses.        |                                                                   |       |
| SOCI 599                                                         | Thesis (6 credits)                                                |       |
| Complete the following course for the applied experience option: |                                                                   |       |
| 12 credits in graduate-level Sociology (SOCI) courses.           |                                                                   |       |

|             |                                  |
|-------------|----------------------------------|
| SOCI 598    | Sociology Internship (6 credits) |
| Total Hours | 30                               |

Women's, Gender, and Sexuality Studies

Programs

- Women's, Gender, and Sexuality Studies Graduate Certificate (p. 536)

Women's, Gender, and Sexuality Studies Graduate Certificate

Students in the Women's, Gender, and Sexuality Studies graduate certificate program explore links between their chosen field of study and an interdisciplinary approach that addresses questions of gender, race, and class. The certificate is designed for master's and Ph.D. level students who would like to obtain credentials and interdisciplinary training in Women's, Gender and Sexuality Studies and will train them for further research in Women's, Gender and Sexuality Studies and will provide an important perspective for those pursuing careers in fields such as social work, psychology, law, advocacy, non-profit administration, and education.

General Graduate Program Requirements

Graduate School policies and standards can be found on the Graduate School Policies page (p. 440).

The minimum GPA for any graduate program is 3.0. Individual programs may require more than a 3.0 to remain in good standing.

The minimum grade for a course to be accepted toward any master's or doctoral requirement is C. The minimum grade for a course to be accepted toward a certificate program is B-. Individual programs may require higher grades for specific courses.

Graduate Certificate - Women's, Gender, and Sexuality Studies

Because not all courses with WGSS content at the graduate level are offered every year, there is no one "core" course. Students should select a core course from the list of approved courses based on the degree they will pursue. Students pursuing degrees in the humanities should select at least one social science course, and students pursuing degrees in the social sciences should select at least one humanities course. Students in other degree programs should contact the WGSS Director.

- Many courses may count for WGSS graduate certificate credit. Please check with the WGSS Director for more information.
- At least 6 of the 12 credits required for the certificate must be 500 level or higher.
- Other courses may apply to the electives requirement with the approval of the program director.

## Course Requirements

| Code                                                                                                                                                                                                                                  | Title                          | Hours     |
|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|--------------------------------|-----------|
| <b>Core Requirement</b>                                                                                                                                                                                                               |                                |           |
| Complete one 3-credit graduate-level course outside of your major area of study. Students in the sciences or social sciences should complete a humanities course. Students in the humanities should complete a social science course. |                                | 3         |
| <b>Electives</b>                                                                                                                                                                                                                      |                                |           |
| Complete 9 credits from WGSS-approved graduate-level courses in WGSS, LIT, HSTA, AAST, SOCI, PSYX, ANTY, SW, COMX, ENST, NASX, CSD, BMGT, PHL, SLP, and PUAD.                                                                         |                                | 9         |
| Approved courses include:                                                                                                                                                                                                             |                                |           |
| ANTY 427                                                                                                                                                                                                                              | Anthropology of Gender         |           |
| COMX 449                                                                                                                                                                                                                              | Rhetoric of Women's Activism   |           |
| HSTA 570                                                                                                                                                                                                                              | U.S. Women's History           |           |
| PSYX 430                                                                                                                                                                                                                              | Counseling Theories in Context |           |
| SOCI 443                                                                                                                                                                                                                              | Sociology of Poverty           |           |
| HSTA 471                                                                                                                                                                                                                              | Writing Women's Lives          |           |
| WGSS 592                                                                                                                                                                                                                              | Independent Study              |           |
| WGSS 598                                                                                                                                                                                                                              | Internship                     |           |
| <b>Total Hours</b>                                                                                                                                                                                                                    |                                | <b>12</b> |

## College of Science Graduate Programs

- Division of Biological & Biomedical Sciences (p. 537)
  - Cellular, Molecular, and Microbial Biology M.S. (p. 537)
  - Cellular, Molecular, and Microbial Biology M.S. - Cellular and Developmental Biology (p. 538)
  - Cellular, Molecular, and Microbial Biology M.S. - Microbial Evolution and Ecology (p. 539)
  - Cellular, Molecular, and Microbial Biology M.S. - Microbiology and Immunology (p. 539)
  - Cellular, Molecular, and Microbial Biology MS - Molecular Biology and Biochemistry (p. 540)
  - Cellular, Molecular, and Microbial Biology Ph.D. (p. 540)
  - Cellular, Molecular, and Microbial Biology Ph.D. - Cellular and Developmental Biology (p. 541)
  - Cellular, Molecular, and Microbial Biology Ph.D. - Microbial Evolution and Ecology (p. 541)
  - Cellular, Molecular, and Microbial Biology Ph.D. - Microbiology and Immunology (p. 542)
  - Cellular, Molecular, and Microbial Biology Ph.D. - Molecular Biology and Biochemistry (p. 543)
  - Ecology and Evolution M.S. (p. 543)
  - Ecology and Evolution Ph.D. (p. 543)
  - Neuroscience M.S. (p. 544)
  - Neuroscience Ph.D. (p. 544)
- Chemistry and Biochemistry (p. 545)
  - Biochemistry and Biophysics M.S. (p. 545)
  - Biochemistry and Biophysics Ph.D. (p. 546)
  - Chemistry M.S. (p. 546)
  - Chemistry M.S. - Analytical Environmental Chemistry (p. 547)
  - Chemistry M.S. - Inorganic Chemistry (p. 548)
  - Chemistry M.S. - Organic Chemistry (p. 548)
  - Chemistry M.S. - Physical Chemistry (p. 549)
  - Chemistry Ph.D. - Analytical Environmental Chemistry (p. 549)
  - Chemistry Ph.D. - Inorganic Chemistry (p. 550)
  - Chemistry Ph.D. - Organic Chemistry (p. 551)
  - Chemistry Ph.D. - Physical Chemistry (p. 551)
- Computer Science (p. 552)
  - Computer Science M.S. (p. 552)
  - Computer Science Ph.D. (p. 553)
- Mathematical Sciences (p. 554)
  - Data Science M.S. (p. 554)
  - Mathematics M.A. (p. 554)
  - Mathematics Ph.D. (p. 555)

## Division of Biological & Biomedical Sciences

- Cellular, Molecular, and Microbial Biology M.S. (p. 537)
- Cellular, Molecular, and Microbial Biology M.S. - Cellular and Developmental Biology (p. 538)
- Cellular, Molecular, and Microbial Biology M.S. - Microbial Evolution and Ecology (p. 539)
- Cellular, Molecular, and Microbial Biology M.S. - Microbiology and Immunology (p. 539)
- Cellular, Molecular, and Microbial Biology MS - Molecular Biology and Biochemistry (p. 540)
- Cellular, Molecular, and Microbial Biology Ph.D. (p. 540)
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- Cellular, Molecular, and Microbial Biology Ph.D. - Microbial Evolution and Ecology (p. 541)
- Cellular, Molecular, and Microbial Biology Ph.D. - Microbiology and Immunology (p. 542)
- Cellular, Molecular, and Microbial Biology Ph.D. - Molecular Biology and Biochemistry (p. 543)
- Ecology and Evolution M.S. (p. 543)
- Ecology and Evolution Ph.D. (p. 543)
- Neuroscience M.S. (p. 544)
- Neuroscience Ph.D. (p. 544)

## Cellular, Molecular, and Microbial Biology M.S.

### General Graduate Program Requirements

Graduate School policies and standards can be found on the Graduate School Policies page (p. 440).

The minimum GPA for any graduate program is 3.0. Individual programs may require more than a 3.0 to remain in good standing.

The minimum grade for a course to be accepted toward any master's or doctoral requirement is C. The minimum grade for a course to be accepted toward a certificate program is B-. Individual programs may require higher grades for specific courses.

## Master of Science - Cellular, Molecular, and Microbial Biology

- All CMMB M.S. students have a common set of requirements: students must take a total of 30 semester credits, including 20 semester credits of courses (includes any course other than Thesis and Research).
- At least half of the non-thesis and non-research credits toward the degree must be at the 500 or 600 level.
- The following credit limitations apply:
  - A maximum of 6 credits of Special Topics (BCH 591, BIOB 591 and BIOM 591).
  - A maximum of 6 credits of Independent Study (BIOB 592, and BIOM 592).
  - A maximum of 10 credits of research and thesis (BCH 590, BIOB 590, BCH 599, and BIOM 599).

### Course Requirements

| Code                                                                                                                                                      | Title                                                  | Hours     |
|-----------------------------------------------------------------------------------------------------------------------------------------------------------|--------------------------------------------------------|-----------|
| <b>Core Courses</b>                                                                                                                                       |                                                        |           |
| Complete all of the following courses:                                                                                                                    |                                                        |           |
| BCH 570<br>or BIOM 570                                                                                                                                    | Intro to Research                                      | 1         |
| BIOB 547                                                                                                                                                  | Experimental Molecular, Cellular, and Chemical Biology | 2         |
| BIOM 594                                                                                                                                                  | Molecular and Biomedical Sciences Seminar              | 4         |
| <b>Electives, Research, and Thesis</b>                                                                                                                    |                                                        |           |
| Complete 23 credits of elective courses:                                                                                                                  |                                                        | 23        |
| Elective courses can include any graduate-level course in General Biology (BIOB), Microbiology (BIOM), and Biochemistry (BCH). Suggested courses include: |                                                        |           |
| BCH 581                                                                                                                                                   | Physical Biochemistry                                  |           |
| BCH 582                                                                                                                                                   | Proteins and Enzymes                                   |           |
| BCH 584                                                                                                                                                   | Nucleic Acids                                          |           |
| BCH 591<br>or BIOM 591                                                                                                                                    | Special Topics                                         |           |
| BCH 590<br>or BIOM 590                                                                                                                                    | Research                                               |           |
| BCH 599<br>or BIOM 599                                                                                                                                    | Thesis                                                 |           |
| BCH 600                                                                                                                                                   | Cell Organization & Mechanisms                         |           |
| BIOB 567                                                                                                                                                  | Molecular Analysis of Development                      |           |
| BIOM 502                                                                                                                                                  | Advanced Immunology                                    |           |
| BIOM 535                                                                                                                                                  | Advanced Virology                                      |           |
| BIOM 540                                                                                                                                                  | Microbial Pathogenesis                                 |           |
| BIOM 592                                                                                                                                                  | Independent Study                                      |           |
| <b>Total Hours</b>                                                                                                                                        |                                                        | <b>30</b> |

## Cellular, Molecular, and Microbial Biology M.S. - Cellular and Developmental Biology

### General Graduate Program Requirements

Graduate School policies and standards can be found on the Graduate School Policies page (p. 440).

The minimum GPA for any graduate program is 3.0. Individual programs may require more than a 3.0 to remain in good standing.

The minimum grade for a course to be accepted toward any master's or doctoral requirement is C. The minimum grade for a course to be accepted toward a certificate program is B-. Individual programs may require higher grades for specific courses.

### Master of Science - Cellular, Molecular, and Microbial Biology; Cellular and Developmental Biology Concentration

- All CMMB M.S. students have a common set of requirements: students must take a total of 30 semester credits, including 20 semester credits of courses (includes any course other than Thesis and Research).
- At least half of the non-thesis and non-research credits toward the degree must be at the 500 or 600 level.
- The following credit limitations apply:
  - A maximum of 6 credits of Special Topics (BCH 591, BIOB 591 and BIOM 591).
  - A maximum of 6 credits of Independent Study (BIOB 592, and BIOM 592).
  - A maximum of 10 credits of research and thesis (BCH 590, BIOB 590, BCH 599, and BIOM 599).

### Course Requirements

| Code                                                                                                                                                      | Title                                                  | Hours |
|-----------------------------------------------------------------------------------------------------------------------------------------------------------|--------------------------------------------------------|-------|
| <b>Core Courses</b>                                                                                                                                       |                                                        |       |
| Complete all of the following courses:                                                                                                                    |                                                        |       |
| BCH 570<br>or BIOM 570                                                                                                                                    | Intro to Research                                      | 1     |
| BIOB 547                                                                                                                                                  | Experimental Molecular, Cellular, and Chemical Biology | 2     |
| BIOM 594                                                                                                                                                  | Molecular and Biomedical Sciences Seminar              | 4     |
| <b>Elective, Research, and Thesis</b>                                                                                                                     |                                                        |       |
| Complete 23 credits of elective courses.                                                                                                                  |                                                        | 23    |
| Elective courses can include any graduate-level course in General Biology (BIOB), Microbiology (BIOM), and Biochemistry (BCH). Suggested courses include: |                                                        |       |
| BCH 590<br>or BIOM 590                                                                                                                                    | Research                                               |       |
| BCH 599<br>or BIOM 599                                                                                                                                    | Thesis                                                 |       |
| BIOM 502                                                                                                                                                  | Advanced Immunology                                    |       |
| BIOB 567                                                                                                                                                  | Molecular Analysis of Development                      |       |

|                    |                                |
|--------------------|--------------------------------|
| BCH 582            | Proteins and Enzymes           |
| BCH 584            | Nucleic Acids                  |
| BCH 600            | Cell Organization & Mechanisms |
| <hr/>              |                                |
| <b>Total Hours</b> | <b>30</b>                      |

## Cellular, Molecular, and Microbial Biology M.S. - Microbial Evolution and Ecology

### General Graduate Program Requirements

Graduate School policies and standards can be found on the Graduate School Policies page (p. 440).

The minimum GPA for any graduate program is 3.0. Individual programs may require more than a 3.0 to remain in good standing.

The minimum grade for a course to be accepted toward any master's or doctoral requirement is C. The minimum grade for a course to be accepted toward a certificate program is B-. Individual programs may require higher grades for specific courses.

## Master of Science - Cellular, Molecular, and Microbial Biology; Microbial Evolution and Ecology Concentration

- All CMMB M.S. students have a common set of requirements: students must take a total of 30 semester credits, including 20 semester credits of courses (includes any course other than Thesis and Research).
- At least half of the non-thesis and non-research credits toward the degree must be at the 500 or 600 level.
- The following credit limitations apply:
  - A maximum of 6 credits of Special Topics (BCH 591, BIOB 591 and BIOM 591).
  - A maximum of 6 credits of Independent Study (BIOB 592, and BIOM 592).
  - A maximum of 10 credits of research and thesis (BCH 590, BIOB 590, BCH 599, and BIOM 599).

### Course Requirements

| Code                                                                                                                                                      | Title                                                  | Hours |
|-----------------------------------------------------------------------------------------------------------------------------------------------------------|--------------------------------------------------------|-------|
| <b>Core Courses</b>                                                                                                                                       |                                                        |       |
| Complete all of the following courses:                                                                                                                    |                                                        |       |
| BCH 570<br>or BIOM 570                                                                                                                                    | Intro to Research                                      | 1     |
| BIOB 547                                                                                                                                                  | Experimental Molecular, Cellular, and Chemical Biology | 2     |
| BIOM 594                                                                                                                                                  | Molecular and Biomedical Sciences Seminar              | 4     |
| <b>Electives, Research, and Thesis</b>                                                                                                                    |                                                        |       |
| Complete 23 credits of elective courses.                                                                                                                  |                                                        | 23    |
| Elective courses can include any graduate-level course in General Biology (BIOB), Microbiology (BIOM), and Biochemistry (BCH). Suggested courses include: |                                                        |       |
| BCH 582                                                                                                                                                   | Proteins and Enzymes                                   |       |
| BCH 584                                                                                                                                                   | Nucleic Acids                                          |       |

|                    |                                  |           |
|--------------------|----------------------------------|-----------|
| BCH 590            | Research<br>or BIOM 590 Research |           |
| BCH 599            | Thesis<br>or BIOM 599 Thesis     |           |
| <b>Total Hours</b> |                                  | <b>30</b> |

## Cellular, Molecular, and Microbial Biology M.S. - Microbiology and Immunology

### General Graduate Program Requirements

Graduate School policies and standards can be found on the Graduate School Policies page (p. 440).

The minimum GPA for any graduate program is 3.0. Individual programs may require more than a 3.0 to remain in good standing.

The minimum grade for a course to be accepted toward any master's or doctoral requirement is C. The minimum grade for a course to be accepted toward a certificate program is B-. Individual programs may require higher grades for specific courses.

## Master of Science - Cellular, Molecular, and Microbial Biology; Microbiology and Immunology Concentration

- All CMMB M.S. students have a common set of requirements: students must take a total of 30 semester credits, including 20 semester credits of courses (includes any course other than Thesis and Research).
- At least half of the non-thesis and non-research credits toward the degree must be at the 500 or 600 level.
- The following credit limitations apply:
  - A maximum of 6 credits of Special Topics (BCH 591, BIOB 591 and BIOM 591).
  - A maximum of 6 credits of Independent Study (BIOB 592, and BIOM 592).
  - A maximum of 10 credits of research and thesis (BCH 590, BIOB 590, BCH 599, and BIOM 599).

### Course Requirements

| Code                                                                                                                                                      | Title                                                  | Hours |
|-----------------------------------------------------------------------------------------------------------------------------------------------------------|--------------------------------------------------------|-------|
| <b>Core Courses</b>                                                                                                                                       |                                                        |       |
| Complete all of the following courses:                                                                                                                    |                                                        |       |
| BCH 570<br>or BIOM 570                                                                                                                                    | Intro to Research                                      | 1     |
| BIOB 547                                                                                                                                                  | Experimental Molecular, Cellular, and Chemical Biology | 2     |
| BIOM 594                                                                                                                                                  | Molecular and Biomedical Sciences Seminar              | 4     |
| <b>Electives, Research, and Thesis</b>                                                                                                                    |                                                        |       |
| Complete 23 credits of elective courses.                                                                                                                  |                                                        | 23    |
| Elective courses can include any graduate-level course in General Biology (BIOB), Microbiology (BIOM), and Biochemistry (BCH). Suggested courses include: |                                                        |       |
| BCH 582                                                                                                                                                   | Proteins and Enzymes                                   |       |

|                    |                                  |           |
|--------------------|----------------------------------|-----------|
| BCH 584            | Nucleic Acids                    |           |
| BCH 590            | Research<br>or BIOM 590 Research |           |
| BCH 599            | Thesis<br>or BIOM 599 Thesis     |           |
| BCH 600            | Cell Organization & Mechanisms   |           |
| BIOM 502           | Advanced Immunology              |           |
| BIOM 540           | Microbial Pathogenesis           |           |
| <b>Total Hours</b> |                                  | <b>30</b> |

# Cellular, Molecular, and Microbial Biology MS - Molecular Biology and Biochemistry

## General Graduate Program Requirements

Graduate School policies and standards can be found on the Graduate School Policies page (p. 440).

The minimum GPA for any graduate program is 3.0. Individual programs may require more than a 3.0 to remain in good standing.

The minimum grade for a course to be accepted toward any master's or doctoral requirement is C. The minimum grade for a course to be accepted toward a certificate program is B-. Individual programs may require higher grades for specific courses.

## Master of Science - Cellular, Molecular, and Microbial Biology; Molecular Biology and Biochemistry Concentration

- All CMMB M.S. students have a common set of requirements: students must take a total of 30 semester credits, including 20 semester credits of courses (includes any course other than Thesis and Research).
- At least half of the non-thesis and non-research credits toward the degree must be at the 500 or 600 level.
- The following credit limitations apply:
  - A maximum of 6 credits of Special Topics (BCH 591, BIOB 591 and BIOM 591).
  - A maximum of 6 credits of Independent Study (BIOB 592, and BIOM 592).
  - A maximum of 10 credits of research and thesis (BCH 590, BIOB 590, BCH 599, and BIOM 599).

### Course Requirements

| Code                                   | Title                                                  | Hours |
|----------------------------------------|--------------------------------------------------------|-------|
| Core Courses                           |                                                        |       |
| Complete all of the following courses: |                                                        |       |
| BCH 570                                | Intro to Research                                      | 1     |
| or BIOM 570                            | Intro to Research                                      |       |
| BIOB 547                               | Experimental Molecular, Cellular, and Chemical Biology | 2     |
| BIOM 594                               | Molecular and Biomedical Sciences Seminar              | 4     |
| Electives, Research, and Thesis        |                                                        |       |

|                                                                                                                                                           |                                  |    |
|-----------------------------------------------------------------------------------------------------------------------------------------------------------|----------------------------------|----|
| Complete 23 credits of elective courses.                                                                                                                  |                                  | 23 |
| Elective courses can include any graduate-level course in General Biology (BIOB), Microbiology (BIOM), and Biochemistry (BCH). Suggested courses include: |                                  |    |
| BCH 581                                                                                                                                                   | Physical Biochemistry            |    |
| BCH 582                                                                                                                                                   | Proteins and Enzymes             |    |
| BCH 584                                                                                                                                                   | Nucleic Acids                    |    |
| BCH 590                                                                                                                                                   | Research<br>or BIOM 590 Research |    |
| BCH 599                                                                                                                                                   | Thesis<br>or BIOM 599 Thesis     |    |
| BCH 600                                                                                                                                                   | Cell Organization & Mechanisms   |    |
| Total Hours                                                                                                                                               |                                  | 30 |

# Cellular, Molecular, and Microbial Biology Ph.D.

## General Graduate Program Requirements

Graduate School policies and standards can be found on the Graduate School Policies page (p. 440).

The minimum GPA for any graduate program is 3.0. Individual programs may require more than a 3.0 to remain in good standing.

The minimum grade for a course to be accepted toward any master's or doctoral requirement is C. The minimum grade for a course to be accepted toward a certificate program is B-. Individual programs may require higher grades for specific courses.

## Doctor of Philosophy - Cellular, Molecular, and Microbial Biology

- All CMMB PhD students have a common set of requirements: students must take a total of 60 semester credits, including 20 semester credits of courses (includes any course other than Dissertation and Research).
- At least three 3-credit (or more) graduate courses at the 500 or 600 level.
- In addition to coursework, all PhD students must teach at least one semester (typically as a Graduate Teaching Assistant) and must rotate in at least two research laboratories.
- The following credit limitations apply:
  - A maximum of 6 credits of Special Topics (BCH 591, BIOB 591, and BIOM 591).
  - A maximum of 6 credits of Independent Study (BIOB 592, and BIOM 592).
  - A maximum of 20 credits of dissertation (BCH 699 and BIOM 699).

### Course Requirements

| Code                                   | Title                                                  | Hours |
|----------------------------------------|--------------------------------------------------------|-------|
| Core Courses                           |                                                        |       |
| Complete all of the following courses: |                                                        |       |
| BCH 570                                | Intro to Research                                      | 2     |
| or BIOM 570                            | Intro to Research                                      |       |
| BIOB 547                               | Experimental Molecular, Cellular, and Chemical Biology | 4     |



|          |                                           |   |
|----------|-------------------------------------------|---|
| BIOM 594 | Molecular and Biomedical Sciences Seminar | 4 |
|----------|-------------------------------------------|---|

#### Electives, Research, and Dissertation

Complete 50 credits of elective courses. 50

Elective courses can include any graduate-level course in General Biology (BIOB), Microbiology (BIOM), and Biochemistry (BCH). Suggested courses include:

|             |                                   |
|-------------|-----------------------------------|
| BCH 581     | Physical Biochemistry             |
| BCH 582     | Proteins and Enzymes              |
| BCH 584     | Nucleic Acids                     |
| BCH 591     | Special Topics                    |
| or BIOM 591 | Special Topics                    |
| BCH 590     | Research                          |
| or BIOM 590 | Research                          |
| BCH 600     | Cell Organization & Mechanisms    |
| BCH 699     | Dissertation                      |
| or BIOM 699 | Dissertation                      |
| BIOB 567    | Molecular Analysis of Development |
| BIOM 502    | Advanced Immunology               |
| BIOM 535    | Advanced Virology                 |
| BIOM 540    | Microbial Pathogenesis            |
| BIOM 592    | Independent Study                 |

**Total Hours** 60

- A maximum of 6 credits of Special Topics (BCH 591, BIOB 591 and BIOM 591).
- A maximum of 6 credits of Independent Study (BIOB 592, and BIOM 592).
- A maximum of 20 credits of dissertation (BCH 699 and BIOM 699).

### Course Requirements

| Code                                                                                                                                                      | Title                                                  | Hours |
|-----------------------------------------------------------------------------------------------------------------------------------------------------------|--------------------------------------------------------|-------|
| <b>Core Courses</b>                                                                                                                                       |                                                        |       |
| Complete all of the following courses:                                                                                                                    |                                                        |       |
| BCH 570                                                                                                                                                   | Intro to Research                                      | 2     |
| or BIOM 570                                                                                                                                               | Intro to Research                                      |       |
| BIOB 547                                                                                                                                                  | Experimental Molecular, Cellular, and Chemical Biology | 4     |
| BIOM 594                                                                                                                                                  | Molecular and Biomedical Sciences Seminar              | 4     |
| <b>Electives, Research, and Dissertation</b>                                                                                                              |                                                        |       |
| Complete 50 credits of elective courses. 50                                                                                                               |                                                        |       |
| Elective courses can include any graduate-level course in General Biology (BIOB), Microbiology (BIOM), and Biochemistry (BCH). Suggested courses include: |                                                        |       |
| BCH 582                                                                                                                                                   | Proteins and Enzymes                                   |       |
| BCH 584                                                                                                                                                   | Nucleic Acids                                          |       |
| BCH 590                                                                                                                                                   | Research                                               |       |
| or BIOM 590                                                                                                                                               | Research                                               |       |
| BCH 600                                                                                                                                                   | Cell Organization & Mechanisms                         |       |
| BCH 699                                                                                                                                                   | Dissertation                                           |       |
| or BIOM 699                                                                                                                                               | Dissertation                                           |       |
| BIOB 567                                                                                                                                                  | Molecular Analysis of Development                      |       |
| BIOM 502                                                                                                                                                  | Advanced Immunology                                    |       |
| <b>Total Hours</b> 60                                                                                                                                     |                                                        |       |

## Cellular, Molecular, and Microbial Biology Ph.D. - Cellular and Developmental Biology

### General Graduate Program Requirements

Graduate School policies and standards can be found on the Graduate School Policies page (p. 440).

The minimum GPA for any graduate program is 3.0. Individual programs may require more than a 3.0 to remain in good standing.

The minimum grade for a course to be accepted toward any master's or doctoral requirement is C. The minimum grade for a course to be accepted toward a certificate program is B-. Individual programs may require higher grades for specific courses.

## Doctor of Philosophy - Cellular, Molecular, and Microbial Biology; Cellular and Developmental Biology Concentration

- All CMMB PhD students have a common set of requirements: students must take a total of 60 semester credits, including 20 semester credits of courses (includes any course other than Dissertation and Research).
- At least three 3-credit (or more) graduate courses at the 500 or 600 level.
- In addition to coursework, all PhD students must teach at least one semester (typically as a Graduate Teaching Assistant) and must rotate in at least two research laboratories.
- The following credit limitations apply:

## Cellular, Molecular, and Microbial Biology Ph.D. - Microbial Evolution and Ecology

### General Graduate Program Requirements

Graduate School policies and standards can be found on the Graduate School Policies page (p. 440).

The minimum GPA for any graduate program is 3.0. Individual programs may require more than a 3.0 to remain in good standing.

The minimum grade for a course to be accepted toward any master's or doctoral requirement is C. The minimum grade for a course to be accepted toward a certificate program is B-. Individual programs may require higher grades for specific courses.

## Doctor of Philosophy - Cellular, Molecular, and Microbial Biology; Microbial Evolution and Ecology Concentration

- All CMMB PhD students have a common set of requirements: students must take a total of 60 semester credits, including 20

semester credits of courses (includes any course other than Dissertation and Research).

- At least three 3-credit (or more) graduate courses at the 500 or 600 level.
- In addition to coursework, all PhD students must teach at least one semester (typically as a Graduate Teaching Assistant) and must rotate in at least two research laboratories.
- The following credit limitations apply:
  - A maximum of 6 credits of Special Topics (BCH 591, BIOB 591, and BIOM 591).
  - A maximum of 6 credits of Independent Study (BIOB 592, and BIOM 592).
  - A maximum of 20 credits of dissertation (BCH 699 and BIOM 699).

Course Requirements

| Code                                                                                                                                                      | Title                                                  | Hours |
|-----------------------------------------------------------------------------------------------------------------------------------------------------------|--------------------------------------------------------|-------|
| Core Courses                                                                                                                                              |                                                        |       |
| Complete all of the following courses:                                                                                                                    |                                                        |       |
| BCH 570                                                                                                                                                   | Intro to Research                                      | 2     |
| or BIOM 570                                                                                                                                               | Intro to Research                                      |       |
| BIOB 547                                                                                                                                                  | Experimental Molecular, Cellular, and Chemical Biology | 4     |
| BIOM 594                                                                                                                                                  | Molecular and Biomedical Sciences Seminar              | 4     |
| Electives, Research, and Dissertation                                                                                                                     |                                                        |       |
| Complete 50 credits of elective courses.                                                                                                                  |                                                        | 50    |
| Elective courses can include any graduate-level course in General Biology (BIOB), Microbiology (BIOM), and Biochemistry (BCH). Suggested courses include: |                                                        |       |
| BCH 582                                                                                                                                                   | Proteins and Enzymes                                   |       |
| BCH 584                                                                                                                                                   | Nucleic Acids                                          |       |
| BCH 590                                                                                                                                                   | Research                                               |       |
| or BIOM 590                                                                                                                                               | Research                                               |       |
| BCH 699                                                                                                                                                   | Dissertation                                           |       |
| or BIOM 699                                                                                                                                               | Dissertation                                           |       |
| Total Hours                                                                                                                                               |                                                        | 60    |

Cellular, Molecular, and Microbial Biology Ph.D. - Microbiology and Immunology

General Graduate Program Requirements

Graduate School policies and standards can be found on the Graduate School Policies page (p. 440).

The minimum GPA for any graduate program is 3.0. Individual programs may require more than a 3.0 to remain in good standing.

The minimum grade for a course to be accepted toward any master’s or doctoral requirement is C. The minimum grade for a course to be accepted toward a certificate program is B-. Individual programs may require higher grades for specific courses.

Doctor of Philosophy - Cellular, Molecular, and Microbial Biology; Microbiology and Immunology Concentration

- All CMMB PhD students have a common set of requirements: students must take a total of 60 semester credits, including 20 semester credits of courses (includes any course other than Dissertation and Research).
- At least three 3-credit (or more) graduate courses at the 500 or 600 level.
- In addition to coursework, all PhD students must teach at least one semester (typically as a Graduate Teaching Assistant) and must rotate in at least two research laboratories.
- The following credit limitations apply:
  - A maximum of 6 credits of Special Topics (BCH 591, BIOB 591, and BIOM 591).
  - A maximum of 6 credits of Independent Study (BIOB 592, and BIOM 592).
  - A maximum of 20 credits of dissertation (BCH 699 and BIOM 699).

Course Requirements

| Code                                                                                                                                                      | Title                                                  | Hours |
|-----------------------------------------------------------------------------------------------------------------------------------------------------------|--------------------------------------------------------|-------|
| Core Courses                                                                                                                                              |                                                        |       |
| Complete all of the following courses:                                                                                                                    |                                                        |       |
| BCH 570                                                                                                                                                   | Intro to Research                                      | 2     |
| or BIOM 570                                                                                                                                               | Intro to Research                                      |       |
| BIOB 547                                                                                                                                                  | Experimental Molecular, Cellular, and Chemical Biology | 4     |
| BIOM 594                                                                                                                                                  | Molecular and Biomedical Sciences Seminar              | 4     |
| Electives, Research, and Dissertation                                                                                                                     |                                                        |       |
| Complete 50 credits of elective courses.                                                                                                                  |                                                        | 50    |
| Elective courses can include any graduate-level course in General Biology (BIOB), Microbiology (BIOM), and Biochemistry (BCH). Suggested courses include: |                                                        |       |
| BCH 582                                                                                                                                                   | Proteins and Enzymes                                   |       |
| BCH 584                                                                                                                                                   | Nucleic Acids                                          |       |
| BCH 590                                                                                                                                                   | Research                                               |       |
| or BIOM 590                                                                                                                                               | Research                                               |       |
| BCH 600                                                                                                                                                   | Cell Organization & Mechanisms                         |       |
| BCH 699                                                                                                                                                   | Dissertation                                           |       |
| or BIOM 699                                                                                                                                               | Dissertation                                           |       |
| BIOM 502                                                                                                                                                  | Advanced Immunology                                    |       |
| BIOM 540                                                                                                                                                  | Microbial Pathogenesis                                 |       |
| Total Hours                                                                                                                                               |                                                        | 60    |

# Cellular, Molecular, and Microbial Biology Ph.D. - Molecular Biology and Biochemistry

## General Graduate Program Requirements

Graduate School policies and standards can be found on the Graduate School Policies page (p. 440).

The minimum GPA for any graduate program is 3.0. Individual programs may require more than a 3.0 to remain in good standing.

The minimum grade for a course to be accepted toward any master's or doctoral requirement is C. The minimum grade for a course to be accepted toward a certificate program is B-. Individual programs may require higher grades for specific courses.

## Doctor of Philosophy - Cellular, Molecular, and Microbial Biology; Molecular Biology and Biochemistry Concentration

- All CMMB PhD students have a common set of requirements: students must take a total of 60 semester credits, including 20 semester credits of courses (includes any course other than Dissertation and Research).
- At least three 3-credit (or more) graduate courses at the 500 or 600 level.
- In addition to coursework, all PhD students must teach at least one semester (typically as a Graduate Teaching Assistant) and must rotate in at least two research laboratories.
- The following credit limitations apply:
  - A maximum of 6 credits of Special Topics (BCH 591, BIOB 591, and BIOM 591).
  - A maximum of 6 credits of Independent Study (BIOB 592, and BIOM 592).
  - A maximum of 20 credits of dissertation (BCH 699 and BIOM 699).

### Course Requirements

| Code                                                                                                                                                      | Title                                                  | Hours |
|-----------------------------------------------------------------------------------------------------------------------------------------------------------|--------------------------------------------------------|-------|
| <b>Core Courses</b>                                                                                                                                       |                                                        |       |
| Complete all of the following courses:                                                                                                                    |                                                        |       |
| BCH 570                                                                                                                                                   | Intro to Research                                      | 2     |
| or BIOM 570                                                                                                                                               | Intro to Research                                      |       |
| BIOB 547                                                                                                                                                  | Experimental Molecular, Cellular, and Chemical Biology | 4     |
| BIOM 594                                                                                                                                                  | Molecular and Biomedical Sciences Seminar              | 4     |
| <b>Electives, Research, and Dissertation</b>                                                                                                              |                                                        |       |
| Complete 50 credits of elective courses.                                                                                                                  |                                                        | 50    |
| Elective courses can include any graduate-level course in General Biology (BIOB), Microbiology (BIOM), and Biochemistry (BCH). Suggested courses include: |                                                        |       |
| BCH 581                                                                                                                                                   | Physical Biochemistry                                  |       |
| BCH 582                                                                                                                                                   | Proteins and Enzymes                                   |       |
| BCH 584                                                                                                                                                   | Nucleic Acids                                          |       |
| BCH 590                                                                                                                                                   | Research                                               |       |

|                          |                                |
|--------------------------|--------------------------------|
| or BIOM 590 Research     |                                |
| BCH 600                  | Cell Organization & Mechanisms |
| BCH 699                  | Dissertation                   |
| or BIOM 699 Dissertation |                                |
| <b>Total Hours</b>       | <b>60</b>                      |

## Ecology and Evolution M.S.

### General Graduate Program Requirements

Graduate School policies and standards can be found on the Graduate School Policies page (p. 440).

The minimum GPA for any graduate program is 3.0. Individual programs may require more than a 3.0 to remain in good standing.

The minimum grade for a course to be accepted toward any master's or doctoral requirement is C. The minimum grade for a course to be accepted toward a certificate program is B-. Individual programs may require higher grades for specific courses.

## Master of Science - Ecology and Evolution

- Students the Ecology and Evolution Master of Science program must complete a committee-approved program of 30 credits of graduate-level coursework. As many as 10 credits may be thesis (BIOB 599), and at least 10 credits of the non-thesis coursework must be at the 500-level or above.
- Students must complete a research seminar in the 2nd year of the program.
- Students must successfully propose and then defend a research thesis.

### Course Requirements

| Code                                                                | Title                                      | Hours     |
|---------------------------------------------------------------------|--------------------------------------------|-----------|
| <b>Core Courses</b>                                                 |                                            |           |
| Complete all of the following courses:                              |                                            |           |
| BIOB 594                                                            | Seminar in Biology (taken in the 2nd year) | 1         |
| BIOB 505                                                            | OBE Core Course - Genetics and Evolution   | 4         |
| or BIOB 506                                                         | OBE Core Course - Ecology                  |           |
| <b>Electives, Research, and Thesis</b>                              |                                            |           |
| Complete 25 credits of graduate-level courses, research, or thesis. |                                            | 25        |
| <b>Total Hours</b>                                                  |                                            | <b>30</b> |

## Ecology and Evolution Ph.D.

### General Graduate Program Requirements

Graduate School policies and standards can be found on the Graduate School Policies page (p. 440).

The minimum GPA for any graduate program is 3.0. Individual programs may require more than a 3.0 to remain in good standing.

The minimum grade for a course to be accepted toward any master's or doctoral requirement is C. The minimum grade for a course to be

accepted toward a certificate program is B-. Individual programs may require higher grades for specific courses.

## Doctor of Philosophy - Ecology and Evolution

- Students the Ecology and Evolution Ph.D program must complete 60 semester credits of graduate-level coursework. As many as 20 may be dissertation (BIOB 699). The other 40 credits may include coursework, graduate seminars, or independent study (BIOB 592).
- Students must complete a research seminar each year after the first.
- Students must complete a dissertation proposal. This is generally completed by the end of their 2nd year.
- Students must complete comprehensive exams, both written and oral. These are generally completed by fall of their 3rd year.
- Students must complete a dissertation.

### Course Requirements

| Code                                                                      | Title                                      | Hours     |
|---------------------------------------------------------------------------|--------------------------------------------|-----------|
| <b>Core Courses</b>                                                       |                                            |           |
| Complete all of the following courses:                                    |                                            |           |
| BIOB 594                                                                  | Seminar in Biology (taken in the 2nd year) | 1         |
| BIOB 505                                                                  | OBE Core Course - Genetics and Evolution   | 4         |
| BIOB 506                                                                  | OBE Core Course - Ecology                  | 4         |
| <b>Electives, Research, and Dissertation</b>                              |                                            |           |
| Complete 51 credits of graduate-level courses, research, or dissertation. |                                            | 51        |
| <b>Total Hours</b>                                                        |                                            | <b>60</b> |

## Neuroscience M.S.

The Neuroscience M.S. program curriculum is flexible and coursework and a research thesis are intended to be completed in two years.

The University of Montana Neuroscience Program also offers a combined Bachelor of Science and Master of Science degree pathway with an emphasis on Cellular & Molecular Neuroscience. This five-year accelerated program is specifically designed for students who have demonstrated academic excellence and are deeply interested in pursuing intensive research training in preparation for graduate/professional schools or who wish to enter the biomedical/biotech sector with advanced standing. The first 3 years of study are aligned with the existing Cellular & Molecular concentration of the B.S. in Neuroscience. Some students in the Cognitive & Behavioral concentration may also be eligible depending upon their course selections. In their 4th year, students will take graduate neuroscience courses and complete their B.S. degree. This will allow students to enter the Neuroscience graduate program with advanced standing and, pending completion and defense of an M.S. thesis project, earn a B.S. and an M.S. in 5 years.

See the Neuroscience website (<https://www.umt.edu/neuroscience/default.php>) for additional information.

### General Graduate Program Requirements

Graduate School policies and standards can be found on the Graduate School Policies page (p. 440).

The minimum GPA for any graduate program is 3.0. Individual programs may require more than a 3.0 to remain in good standing.

The minimum grade for a course to be accepted toward any master's or doctoral requirement is C. The minimum grade for a course to be accepted toward a certificate program is B-. Individual programs may require higher grades for specific courses.

## Master of Science - Neuroscience

### Course Requirements

| Code                                                                       | Title                                                  | Hours     |
|----------------------------------------------------------------------------|--------------------------------------------------------|-----------|
| <b>Core Requirements</b>                                                   |                                                        |           |
| Complete all of the following courses:                                     |                                                        |           |
| NEUR 582                                                                   | Research Seminar Neuroscience (Data Club) <sup>1</sup> | 1         |
| NEUR 590                                                                   | Graduate Research <sup>2</sup>                         | 10        |
| NEUR 594                                                                   | Seminar <sup>1</sup>                                   | 2         |
| NEUR 661                                                                   | Neuroscience I                                         | 4         |
| NEUR 667                                                                   | Topics in Neurobiology (Journal Club)                  | 1         |
| <b>Electives</b>                                                           |                                                        |           |
| Complete at least 12 elective credits. Suggested elective courses include: |                                                        | 12        |
| BCH 480                                                                    | Advanced Biochemistry I                                |           |
| BCH 482                                                                    | Advanced Biochemistry II                               |           |
| BCH 582                                                                    | Proteins and Enzymes                                   |           |
| BCH 600                                                                    | Cell Organization & Mechanisms                         |           |
| BIOB 425                                                                   | Advanced Cellular & Molecular Biology                  |           |
| BMED 605                                                                   | Biomedical Research Ethics                             |           |
| BMED 609                                                                   | Biomedical Statistics                                  |           |
| BMED 615                                                                   | Molecular Pharmacology                                 |           |
| NEUR 475                                                                   | Neuropharmacology                                      |           |
| NEUR 481                                                                   | Systems Neuroscience of Behavior and Cognition         |           |
| NEUR 485                                                                   | Neurolinguistics                                       |           |
| NEUR 585                                                                   | Neurolinguistics                                       |           |
| NEUR 610                                                                   | Neuropharmacology                                      |           |
| NEUR 667                                                                   | Topics in Neurobiology                                 |           |
| <b>Total Hours</b>                                                         |                                                        | <b>30</b> |

<sup>1</sup> Students may only take 1 credit per semester.  
<sup>2</sup> A minimum of 10 research credits is required for the Neuroscience M.S. degree.

## Neuroscience Ph.D.

The Neuroscience Ph.D program curriculum is flexible, and coursework is intended to be completed during the first two years of the doctoral program to allow for maximum time spent working on research in the student's selected advisor's laboratory.

See the Neuroscience website (<https://www.umt.edu/neuroscience/default.php>) for additional information.

### General Graduate Program Requirements

Graduate School policies and standards can be found on the Graduate School Policies page (p. 440).

The minimum GPA for any graduate program is 3.0. Individual programs may require more than a 3.0 to remain in good standing.

The minimum grade for a course to be accepted toward any master's or doctoral requirement is C. The minimum grade for a course to be accepted toward a certificate program is B-. Individual programs may require higher grades for specific courses.

## Doctor of Philosophy - Neuroscience

### Course Requirements

| Code                                                                                              | Title                                                   | Hours     |
|---------------------------------------------------------------------------------------------------|---------------------------------------------------------|-----------|
| <b>Core Requirements</b>                                                                          |                                                         |           |
| Complete all of the following courses:                                                            |                                                         |           |
| BCH 600                                                                                           | Cell Organization & Mechanisms <sup>1</sup>             | 3         |
| NEUR 570                                                                                          | Neuroscience Research Laboratory Rotations <sup>2</sup> | 2         |
| NEUR 582                                                                                          | Research Seminar Neuroscience <sup>2</sup>              | 4         |
| NEUR 594                                                                                          | Seminar <sup>2</sup>                                    | 2         |
| NEUR 661                                                                                          | Neuroscience I                                          | 4         |
| NEUR 667                                                                                          | Topics in Neurobiology (Journal Club)                   | 1         |
| <b>Graduate Research</b> <sup>3</sup>                                                             |                                                         |           |
| Complete a minimum of 20 credits in the following courses:                                        |                                                         | 20        |
| NEUR 590                                                                                          | Graduate Research                                       |           |
| NEUR 690                                                                                          | Graduate Research                                       |           |
| <b>Electives</b>                                                                                  |                                                         |           |
| Complete at least two elective courses (a minimum of 6 credits), according to research interests. |                                                         | 6         |
| <b>Additional Credits</b>                                                                         |                                                         |           |
| Complete 18 additional credits of electives or research.                                          |                                                         | 18        |
| <b>Total Hours</b>                                                                                |                                                         | <b>60</b> |

<sup>1</sup> Students without preparation in biochemistry must take BCH 480/BCH 482 as pre-requisite to BCH 600.

<sup>2</sup> Students may only take 1 credit per semester.

<sup>3</sup> A minimum of 20 combined research credits is required for the Neuroscience Ph.D. degree, but a maximum of 40 credits may be applied toward the 60-credit requirement for the Ph.D.

## Chemistry and Biochemistry

- Biochemistry and Biophysics M.S. (p. 545)
- Biochemistry and Biophysics Ph.D. (p. 546)
- Chemistry M.S. (p. 546)
- Chemistry M.S. - Analytical Environmental Chemistry (p. 547)
- Chemistry M.S. - Inorganic Chemistry (p. 548)
- Chemistry M.S. - Organic Chemistry (p. 548)
- Chemistry M.S. - Physical Chemistry (p. 549)
- Chemistry Ph.D. - Analytical Environmental Chemistry (p. 549)
- Chemistry Ph.D. - Inorganic Chemistry (p. 550)
- Chemistry Ph.D. - Organic Chemistry (p. 551)
- Chemistry Ph.D. - Physical Chemistry (p. 551)

## Biochemistry and Biophysics M.S.

The Master of Science program in Biochemistry and Biophysics (BCBP) provides the highest quality theoretical and hands-on research training to students interested in life processes at the molecular level. Training in the first and second years includes required and elective coursework in areas of study including proteins, nucleic acids, biophysics, and an array of courses related to human health and disease. Students begin laboratory research during one or two rotations in the first year and typically devote most of their time carrying out laboratory research during the second academic year. Students have a wide range of potential research topics to pursue in areas as diverse as protein folding, cutting edge biophysical methodologies, and molecular mechanisms of infectious disease, mentored by participating BCBP faculty in the Department of Chemistry and Biochemistry, the Division of Biological Sciences, and the College of Health. Graduate students who earn the M.S. degree are typically employed as researchers in academic, government, and pharmaceutical industry jobs.

### General Graduate Program Requirements

Graduate School policies and standards can be found on the Graduate School Policies page (p. 440).

The minimum GPA for any graduate program is 3.0. Individual programs may require more than a 3.0 to remain in good standing.

The minimum grade for a course to be accepted toward any master's or doctoral requirement is C. The minimum grade for a course to be accepted toward a certificate program is B-. Individual programs may require higher grades for specific courses.

## Master of Science - Biochemistry and Biophysics

- Students are required to complete a thesis proposal and a thesis.
- Coursework for Biochemistry & Biophysics graduate students is determined by the Advisory Committee. Electives may be substituted, if appropriate, with the approval of the student's Advisory Committee. All course work will normally be completed during the first two years of graduate study.

### Course Requirements

| Code                                         | Title                          | Hours |
|----------------------------------------------|--------------------------------|-------|
| <b>Core Requirements</b>                     |                                |       |
| Complete all of the following courses:       |                                |       |
| BCH 581                                      | Physical Biochemistry          | 3     |
| BCH 582                                      | Proteins and Enzymes           | 3     |
| BCH 584                                      | Nucleic Acids                  | 3     |
| BMED 605                                     | Biomedical Research Ethics     | 1     |
| <b>Lab Rotations</b>                         |                                |       |
| Complete the following course:               |                                |       |
| BCH 570                                      | Intro to Research              | 1     |
| <b>Electives</b>                             |                                |       |
| Complete 3 credits of the following courses: |                                | 3     |
| BCH 486                                      | Biochemistry Research Lab      |       |
| BCH 591                                      | Special Topics                 |       |
| BCH 600                                      | Cell Organization & Mechanisms |       |
| BIOM 502                                     | Advanced Immunology            |       |



|                                                        |                                                                         |
|--------------------------------------------------------|-------------------------------------------------------------------------|
| BIOM 535                                               | Advanced Virology                                                       |
| BMED 615                                               | Molecular Pharmacology                                                  |
| BMED 621                                               | Drug Design: Medicinal Chemistry and Pharmacology                       |
| CHMY 562                                               | Organic Structure and Mechanisms                                        |
| CHMY 591                                               | Special Topics                                                          |
| CSCI 558                                               | Intro to Bioinformatics                                                 |
| NEUR 661                                               | Neuroscience I                                                          |
| NEUR 667                                               | Topics in Neurobiology                                                  |
| <b>Seminar, Data Club, and Research</b>                |                                                                         |
| Complete at least 16 credits of the following courses: |                                                                         |
| BCH 547                                                | Graduate Student Data Club: Molecular & Biomedical Science <sup>1</sup> |
| BCH 590                                                | Research                                                                |
| BCH 694                                                | Biochemistry & Biophysics Seminar <sup>1</sup>                          |
| <b>Total Hours</b>                                     |                                                                         |
| 30                                                     |                                                                         |

<sup>1</sup> Students are required to register for 1 credit of BCH 547 and 1 credit of BCH 694 each fall and spring semester they are in the program.

## Biochemistry and Biophysics Ph.D.

The Ph.D. program in Biochemistry and Biophysics (BCBP) provides the highest quality theoretical and hands-on research training to students interested in life processes at the molecular level. Training in the first and second years includes required and elective coursework in areas of study including proteins, nucleic acids, biophysics, and an array of courses related to human health and disease. Students begin laboratory research during rotations in the first year and typically devote all of their time to research by the end of the second academic year. Students have a wide range of potential research topics to pursue in areas as diverse as protein folding, cutting edge biophysical methodologies, and molecular mechanisms of infectious disease, mentored by participating BCBP faculty in the Department of Chemistry and Biochemistry, the Division of Biological Sciences, and the College of Health. Graduate students who earn the Ph.D. degree are typically employed as researchers in academic, government, and pharmaceutical industry jobs.

### General Graduate Program Requirements

Graduate School policies and standards can be found on the Graduate School Policies page (p. 440).

The minimum GPA for any graduate program is 3.0. Individual programs may require more than a 3.0 to remain in good standing.

The minimum grade for a course to be accepted toward any master's or doctoral requirement is C. The minimum grade for a course to be accepted toward a certificate program is B-. Individual programs may require higher grades for specific courses.

## Doctor of Philosophy - Biochemistry and Biophysics

- Additional requirements include an original research proposal and exam.
- Coursework for Biochemistry & Biophysics graduate students is determined by the Advisory Committee. Electives may be substituted, if appropriate, with the approval of the student's Advisory Committee.

All course work will normally be completed during the first two years of graduate study.

### Course Requirements

| Code                                          | Title                                                                   | Hours     |
|-----------------------------------------------|-------------------------------------------------------------------------|-----------|
| <b>Core Requirements</b>                      |                                                                         |           |
| Complete all of the following courses:        |                                                                         |           |
| BCH 581                                       | Physical Biochemistry                                                   | 3         |
| BCH 582                                       | Proteins and Enzymes                                                    | 3         |
| BCH 584                                       | Nucleic Acids                                                           | 3         |
| BMED 605                                      | Biomedical Research Ethics                                              | 1         |
| <b>Lab Rotations</b>                          |                                                                         |           |
| Complete the following course:                |                                                                         |           |
| BCH 570                                       | Intro to Research                                                       | 1         |
| <b>Electives</b>                              |                                                                         |           |
| Complete 3 credits of the following courses:  |                                                                         | 3         |
| BCH 486                                       | Biochemistry Research Lab                                               |           |
| BCH 591                                       | Special Topics                                                          |           |
| BCH 600                                       | Cell Organization & Mechanisms                                          |           |
| BIOM 502                                      | Advanced Immunology                                                     |           |
| BIOM 535                                      | Advanced Virology                                                       |           |
| BMED 615                                      | Molecular Pharmacology                                                  |           |
| BMED 621                                      | Drug Design: Medicinal Chemistry and Pharmacology                       |           |
| CHMY 562                                      | Organic Structure and Mechanisms                                        |           |
| CHMY 591                                      | Special Topics                                                          |           |
| CSCI 558                                      | Intro to Bioinformatics                                                 |           |
| NEUR 661                                      | Neuroscience I                                                          |           |
| NEUR 667                                      | Topics in Neurobiology                                                  |           |
| <b>Seminar, Data Club, and Research</b>       |                                                                         |           |
| Complete 46 credits of the following courses: |                                                                         | 46        |
| BCH 547                                       | Graduate Student Data Club: Molecular & Biomedical Science <sup>1</sup> |           |
| BCH 590                                       | Research                                                                |           |
| BCH 694                                       | Biochemistry & Biophysics Seminar <sup>1</sup>                          |           |
| <b>Total Hours</b>                            |                                                                         | <b>60</b> |

<sup>1</sup> Students are required to register for 1 credit of BCH 547 and 1 credit of BCH 694 each fall and spring semester they are in the program.

## Chemistry M.S.

### General Graduate Program Requirements

Graduate School policies and standards can be found on the Graduate School Policies page (p. 440).

The minimum GPA for any graduate program is 3.0. Individual programs may require more than a 3.0 to remain in good standing.

The minimum grade for a course to be accepted toward any master's or doctoral requirement is C. The minimum grade for a course to be accepted toward a certificate program is B-. Individual programs may require higher grades for specific courses.

## Master of Science - Chemistry

### Requirements

- 18 credits must be traditional letter-grade courses, which is usually 6 courses at the 500 level
- At least 9 of the 18 credits must be in 500-level letter-graded courses.
- Up to 9 of the 18 credits may be in letter-graded courses in a non-chemistry focus area such as education, journalism, or business. These 9 credits taken outside the Department of Chemistry and Biochemistry must be approved by the advisory committee and the Graduate Education Committee.
- 20 of the 36 total credits must be in Chemistry (CHMY). Seminar, research, and professional paper credits at the 500- and 600-level and approved transfer credits can be included in this total. The Department and student's advisory committee may require more than the minimum Graduate School requirements.
- All graduate students will register for CHMY 630 every semester. Attending departmental research seminars is integral to a student's education and allows the student a chance to learn about areas of science outside of their research area. Attendance of these seminars is mandatory unless excused by the faculty member responsible for organizing the seminar. The method of grading this class is the choice of the faculty member organizing the seminar.

### Course Requirements

| Code                                                                                    | Title                                                                                     | Hours     |
|-----------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------------|-----------|
| <b>Core Requirements</b>                                                                |                                                                                           |           |
| Complete all of the following courses:                                                  |                                                                                           |           |
| CHMY 501                                                                                | Teaching University Chemistry (completed the first fall semester)                         | 1         |
| CHMY 630                                                                                | Seminar                                                                                   | 6         |
| CHMY 640                                                                                | Introductory Graduate Seminar (completed the first fall semester)                         | 1         |
| CHMY 650                                                                                | Graduate Chemistry Seminar (completed in the first two spring semesters, 1 each semester) | 2         |
| <b>Electives</b>                                                                        |                                                                                           |           |
| Complete 18 credits of graduate-level courses chosen in consultation with your advisor. |                                                                                           | 18        |
| <b>Research/Thesis</b>                                                                  |                                                                                           |           |
| Complete 8 credits of the following courses:                                            |                                                                                           | 8         |
| CHMY 590                                                                                | Research                                                                                  |           |
| CHMY 599                                                                                | Thesis/Professional Project                                                               |           |
| <b>Total Hours</b>                                                                      |                                                                                           | <b>36</b> |

## Chemistry M.S. - Analytical Environmental Chemistry

### General Graduate Program Requirements

Graduate School policies and standards can be found on the Graduate School Policies page (p. 440).

The minimum GPA for any graduate program is 3.0. Individual programs may require more than a 3.0 to remain in good standing.

The minimum grade for a course to be accepted toward any master's or doctoral requirement is C. The minimum grade for a course to be

accepted toward a certificate program is B-. Individual programs may require higher grades for specific courses.

## Master of Science - Chemistry; Analytical Environmental Chemistry Concentration

### Requirements

- 18 credits must be traditional letter-grade courses, which is usually 6 courses at the 500 level
- At least 9 of the 18 credits must be in 500-level letter-graded courses.
- Up to 9 of the 18 credits may be in letter-graded courses in a non-chemistry focus area such as education, journalism, or business. These 9 credits taken outside the Department of Chemistry and Biochemistry must be approved by the advisory committee and the Graduate Education Committee.
- 20 of the 36 total credits must be in Chemistry (CHMY). Seminar, research, and professional paper credits at the 500- and 600-level and approved transfer credits can be included in this total. The Department and student's advisory committee may require more than the minimum Graduate School requirements.
- All graduate students will register for CHMY 630 every semester. Attending departmental research seminars is integral to a student's education and allows the student a chance to learn about areas of science outside of their research area. Attendance of these seminars is mandatory unless excused by the faculty member responsible for organizing the seminar. The method of grading this class is the choice of the faculty member organizing the seminar.

### Course Requirements

| Code                                                                                   | Title                                                                                     | Hours     |
|----------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------------|-----------|
| <b>Core Requirements</b>                                                               |                                                                                           |           |
| Complete all of the following courses:                                                 |                                                                                           |           |
| CHMY 501                                                                               | Teaching University Chemistry (completed the first fall semester)                         | 1         |
| CHMY 630                                                                               | Seminar                                                                                   | 6         |
| CHMY 640                                                                               | Introductory Graduate Seminar (completed the first fall semester)                         | 1         |
| CHMY 650                                                                               | Graduate Chemistry Seminar (completed in the first two spring semesters, 1 each semester) | 2         |
| <b>Analytical/Environmental Chemistry Requirements</b>                                 |                                                                                           |           |
| Complete all of the following courses:                                                 |                                                                                           |           |
| CHMY 442                                                                               | Aquatic Chemistry                                                                         | 3         |
| CHMY 541                                                                               | Environmental Chemistry                                                                   | 3         |
| CHMY 543                                                                               | Mass Spectrometry                                                                         | 3         |
| <b>Electives</b>                                                                       |                                                                                           |           |
| Complete 9 credits of graduate-level courses chosen in consultation with your advisor. |                                                                                           | 9         |
| <b>Research/Thesis</b>                                                                 |                                                                                           |           |
| Complete 8 credits of the following courses:                                           |                                                                                           | 8         |
| CHMY 590                                                                               | Research                                                                                  |           |
| CHMY 599                                                                               | Thesis/Professional Project                                                               |           |
| <b>Total Hours</b>                                                                     |                                                                                           | <b>36</b> |

## Chemistry M.S. - Inorganic Chemistry

### General Graduate Program Requirements

Graduate School policies and standards can be found on the Graduate School Policies page (p. 440).

The minimum GPA for any graduate program is 3.0. Individual programs may require more than a 3.0 to remain in good standing.

The minimum grade for a course to be accepted toward any master's or doctoral requirement is C. The minimum grade for a course to be accepted toward a certificate program is B-. Individual programs may require higher grades for specific courses.

### Master of Science - Chemistry; Inorganic Chemistry Concentration Requirements

- 18 credits must be traditional letter-grade courses, which is usually 6 courses at the 500 level
- At least 9 of the 18 credits must be in 500-level letter-graded courses.
- Up to 9 of the 18 credits may be in letter-graded courses in a non-chemistry focus area such as education, journalism, or business. These 9 credits taken outside the Department of Chemistry and Biochemistry must be approved by the advisory committee and the Graduate Education Committee.
- 20 of the 36 total credits must be in Chemistry (CHMY). Seminar, research, and professional paper credits at the 500- and 600-level and approved transfer credits can be included in this total. The Department and student's advisory committee may require more than the minimum Graduate School requirements.
- All graduate students will register for CHMY 630 every semester. Attending departmental research seminars is integral to a student's education and allows the student a chance to learn about areas of science outside of their research area. Attendance of these seminars is mandatory unless excused by the faculty member responsible for organizing the seminar. The method of grading this class is the choice of the faculty member organizing the seminar.

### Course Requirements

| Code                                                                                    | Title                                                                                     | Hours |
|-----------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------------|-------|
| <b>Core Requirements</b>                                                                |                                                                                           |       |
| Complete all of the following courses:                                                  |                                                                                           |       |
| CHMY 501                                                                                | Teaching University Chemistry (completed the first fall semester)                         | 1     |
| CHMY 630                                                                                | Seminar                                                                                   | 6     |
| CHMY 640                                                                                | Introductory Graduate Seminar (completed the first fall semester)                         | 1     |
| CHMY 650                                                                                | Graduate Chemistry Seminar (completed in the first two spring semesters, 1 each semester) | 2     |
| <b>Inorganic Chemistry Requirements</b>                                                 |                                                                                           |       |
| Complete all of the following courses:                                                  |                                                                                           |       |
| CHMY 568                                                                                | Organometallic Chemistry                                                                  | 3     |
| CHMY 591                                                                                | Special Topics (Bioinorganic Chemistry)                                                   | 3     |
| <b>Electives</b>                                                                        |                                                                                           |       |
| Complete 12 credits of graduate-level courses chosen in consultation with your advisor. |                                                                                           | 12    |

### Research/Thesis

|                                              |                             |           |
|----------------------------------------------|-----------------------------|-----------|
| Complete 8 credits of the following courses: |                             | 8         |
| CHMY 590                                     | Research                    |           |
| CHMY 599                                     | Thesis/Professional Project |           |
| <b>Total Hours</b>                           |                             | <b>36</b> |

## Chemistry M.S. - Organic Chemistry

### General Graduate Program Requirements

Graduate School policies and standards can be found on the Graduate School Policies page (p. 440).

The minimum GPA for any graduate program is 3.0. Individual programs may require more than a 3.0 to remain in good standing.

The minimum grade for a course to be accepted toward any master's or doctoral requirement is C. The minimum grade for a course to be accepted toward a certificate program is B-. Individual programs may require higher grades for specific courses.

### Master of Science - Chemistry; Organic Chemistry Concentration Requirements

- 18 credits must be traditional letter-grade courses, which is usually 6 courses at the 500 level
- At least 9 of the 18 credits must be in 500-level letter-graded courses.
- Up to 9 of the 18 credits may be in letter-graded courses in a non-chemistry focus area such as education, journalism, or business. These 9 credits taken outside the Department of Chemistry and Biochemistry must be approved by the advisory committee and the Graduate Education Committee.
- 20 of the 36 total credits must be in Chemistry (CHMY). Seminar, research, and professional paper credits at the 500- and 600-level and approved transfer credits can be included in this total. The Department and student's advisory committee may require more than the minimum Graduate School requirements.
- All graduate students will register for CHMY 630 every semester. Attending departmental research seminars is integral to a student's education and allows the student a chance to learn about areas of science outside of their research area. Attendance of these seminars is mandatory unless excused by the faculty member responsible for organizing the seminar. The method of grading this class is the choice of the faculty member organizing the seminar.

### Course Requirements

| Code                                   | Title                                                                                     | Hours |
|----------------------------------------|-------------------------------------------------------------------------------------------|-------|
| <b>Core Requirements</b>               |                                                                                           |       |
| Complete all of the following courses: |                                                                                           |       |
| CHMY 501                               | Teaching University Chemistry (completed the first fall semester)                         | 1     |
| CHMY 630                               | Seminar                                                                                   | 6     |
| CHMY 640                               | Introductory Graduate Seminar (completed the first fall semester)                         | 1     |
| CHMY 650                               | Graduate Chemistry Seminar (completed in the first two spring semesters, 1 each semester) | 2     |
| <b>Organic Chemistry Requirements</b>  |                                                                                           |       |

|                                                                                        |                                  |           |
|----------------------------------------------------------------------------------------|----------------------------------|-----------|
| Complete all of the following courses:                                                 |                                  |           |
| CHMY 420                                                                               | Chemoinformatics                 | 3         |
| CHMY 465                                                                               | Organic Spectroscopy             | 3         |
| CHMY 562                                                                               | Organic Structure and Mechanisms | 3         |
| <b>Electives</b>                                                                       |                                  |           |
| Complete 9 credits of graduate-level courses chosen in consultation with your advisor. |                                  | 9         |
| <b>Research/Thesis</b>                                                                 |                                  |           |
| Complete 8 credits of the following courses:                                           |                                  | 8         |
| CHMY 590                                                                               | Research                         |           |
| CHMY 599                                                                               | Thesis/Professional Project      |           |
| <b>Total Hours</b>                                                                     |                                  | <b>36</b> |

## Chemistry M.S. - Physical Chemistry General Graduate Program Requirements

Graduate School policies and standards can be found on the Graduate School Policies page (p. 440).

The minimum GPA for any graduate program is 3.0. Individual programs may require more than a 3.0 to remain in good standing.

The minimum grade for a course to be accepted toward any master's or doctoral requirement is C. The minimum grade for a course to be accepted toward a certificate program is B-. Individual programs may require higher grades for specific courses.

## Master of Science - Chemistry; Physical Chemistry Concentration Requirements

- 18 credits must be traditional letter-grade courses, which is usually 6 courses at the 500 level
- At least 9 of the 18 credits must be in 500-level letter-graded courses.
- Up to 9 of the 18 credits may be in letter-graded courses in a non-chemistry focus area such as education, journalism, or business. These 9 credits taken outside the Department of Chemistry and Biochemistry must be approved by the advisory committee and the Graduate Education Committee.
- 20 of the 36 total credits must be in Chemistry (CHMY). Seminar, research, and professional paper credits at the 500- and 600-level and approved transfer credits can be included in this total. The Department and student's advisory committee may require more than the minimum Graduate School requirements.
- All graduate students will register for CHMY 630 every semester. Attending departmental research seminars is integral to a student's education and allows the student a chance to learn about areas of science outside of their research area. Attendance of these seminars is mandatory unless excused by the faculty member responsible for organizing the seminar. The method of grading this class is the choice of the faculty member organizing the seminar.

### Course Requirements

| Code                                   | Title                                                             | Hours |
|----------------------------------------|-------------------------------------------------------------------|-------|
| <b>Core Requirements</b>               |                                                                   |       |
| Complete all of the following courses: |                                                                   |       |
| CHMY 501                               | Teaching University Chemistry (completed the first fall semester) | 1     |

|          |                                                                                           |   |
|----------|-------------------------------------------------------------------------------------------|---|
| CHMY 630 | Seminar                                                                                   | 6 |
| CHMY 640 | Introductory Graduate Seminar (completed the first fall semester)                         | 1 |
| CHMY 650 | Graduate Chemistry Seminar (completed in the first two spring semesters, 1 each semester) | 2 |

### Physical Chemistry Requirements

|                                        |                                  |   |
|----------------------------------------|----------------------------------|---|
| Complete all of the following courses: |                                  |   |
| CHMY 420                               | Chemoinformatics                 | 3 |
| CHMY 562                               | Organic Structure and Mechanisms | 3 |
| CHMY 568                               | Organometallic Chemistry         | 3 |

|                                                                                        |  |   |
|----------------------------------------------------------------------------------------|--|---|
| <b>Electives</b>                                                                       |  |   |
| Complete 9 credits of graduate-level courses chosen in consultation with your advisor. |  | 9 |

|                                              |                             |   |
|----------------------------------------------|-----------------------------|---|
| <b>Research/Thesis</b>                       |                             |   |
| Complete 8 credits of the following courses: |                             | 8 |
| CHMY 590                                     | Research                    |   |
| CHMY 599                                     | Thesis/Professional Project |   |

|                    |  |           |
|--------------------|--|-----------|
| <b>Total Hours</b> |  | <b>36</b> |
|--------------------|--|-----------|

## Chemistry Ph.D. - Analytical Environmental Chemistry General Graduate Program Requirements

Graduate School policies and standards can be found on the Graduate School Policies page (p. 440).

The minimum GPA for any graduate program is 3.0. Individual programs may require more than a 3.0 to remain in good standing.

The minimum grade for a course to be accepted toward any master's or doctoral requirement is C. The minimum grade for a course to be accepted toward a certificate program is B-. Individual programs may require higher grades for specific courses.

## Doctor of Philosophy - Chemistry; Analytical Environmental Chemistry Concentration

- The coursework that a graduate student takes is dependent upon their research area, the degree they are pursuing, and the need to cover deficiencies as determined by the proficiency exams.
- 18 credits must be lecture-based courses, which is six courses worth 3 credits each at the 500 level; some graduate credit approved 400-level courses can be used upon recommendation of the advisory committee.
- All graduate students will register for CHMY 630 (Departmental Seminar) every semester. Attending departmental research seminars is integral to a student's education and allows the student a chance to learn about areas of science outside of their research area. Attendance of these seminars is mandatory unless excused by the faculty member responsible for organizing the seminar. The method of grading this class is the choice of the faculty member organizing the seminar.
- Students must complete 18 credits in letter-graded courses. The specific courses completed must be selected in consultation with the thesis advisor and advisory committee.

- 9 of the 18 credits must be in 500-level letter-graded Chemistry (CHMY) courses
  - 6 of these 9 Chemistry credits must be in 500-level letter-grade Chemistry courses outside the student's research specialty area as determined by the advisory committee.
- The remaining 9 of the 18 credits may be in traditional letter-graded courses within or outside the Department of Chemistry and Biochemistry when approved by the student's committee.
- Students should plan a course of study that will allow them to complete coursework in their first four semesters of residence. Students will typically complete two graduate courses in each of their first two semesters in residence and at least one graduate course in each of the following two semesters.

## Course Requirements

| Code                                                                                   | Title                                                                                     | Hours     |
|----------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------------|-----------|
| <b>Core Requirements</b>                                                               |                                                                                           |           |
| Complete all of the following courses:                                                 |                                                                                           |           |
| CHMY 501                                                                               | Teaching University Chemistry (completed the first fall semester)                         | 1         |
| CHMY 630                                                                               | Seminar                                                                                   | 10        |
| CHMY 640                                                                               | Introductory Graduate Seminar (completed the first fall semester)                         | 1         |
| CHMY 650                                                                               | Graduate Chemistry Seminar (completed in the first two spring semesters, 1 each semester) | 2         |
| CHMY 652                                                                               | Original Research Proposal <sup>1</sup>                                                   | 1         |
| <b>Analytic/Environmental Chemistry Requirements</b>                                   |                                                                                           |           |
| Complete all of the following courses:                                                 |                                                                                           |           |
| CHMY 442                                                                               | Aquatic Chemistry                                                                         | 3         |
| CHMY 541                                                                               | Environmental Chemistry                                                                   | 3         |
| CHMY 543                                                                               | Mass Spectrometry                                                                         | 3         |
| <b>Electives</b>                                                                       |                                                                                           |           |
| Complete 9 credits of graduate-level courses chosen in consultation with your advisor. |                                                                                           | 9         |
| <b>Research/Dissertation</b>                                                           |                                                                                           |           |
| Complete 27 credits of the following courses:                                          |                                                                                           | 27        |
| CHMY 690                                                                               | Research                                                                                  |           |
| CHMY 699                                                                               | Dissertation                                                                              |           |
| <b>Total Hours</b>                                                                     |                                                                                           | <b>60</b> |

<sup>1</sup> Completed fall semester following completion of 2 credits in CHMY 650

# Chemistry Ph.D. - Inorganic Chemistry

## General Graduate Program Requirements

Graduate School policies and standards can be found on the Graduate School Policies page (p. 440).

The minimum GPA for any graduate program is 3.0. Individual programs may require more than a 3.0 to remain in good standing.

The minimum grade for a course to be accepted toward any master's or doctoral requirement is C. The minimum grade for a course to be

accepted toward a certificate program is B-. Individual programs may require higher grades for specific courses.

## Doctor of Philosophy - Chemistry; Inorganic Chemistry Concentration

- The coursework that a graduate student takes is dependent upon their research area, the degree they are pursuing, and the need to cover deficiencies as determined by the proficiency exams.
- 18 credits must be lecture-based courses, which is six courses worth 3 credits each at the 500 level; some graduate credit approved 400-level courses can be used upon recommendation of the advisory committee.
- All graduate students will register for CHMY 630 (Departmental Seminar) every semester. Attending departmental research seminars is integral to a student's education and allows the student a chance to learn about areas of science outside of their research area. Attendance of these seminars is mandatory unless excused by the faculty member responsible for organizing the seminar. The method of grading this class is the choice of the faculty member organizing the seminar.
- Students must complete 18 credits in letter-graded courses. The specific courses completed must be selected in consultation with the thesis advisor and advisory committee.
- 9 of the 18 credits must be in 500-level letter-graded Chemistry (CHMY) courses
  - 6 of these 9 Chemistry credits must be in 500-level letter-grade Chemistry courses outside the student's research specialty area as determined by the advisory committee.
- The remaining 9 of the 18 credits may be in traditional letter-graded courses within or outside the Department of Chemistry and Biochemistry when approved by the student's committee.
- Students should plan a course of study that will allow them to complete coursework in their first four semesters of residence. Students will typically complete two graduate courses in each of their first two semesters in residence and at least one graduate course in each of the following two semesters.

## Course Requirements

| Code                                                                                    | Title                                                                                     | Hours |
|-----------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------------|-------|
| <b>Core Requirements</b>                                                                |                                                                                           |       |
| Complete all of the following courses:                                                  |                                                                                           |       |
| CHMY 501                                                                                | Teaching University Chemistry (completed the first fall semester)                         | 1     |
| CHMY 630                                                                                | Seminar                                                                                   | 10    |
| CHMY 640                                                                                | Introductory Graduate Seminar (completed the first fall semester)                         | 1     |
| CHMY 650                                                                                | Graduate Chemistry Seminar (completed in the first two spring semesters, 1 each semester) | 2     |
| CHMY 652                                                                                | Original Research Proposal <sup>1</sup>                                                   | 1     |
| <b>Inorganic Chemistry Requirements</b>                                                 |                                                                                           |       |
| Complete all of the following courses:                                                  |                                                                                           |       |
| CHMY 568                                                                                | Organometallic Chemistry                                                                  | 3     |
| CHMY 591                                                                                | Special Topics (Bioinorganic Chemistry )                                                  | 3     |
| <b>Electives</b>                                                                        |                                                                                           |       |
| Complete 12 credits of graduate-level courses chosen in consultation with your advisor. |                                                                                           | 12    |



**Research/Dissertation**

Complete 27 credits of the following courses: 27

|          |              |
|----------|--------------|
| CHMY 690 | Research     |
| CHMY 699 | Dissertation |

**Total Hours** 60<sup>1</sup> Completed fall semester following completion of 2 credits in CHMY 650

## Chemistry Ph.D. - Organic Chemistry

### General Graduate Program Requirements

Graduate School policies and standards can be found on the Graduate School Policies page (p. 440).

The minimum GPA for any graduate program is 3.0. Individual programs may require more than a 3.0 to remain in good standing.

The minimum grade for a course to be accepted toward any master's or doctoral requirement is C. The minimum grade for a course to be accepted toward a certificate program is B-. Individual programs may require higher grades for specific courses.

## Doctor of Philosophy - Chemistry; Organic Chemistry Concentration

- The coursework that a graduate student takes is dependent upon their research area, the degree they are pursuing, and the need to cover deficiencies as determined by the proficiency exams.
- 18 credits must be lecture-based courses, which is six courses worth 3 credits each at the 500 level; some graduate credit approved 400-level courses can be used upon recommendation of the advisory committee.
- All graduate students will register for CHMY 630 (Departmental Seminar) every semester. Attending departmental research seminars is integral to a student's education and allows the student a chance to learn about areas of science outside of their research area. Attendance of these seminars is mandatory unless excused by the faculty member responsible for organizing the seminar. The method of grading this class is the choice of the faculty member organizing the seminar.
- Students must complete 18 credits in letter-graded courses. The specific courses completed must be selected in consultation with the thesis advisor and advisory committee.
- 9 of the 18 credits must be in 500-level letter-graded Chemistry (CHMY) courses
  - 6 of these 9 Chemistry credits must be in 500-level letter-grade Chemistry courses outside the student's research specialty area as determined by the advisory committee.
- The remaining 9 of the 18 credits may be in traditional letter-graded courses within or outside the Department of Chemistry and Biochemistry when approved by the student's committee.
- Students should plan a course of study that will allow them to complete coursework in their first four semesters of residence. Students will typically complete two graduate courses in each of their first two semesters in residence and at least one graduate course in each of the following two semesters.

**Course Requirements**

| Code | Title | Hours |
|------|-------|-------|
|------|-------|-------|

**Core Requirements**

Complete all of the following courses:

|          |                                                                                           |    |
|----------|-------------------------------------------------------------------------------------------|----|
| CHMY 501 | Teaching University Chemistry (completed the first fall semester)                         | 1  |
| CHMY 630 | Seminar                                                                                   | 10 |
| CHMY 640 | Introductory Graduate Seminar (completed the first fall semester)                         | 1  |
| CHMY 650 | Graduate Chemistry Seminar (completed in the first two spring semesters, 1 each semester) | 2  |
| CHMY 652 | Original Research Proposal <sup>1</sup>                                                   | 1  |

**Organic Chemistry Requirements**

Complete all of the following courses:

|          |                                  |   |
|----------|----------------------------------|---|
| CHMY 420 | Chemoinformatics                 | 3 |
| CHMY 465 | Organic Spectroscopy             | 3 |
| CHMY 562 | Organic Structure and Mechanisms | 3 |

**Electives**

|                                                                                        |   |
|----------------------------------------------------------------------------------------|---|
| Complete 9 credits of graduate-level courses chosen in consultation with your advisor. | 9 |
|----------------------------------------------------------------------------------------|---|

**Research/Dissertation**

Complete 27 credits of the following courses: 27

|          |              |
|----------|--------------|
| CHMY 690 | Research     |
| CHMY 699 | Dissertation |

**Total Hours** 60<sup>1</sup> Completed fall semester following completion of 2 credits in CHMY 650

## Chemistry Ph.D. - Physical Chemistry

### General Graduate Program Requirements

Graduate School policies and standards can be found on the Graduate School Policies page (p. 440).

The minimum GPA for any graduate program is 3.0. Individual programs may require more than a 3.0 to remain in good standing.

The minimum grade for a course to be accepted toward any master's or doctoral requirement is C. The minimum grade for a course to be accepted toward a certificate program is B-. Individual programs may require higher grades for specific courses.

## Doctor of Philosophy - Chemistry; Physical Chemistry Concentration

- The coursework that a graduate student takes is dependent upon their research area, the degree they are pursuing, and the need to cover deficiencies as determined by the proficiency exams.
- 18 credits must be lecture-based courses, which is six courses worth 3 credits each at the 500 level; some graduate credit approved 400-level courses can be used upon recommendation of the advisory committee.
- All graduate students will register for CHMY 630 (Departmental Seminar) every semester. Attending departmental research seminars is integral to a student's education and allows the student a chance to learn about areas of science outside of their research area.

Attendance of these seminars is mandatory unless excused by the faculty member responsible for organizing the seminar. The method of grading this class is the choice of the faculty member organizing the seminar.

- Students must complete 18 credits in letter-graded courses. The specific courses completed must be selected in consultation with the thesis advisor and advisory committee.
- 9 of the 18 credits must be in 500-level letter-graded Chemistry (CHMY) courses
  - 6 of these 9 Chemistry credits must be in 500-level letter-grade Chemistry courses outside the student's research specialty area as determined by the advisory committee.
- The remaining 9 of the 18 credits may be in traditional letter-graded courses within or outside the Department of Chemistry and Biochemistry when approved by the student's committee.
- Students should plan a course of study that will allow them to complete coursework in their first four semesters of residence. Students will typically complete two graduate courses in each of their first two semesters in residence and at least one graduate course in each of the following two semesters.

## Course Requirements

| Code                                                                                   | Title                                                                                     | Hours     |
|----------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------------|-----------|
| <b>Core Requirements</b>                                                               |                                                                                           |           |
| Complete all of the following courses:                                                 |                                                                                           |           |
| CHMY 501                                                                               | Teaching University Chemistry (completed the first fall semester)                         | 1         |
| CHMY 630                                                                               | Seminar                                                                                   | 10        |
| CHMY 640                                                                               | Introductory Graduate Seminar (completed the first fall semester)                         | 1         |
| CHMY 650                                                                               | Graduate Chemistry Seminar (completed in the first two spring semesters, 1 each semester) | 2         |
| CHMY 652                                                                               | Original Research Proposal <sup>1</sup>                                                   | 1         |
| <b>Physical Chemistry Requirements</b>                                                 |                                                                                           |           |
| Complete all of the following courses:                                                 |                                                                                           |           |
| CHMY 420                                                                               | Chemoinformatics                                                                          | 3         |
| CHMY 562                                                                               | Organic Structure and Mechanisms                                                          | 3         |
| CHMY 568                                                                               | Organometallic Chemistry                                                                  | 3         |
| <b>Electives</b>                                                                       |                                                                                           |           |
| Complete 9 credits of graduate-level courses chosen in consultation with your advisor. |                                                                                           | 9         |
| <b>Research/Dissertation</b>                                                           |                                                                                           |           |
| Complete 27 credits of the following courses:                                          |                                                                                           | 27        |
| CHMY 690                                                                               | Research                                                                                  |           |
| CHMY 699                                                                               | Dissertation                                                                              |           |
| <b>Total Hours</b>                                                                     |                                                                                           | <b>60</b> |

<sup>1</sup> Completed fall semester following completion of 2 credits in CHMY 650

## Computer Science

- Computer Science M.S. (p. 552)
- Computer Science Ph.D. (p. 553)

## Computer Science M.S.

### General Graduate Program Requirements

Graduate School policies and standards can be found on the Graduate School Policies page (p. 440).

The minimum GPA for any graduate program is 3.0. Individual programs may require more than a 3.0 to remain in good standing.

The minimum grade for a course to be accepted toward any master's or doctoral requirement is C. The minimum grade for a course to be accepted toward a certificate program is B-. Individual programs may require higher grades for specific courses.

### Master of Science - Computer Science Requirements

- Once fully admitted to the program, students have three options to complete the degree: thesis, project, or portfolio. Each option the satisfactory completion of 24 to 30 credits of graduate-level Computer Science (CSCI) courses. See specific requirements for each option below.
- As many as 6 credits for the thesis option and 9 credits for project or portfolio options may be taken from other related departments if a petition for acceptance is approved by the faculty.
- 3 credits of independent study may be counted towards a degree without approval by faculty. More than 3 credits of independent study requires approval via petition.
- A GPA of 3.0 or greater with no individual grade below a C must be maintained each semester.
- Only 6 credits may be retaken.
- All degree requirements for the degree, including the use of transfer and non-degree credits, must be completed within five years.

### Thesis, Project, or Portfolio Options

When choosing whether to complete a thesis, project, or portfolio as part of the degree requirements, students should carefully consider the differences between them. The following document helps explain the difference between the thesis and the portfolio as well as the process students should follow: Guidelines for MS Thesis and Project Work ([https://www.umd.edu/computer-science/documents/thesis\\_guidelines.pdf](https://www.umd.edu/computer-science/documents/thesis_guidelines.pdf)). In addition, a student may opt to complete an e-portfolio rather than a thesis or project.

#### Thesis Option - 30 credits

- Satisfactory completion of at least 24 credits of graduate-level Computer Science (CSCI) courses. These will be 500-level, except for some 400-level courses with no 500-level equivalent. 400-level courses that are approved for graduate credit have "Level: Undergraduate-Graduate" in their course descriptions.
- Satisfactory completion of at least 6 additional credits of thesis/project (CSCI 599).
- Satisfactory presentation and defense of a formal thesis to the student's graduate committee.
- Students working towards a thesis must submit a proposed plan of research to the faculty no less than one semester before graduation. The length and scope of this proposal must be agreed upon with the student's primary thesis advisor.

### Project Option - 36 credits

- Satisfactory completion of at least 30 credits of graduate-level Computer Science (CSCI) courses. These will be 500-level, except for some 400-level courses with no 500-level equivalent. 400-level courses that are approved for graduate credit have "Level: Undergraduate-Graduate" in their course descriptions.
- Satisfactory completion of at least 6 additional credits of thesis/project (CSCI 599).
- Satisfactory completion of a substantial software development project, a professional paper on that project, and a presentation of a formal defense of the project to the student's graduate committee.
- Students working towards a project must submit a proposed plan of research to the faculty no less than one semester before graduation. The length and scope of this proposal must be agreed upon with the student's primary project advisor.

### Portfolio Option - 36 credits

- Satisfactory completion of at least 36 credits of graduate-level Computer Science (CSCI) courses of which at least 18 credits must be 500 level. These will be 500-level, except for some 400-level courses with no 500-level equivalent. 400-level courses that are approved for graduate credit have "Level: Undergraduate-Graduate" in their course descriptions.
- Satisfactory completion and presentation of an e-portfolio highlighting at least five examples of the student's best course work. The portfolio must be presented and defended in a manner consistent with UM graduate school standards for Master's defenses or projects.
- A detailed description of the e-portfolio requirements, including prerequisites, the necessary components of the e-portfolio, and how to present the final product can be found on the Portfolio option requirements ([https://hs.umont.edu/cs/documents/portfolio\\_requirements.pdf](https://hs.umont.edu/cs/documents/portfolio_requirements.pdf)) website.

### Master's Proposal

All non-portfolio master's degree candidates must complete a proposal. This proposal should be done at least 9 months before the expected date of graduation. The proposal shall be completed in consultation with the candidate's adviser. The proposal must contain the following:

- A clear statement of the objective. Often, this is stated as a hypothesis, but in some cases, projects in particular, it may take the form of an objective with design criteria and constraints.
- A short review of prior or related work which includes at least three citations in the appropriate literature.
- A timeline for degree completion that includes a set of milestones leading to completion of the thesis or project.
- Identification of deliverables. Most often, this is a peer reviewed paper, but could also be a software product.

Each of the above bullet points should be addressed with at most two paragraphs. Once the candidate's adviser approves the contents of the proposal, it should be sent to all faculty via e-mail. The proposal is distributed to help the candidate identify potential committee members and not to allow faculty to formally assess the proposal.

### Independent Study and Non-Computer Science Courses

Master's degree candidates may count as many as three non-Computer Science credits towards their master's degree course requirements. Requirements regarding the distribution of four and five hundred level courses apply to non-CS courses. Candidates may also count as many as 3 credits of independent study towards the course requirements, provided

a CS faculty member is willing to supervise. Additional independent study and non-CS coursework may be counted towards requirements, but a petition supported by the student's adviser must be submitted to the graduate program coordinator. If the petition is rejected, all CS faculty will have reviewed the petition.

## Computer Science Ph.D.

### General Graduate Program Requirements

Graduate School policies and standards can be found on the Graduate School Policies page (p. 440).

The minimum GPA for any graduate program is 3.0. Individual programs may require more than a 3.0 to remain in good standing.

The minimum grade for a course to be accepted toward any master's or doctoral requirement is C. The minimum grade for a course to be accepted toward a certificate program is B-. Individual programs may require higher grades for specific courses.

### Doctor of Philosophy - Computer Science

- All Computer Science Ph.D. students have a common set of requirements. Students must take at least 3 credits per semester and a total of 48 credits.
- Students must participate in the 1-credit CS Research Seminar course throughout their tenure on campus and must coordinate that seminar for one semester.
- The student is required to complete at least 6 course credits per semester until the required 24 course credits have been completed.
- The student must earn a B or better in the required core courses. The student must maintain a GPA of 3.0 or higher for the curriculum approved by the Advisory Committee, or the student will be placed on academic probation. The student has one semester to raise the cumulative GPA to 3.0 or higher; failure to raise the GPA to a satisfactory level will result in removal from the graduate program. Grades of less than a C do not count toward degree, but still count in the cumulative GPA.

### Course Requirements

| Code                                                                                                                                                      | Title                     | Hours     |
|-----------------------------------------------------------------------------------------------------------------------------------------------------------|---------------------------|-----------|
| <b>Core Courses - Complete all of the following courses:</b>                                                                                              |                           |           |
| CSCI 501                                                                                                                                                  | Graduate Research Methods | 3         |
| CSCI 532                                                                                                                                                  | Advanced Algorithm Topics | 3         |
| <b>Additional Requirements - Complete 18 additional credits of graduate courses meeting the following conditions:</b>                                     |                           | <b>18</b> |
| Of these, at least 12 must be CSCI courses.                                                                                                               |                           |           |
| Of these, at least 12 must be at the 500-level.                                                                                                           |                           |           |
| No more than 6 total credits of Independent Study may be applied to this requirement.                                                                     |                           |           |
| These do not include thesis, research, or seminar credits.                                                                                                |                           |           |
| Students must participate in the 1-credit CS Research Seminar course throughout their tenure on campus and must coordinate that seminar for one semester. |                           |           |
| <b>Thesis and Dissertation Credits - Complete 36 credits of thesis and dissertation:</b>                                                                  |                           | <b>36</b> |
| CSCI 599                                                                                                                                                  | Thesis/Professional Paper |           |
| <b>Total Hours</b>                                                                                                                                        |                           | <b>60</b> |

Mathematical Sciences

- Data Science M.S. (p. 554)
- Mathematics M.A. (p. 554)
- Mathematics Ph.D. (p. 555)

Data Science M.S.

General Graduate Program Requirements

Graduate School policies and standards can be found on the Graduate School Policies page (p. 440).

The minimum GPA for any graduate program is 3.0. Individual programs may require more than a 3.0 to remain in good standing.

The minimum grade for a course to be accepted toward any master’s or doctoral requirement is C. The minimum grade for a course to be accepted toward a certificate program is B-. Individual programs may require higher grades for specific courses.

Master of Science - Data Science

- At least half of the credits required for a degree (excluding a combined total of 10 credits for thesis or research) will be at the 500 or 600 level. (In no case, however, will this rule require more than 18 credits of 500- or 600-level work.) To apply this rule to the course of study, subtract the number of thesis and research credits completed (up to 10 only) from the minimum number of credits required for the degree.
- Half of the remaining credits must be in courses at the 500 or 600 level.
- The student and the student’s advisor design a program of studies for each student. Each year the student must complete (or update) an advisor-approved Program of Studies form which is to be kept on file in the Mathematics office. A revised form must be filed if there are any changes to the student’s program during the year.
- After the first year students will take a comprehensive exam on material from M 540, M 561, and M 562. It is structured in two parts, written and preliminary.

Course Requirements

| Code                                                                | Title                                              | Hours |
|---------------------------------------------------------------------|----------------------------------------------------|-------|
| Core Course Requirements                                            |                                                    |       |
| Complete all of the following courses:                              |                                                    |       |
| M 540                                                               | Numerical Methods for Computational & Data Science | 3     |
| M 561                                                               | Advanced Data Science Analytics                    | 3     |
| M 562                                                               | Advanced Theoretical Big Data Analytics            | 3     |
| M 567                                                               | Advanced Big Data Analytics Projects               | 3     |
| M 600                                                               | Mathematics Colloquium                             | 1     |
| M 610                                                               | Graduate Seminar in Applied Mathematics            | 2     |
| or STAT 640                                                         | Graduate Seminar in Probability and Statistics     |       |
| Complete one course in CSCI (see courses below)                     |                                                    | 3     |
| Additional Course Requirements                                      |                                                    |       |
| Complete additional credit requirements with the following courses: |                                                    | 4-10  |
| CSCI 444                                                            | Data Visualization                                 |       |
| CSCI 547                                                            | Machine Learning                                   |       |

|                                                                                                                                                                                          |                         |       |
|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-------------------------|-------|
| STAT 421                                                                                                                                                                                 | Probability Theory      |       |
| STAT 422                                                                                                                                                                                 | Mathematical Statistics |       |
| STAT 542                                                                                                                                                                                 | Applied Linear Models   |       |
| STAT 545                                                                                                                                                                                 | Theory of Linear Models |       |
| A minimum of 6 credits of electives drawn from courses offered by Mathematical Sciences, CSCI, and the School of Business Administration. These courses must be approved by the advisor. |                         | 6     |
| A minimum of 2 research credits is required. A final presentation on a research project must be given in the Applied Math & Statistics seminar.                                          |                         | 2     |
| Total Hours                                                                                                                                                                              |                         | 30-36 |

Mathematics M.A.

General Graduate Program Requirements

Graduate School policies and standards can be found on the Graduate School Policies page (p. 440).

The minimum GPA for any graduate program is 3.0. Individual programs may require more than a 3.0 to remain in good standing.

The minimum grade for a course to be accepted toward any master’s or doctoral requirement is C. The minimum grade for a course to be accepted toward a certificate program is B-. Individual programs may require higher grades for specific courses.

Master of Arts - Mathematics

- The Master of Arts in Mathematics program aims to provide students with a broad background in mathematics and the opportunity to concentrate on an area of special interest.
- The areas of study are Algebra, Analysis, Applied Mathematics, Combinatorics & Optimization, Mathematics Education, and Statistics.
- Candidates for admission to the Master of Arts in Mathematics degree program should have an undergraduate mathematics major.
- Students may apply up to 10-credit hours of research towards the degree. The professional presentation for the non-thesis option consists of at least 2-credit hours of research on advanced-level material, culminating in an oral presentation(s) by the student.

Course Requirements

| Code                                                                                 | Title                                              | Hours |
|--------------------------------------------------------------------------------------|----------------------------------------------------|-------|
| Complete the following course:                                                       |                                                    |       |
| M 600                                                                                | Mathematics Colloquium                             | 1     |
| Complete 2 credits of the following courses:                                         |                                                    | 2     |
| M 504                                                                                | Topics in Mathematics Education                    |       |
| M 610                                                                                | Graduate Seminar in Applied Mathematics            |       |
| M 620                                                                                | Graduate Seminar in Algebra                        |       |
| M 650                                                                                | Graduate Seminar in Analysis                       |       |
| M 680                                                                                | Graduate Seminar in Combinatorics and Optimization |       |
| Thesis or Professional Presentation Options                                          |                                                    | 27-33 |
| Thesis Option (27 credits)                                                           |                                                    |       |
| Complete 27 credits of graduate-level Mathematics (M) and Statistics (STAT) courses. |                                                    |       |
| Professional Presentation Option (33 credits)                                        |                                                    |       |



Complete the following course:

|       |          |
|-------|----------|
| M 590 | Research |
|-------|----------|

Complete 31 credits of graduate-level Mathematics (M) and Statistics (STAT) courses.

**Total Hours**

**30-36**

## Mathematics Ph.D.

### General Graduate Program Requirements

Graduate School policies and standards can be found on the Graduate School Policies page (p. 440).

The minimum GPA for any graduate program is 3.0. Individual programs may require more than a 3.0 to remain in good standing.

The minimum grade for a course to be accepted toward any master's or doctoral requirement is C. The minimum grade for a course to be accepted toward a certificate program is B-. Individual programs may require higher grades for specific courses.

### Doctor of Philosophy - Mathematics

- The regular (Option 1) Ph.D. program prepares research specialists in the mathematical sciences. The department offers research training in algebra, analysis, applied mathematics, combinatorics & optimization, computer science, and topology.
- Our non-traditional (Option 2) Ph.D. program prepares college mathematics teachers and other "general practitioners" of mathematics. It emphasizes greater breadth in course work and less specialization than in the regular program. An emphasis in mathematics education is available under this option.
- A dissertation is required.
- Students must complete preliminary examinations in two areas.
- Students must complete a comprehensive examination emphasizing their area of specialization.

### Course Requirements

| Code                                                                                  | Title                                              | Hours     |
|---------------------------------------------------------------------------------------|----------------------------------------------------|-----------|
| <b>Complete the following course:</b>                                                 |                                                    |           |
| M 600                                                                                 | Mathematics Colloquium                             | 1         |
| M 590                                                                                 | Research                                           | 3         |
| or M 699                                                                              | Dissertation                                       |           |
| <b>Complete 2 credits of the following courses in your area of research training:</b> |                                                    | <b>2</b>  |
| M 504                                                                                 | Topics in Mathematics Education                    |           |
| M 610                                                                                 | Graduate Seminar in Applied Mathematics            |           |
| M 620                                                                                 | Graduate Seminar in Algebra                        |           |
| M 650                                                                                 | Graduate Seminar in Analysis                       |           |
| M 680                                                                                 | Graduate Seminar in Combinatorics and Optimization |           |
| <b>Electives</b>                                                                      |                                                    | <b>54</b> |
| Complete 54 credits of graduate-level Mathematics (M) or Statistics (STAT) courses.   |                                                    |           |
| <b>Total Hours</b>                                                                    |                                                    | <b>60</b> |

## Alexander Blewett III School of Law Graduate Programs

- Department of Public Administration and Policy (p. 555)
  - Public Administration and Policy Graduate Certificate Programs (p. 555)
    - Law, Policy, and Public Administration Graduate Certificate (p. 555)
    - Nonprofit Administration Graduate Certificate (p. 556)
    - Poverty Policy Graduate Certificate (p. 556)
    - Public Administration Graduate Certificate (p. 557)
    - Public Policy Graduate Certificate (p. 557)
  - Public Administration and Policy Graduate Programs (p. 557)
    - Master of Public Administration (M.P.A.) (p. 558)
    - Master of Public Health and Public Administration (p. 505)

## Department of Public Administration and Policy

The University of Montana's Department of Public Administration and Policy is the first of its kind in Montana. The mission of the department is to provide a cutting edge public sector education from high-quality faculty committed to applied research and teaching. The department offers a variety of degrees at the graduate and undergraduate level, and coursework is offered online and in-person. For more information, please see the department's program catalog pages and the department's website (<https://www.umt.edu/law/mpa/academics/default.php>).

- Law, Policy, and Public Administration Graduate Certificate (p. 555)
- Master of Public Administration (M.P.A.) (p. 558)
- Nonprofit Administration Graduate Certificate (p. 556)
- Poverty Policy Graduate Certificate (p. 556)
- Public Administration Graduate Certificate (p. 557)
- Public Policy Graduate Certificate (p. 557)

## Public Administration and Policy Graduate Certificate Programs

- Law, Policy, and Public Administration Graduate Certificate (p. 555)
- Nonprofit Administration Graduate Certificate (p. 556)
- Poverty Policy Graduate Certificate (p. 556)
- Public Administration Graduate Certificate (p. 557)
- Public Policy Graduate Certificate (p. 557)

## Law, Policy, and Public Administration Graduate Certificate General Graduate Program Requirements

Graduate School policies and standards can be found on the Graduate School Policies page (p. 440).

The minimum GPA for any graduate program is 3.0. Individual programs may require more than a 3.0 to remain in good standing.



The minimum grade for a course to be accepted toward any master's or doctoral requirement is C. The minimum grade for a course to be accepted toward a certificate program is B-. Individual programs may require higher grades for specific courses.

## Online Program Option

This program may be completed in an online format (<https://catalog.umd.edu/online-programs/definitions/>). Students interested in pursuing an online degree or certificate program are strongly encouraged to contact the offering department to discuss specific program and course modalities (<https://catalog.umd.edu/online-programs/definitions/>) and create a plan of study with an academic advisor. The course requirements listed below may not be consistently offered via online delivery.

## Graduate Certificate - Law, Policy, and Public Administration

These credits can also be applied to the Master of Public Administration.

### Course Requirements

| Code                                   | Title                                | Hours     |
|----------------------------------------|--------------------------------------|-----------|
| <b>Core Courses</b>                    |                                      |           |
| Complete all of the following courses: |                                      |           |
| PUAD 504                               | Organization Theory                  | 3         |
| or PUAD 561                            | Ethics in Public Administration      |           |
| PUAD 551                               | Public Policy and the Law            | 3         |
| <b>Electives</b>                       |                                      |           |
| Complete two of the following courses: |                                      |           |
| PUAD 526                               | Issues in State Government           |           |
| PUAD 531                               | Introduction to Public Policy        |           |
| PUAD 548                               | Poverty Policy                       |           |
| LAW 595/<br>PUAD 591                   | Special Topics (Crim Justice Reform) |           |
| LAW 595                                | Special Topics (Tax Policy)          |           |
| LAW 618                                | Montana Constitutional Law           |           |
| LAW 645                                | Consumer Law                         |           |
| LAW 652                                | Advanced Legislation                 |           |
| LAW 664                                | Philosophy of Law                    |           |
| <b>Total Hours</b>                     |                                      | <b>12</b> |

## Nonprofit Administration Graduate Certificate

### General Graduate Program Requirements

Graduate School policies and standards can be found on the Graduate School Policies page (p. 440).

The minimum GPA for any graduate program is 3.0. Individual programs may require more than a 3.0 to remain in good standing.

The minimum grade for a course to be accepted toward any master's or doctoral requirement is C. The minimum grade for a course to be accepted toward a certificate program is B-. Individual programs may require higher grades for specific courses.

## Graduate Certificate - Nonprofit Administration

These credits can also be applied to the Master of Public Administration.

### Course Requirements

| Code                                          | Title                                   | Hours     |
|-----------------------------------------------|-----------------------------------------|-----------|
| <b>Core Courses:</b>                          |                                         |           |
| Complete 12 credits of the following courses: |                                         | 12        |
| NPAD 501                                      | Nonprofit Human Resource Management     |           |
| NPAD 502                                      | Nonprofit Volunteer Mgmt                |           |
| NPAD 503                                      | Nonprofit Prog Plan & Eval              |           |
| NPAD 505                                      | Nonprofit Advocacy                      |           |
| NPAD 506                                      | Nonprofit Board Leadership & Management |           |
| NPAD 510                                      | Nonprofit Strategic Plan                |           |
| NPAD 511                                      | Nonprofit Grant Writing                 |           |
| NPAD 512                                      | Nonprofit Fundraising                   |           |
| NPAD 513                                      | Nonprofit Financial Mgmt                |           |
| NPAD 560                                      | Nonprofit Marketing & Social Media      |           |
| <b>Internship</b>                             |                                         |           |
| Complete 4 credits of the following course:   |                                         |           |
| NPAD 598                                      | Internship                              | 4         |
| <b>Total Hours</b>                            |                                         | <b>16</b> |

## Poverty Policy Graduate Certificate

### General Graduate Program Requirements

Graduate School policies and standards can be found on the Graduate School Policies page (p. 440).

The minimum GPA for any graduate program is 3.0. Individual programs may require more than a 3.0 to remain in good standing.

The minimum grade for a course to be accepted toward any master's or doctoral requirement is C. The minimum grade for a course to be accepted toward a certificate program is B-. Individual programs may require higher grades for specific courses.

## Graduate Certificate - Poverty Policy

These credits can also be applied to the Master of Public Administration.

### Course Requirements

| Code                                            | Title                                   | Hours |
|-------------------------------------------------|-----------------------------------------|-------|
| <b>Core Courses</b>                             |                                         |       |
| Complete all of the following courses:          |                                         |       |
| PUAD 503                                        | Policy Analysis                         | 3     |
| PUAD 548                                        | Poverty Policy                          | 3     |
| <b>Electives</b>                                |                                         |       |
| Complete two of the following elective courses: |                                         |       |
| PUAD 505                                        | Budgeting & Finance                     |       |
| PUAD 506                                        | MPA Applied Research Methods            |       |
| PUAD 507                                        | Program Evaluation                      |       |
| PUAD 526                                        | Issues in State Government              |       |
| PUAD 529                                        | Introduction to Nonprofit Organizations |       |
| PUAD 531                                        | Introduction to Public Policy           |       |

|                    |                                                |           |
|--------------------|------------------------------------------------|-----------|
| HSTA 577           | Law, Capitalism, and Democracy in U.S. History |           |
| PUBH 570           | Ethical Issues in Public Health                |           |
| SOCI 561           | Qualitative Methods                            |           |
| S W 530            | History of Social Policy                       |           |
| S W 531            | Social Policy Analysis                         |           |
| <b>Total Hours</b> |                                                | <b>12</b> |

## Public Administration Graduate Certificate

### General Graduate Program Requirements

Graduate School policies and standards can be found on the Graduate School Policies page (p. 440).

The minimum GPA for any graduate program is 3.0. Individual programs may require more than a 3.0 to remain in good standing.

The minimum grade for a course to be accepted toward any master's or doctoral requirement is C. The minimum grade for a course to be accepted toward a certificate program is B-. Individual programs may require higher grades for specific courses.

### Online Program Option

This program may be completed in an online format (<https://catalog.umn.edu/online-programs/definitions/>). Students interested in pursuing an online degree or certificate program are strongly encouraged to contact the offering department to discuss specific program and course modalities (<https://catalog.umn.edu/online-programs/definitions/>) and create a plan of study with an academic advisor. The course requirements listed below may not be consistently offered via online delivery.

## Graduate Certificate - Public Administration

These credits can also be applied to the Master of Public Administration degree.

### Course Requirements

| Code                                   | Title                           | Hours     |
|----------------------------------------|---------------------------------|-----------|
| <b>Core Courses</b>                    |                                 |           |
| Complete all of the following courses: |                                 |           |
| PUAD 501                               | Public Administration           | 3         |
| PUAD 561                               | Ethics in Public Administration | 3         |
| <b>Electives</b>                       |                                 |           |
| Complete two of the following courses: |                                 | 6         |
| PUAD 504                               | Organization Theory             |           |
| PUAD 505                               | Budgeting & Finance             |           |
| PUAD 507                               | Program Evaluation              |           |
| PUAD 522                               | Human Resource Management       |           |
| PUAD 550                               | Innovation in the Public Sector |           |
| <b>Total Hours</b>                     |                                 | <b>12</b> |

## Public Policy Graduate Certificate

### General Graduate Program Requirements

Graduate School policies and standards can be found on the Graduate School Policies page (p. 440).

The minimum GPA for any graduate program is 3.0. Individual programs may require more than a 3.0 to remain in good standing.

The minimum grade for a course to be accepted toward any master's or doctoral requirement is C. The minimum grade for a course to be accepted toward a certificate program is B-. Individual programs may require higher grades for specific courses.

### Online Program Option

This program may be completed in an online format (<https://catalog.umn.edu/online-programs/definitions/>). Students interested in pursuing an online degree or certificate program are strongly encouraged to contact the offering department to discuss specific program and course modalities (<https://catalog.umn.edu/online-programs/definitions/>) and create a plan of study with an academic advisor. The course requirements listed below may not be consistently offered via online delivery.

## Graduate Certificate - Public Policy

These credits can also be applied to the Master of Public Administration degree.

### Course Requirements

| Code                                   | Title                                    | Hours     |
|----------------------------------------|------------------------------------------|-----------|
| <b>Core Courses</b>                    |                                          |           |
| Complete all of the following courses: |                                          |           |
| PUAD 503                               | Policy Analysis                          | 3         |
| PUAD 531                               | Introduction to Public Policy            | 3         |
| <b>Electives</b>                       |                                          |           |
| Complete two of the following courses: |                                          | 6         |
| PUAD 523                               | Administrative Law                       |           |
| PUAD 526                               | Issues in State Government               |           |
| PUAD 528                               | Women, Policy, and Public Administration |           |
| PUAD 547                               | Legislation                              |           |
| PUAD 548                               | Poverty Policy                           |           |
| PUAD 551                               | Public Policy and the Law                |           |
| <b>Total Hours</b>                     |                                          | <b>12</b> |

## Public Administration and Policy Graduate Programs

- Master of Public Administration (M.P.A.) (p. 558)
- Master of Public Health and Public Administration (p. 505)

# Master of Public Administration (M.P.A.)

## General Graduate Program Requirements

Graduate School policies and standards can be found on the Graduate School Policies page (p. 440).

The minimum GPA for any graduate program is 3.0. Individual programs may require more than a 3.0 to remain in good standing.

The minimum grade for a course to be accepted toward any master's or doctoral requirement is C. The minimum grade for a course to be accepted toward a certificate program is B-. Individual programs may require higher grades for specific courses.

## Online Program Option

This program may be completed in an online format (<https://catalog.umd.edu/online-programs/definitions/>). Students interested in pursuing an online degree or certificate program are strongly encouraged to contact the offering department to discuss specific program and course modalities (<https://catalog.umd.edu/online-programs/definitions/>) and create a plan of study with an academic advisor. The course requirements listed below may not be consistently offered via online delivery.

# Master of Public Administration (M.P.A.)

- The M.P.A. degree requires the completion of 36 credits of coursework.
- In their final semester of the MPA program, students are required to complete a portfolio project, which includes both written and oral components, along with an exit interview

## Course Requirements

| Code                                               | Title                        | Hours |
|----------------------------------------------------|------------------------------|-------|
| Complete all of the following courses:             |                              |       |
| PUAD 501                                           | Public Administration        | 3     |
| PUAD 503                                           | Policy Analysis              | 3     |
| PUAD 504                                           | Organization Theory          | 3     |
| PUAD 505                                           | Budgeting & Finance          | 3     |
| PUAD 506                                           | MPA Applied Research Methods | 3     |
| PUAD 522                                           | Human Resource Management    | 3     |
| Complete 18 hours of elective courses <sup>1</sup> |                              | 18    |
| Total Hours                                        |                              | 36    |

<sup>1</sup> For elective course options, see the department website (<https://www.umd.edu/law/mpa/academics/mpa/mpa-course-offerings.php>).

# Master of Public Health and Public Administration

The School of Public and Community Health Sciences and the Department of Public Administration and Policy offer an online 42 credit Master of Public Health and Public Administration (MPAPH).

This degree will allow students to complete core classes in their respective discipline (Public Administration or Public Health) required for national accreditation competencies while specializing in public

administration/nonprofit or health. Students that graduate with the Master of Public Health and Public Administration will be prepared for leadership roles within government agencies, community healthcare settings, and non-profit organizations.

## General Graduate Program Requirements

Graduate School policies and standards can be found on the Graduate School Policies page (p. 440).

The minimum GPA for any graduate program is 3.0. Individual programs may require more than a 3.0 to remain in good standing.

The minimum grade for a course to be accepted toward any master's or doctoral requirement is C. The minimum grade for a course to be accepted toward a certificate program is B-. Individual programs may require higher grades for specific courses.

## Online Program Option

This program may be completed in an online format (<https://catalog.umd.edu/online-programs/definitions/>). Students interested in pursuing an online degree or certificate program are strongly encouraged to contact the offering department to discuss specific program and course modalities (<https://catalog.umd.edu/online-programs/definitions/>) and create a plan of study with an academic advisor. The course requirements listed below may not be consistently offered via online delivery.

# Master of Public Health and Public Administration

## Required Courses

Students must complete 21 credits in Public Health and 21 credits in Public Administration.

| Code                                   | Title                                        | Hours                           |
|----------------------------------------|----------------------------------------------|---------------------------------|
| Public Health                          |                                              |                                 |
| Complete all of the following courses: |                                              |                                 |
| PUBH 510                               | Intro to Epidemiology                        | 3                               |
| PUBH 520                               | Fundamentals of Biostatistics                | 3                               |
| PUBH 540                               | Social & Behavioral Science in Public Health | 3                               |
| PUBH 560                               | Environmental & Rural Health                 | 3                               |
| PUBH 595                               | Practicum                                    | 3                               |
| PUBH 599                               | Professional Paper/ILE                       | 3                               |
| Public Administration                  |                                              |                                 |
| Complete all of the following courses: |                                              |                                 |
| PUAD 501                               | Public Administration                        | 3                               |
| PUAD 503                               | Policy Analysis                              | 3                               |
| PUAD 504                               | Organization Theory                          | 3                               |
| PUAD 505                               | Budgeting & Finance                          | 3                               |
| PUAD 506                               | MPA Applied Research Methods                 | 3                               |
| PUAD 522                               | Human Resource Management                    | 3                               |
| Ethics                                 |                                              |                                 |
| Complete one of the following courses: |                                              |                                 |
| PUAD 561                               | Ethics in Public Administration              | 3                               |
|                                        | or PUBH 570                                  | Ethical Issues in Public Health |
| Additional Course                      |                                              |                                 |

Depending on the Ethics course chosen, complete an additional 3-credit class in the other area of study. For example, if PUAD 561 is completed, then the student must choose a PUBH course. Students must have 21 credits from each area.

3

**Total Hours****42**

## Interdisciplinary Graduate Programs

- Interdisciplinary Studies M.A. (p. 559)
- Interdisciplinary Studies M.S. (p. 559)
- Interdisciplinary Studies Ph.D. (p. 560)

## Interdisciplinary Studies M.A.

### General Graduate Program Requirements

Graduate School policies and standards can be found on the Graduate School Policies page (p. 440).

The minimum GPA for any graduate program is 3.0. Individual programs may require more than a 3.0 to remain in good standing.

The minimum grade for a course to be accepted toward any master's or doctoral requirement is C. The minimum grade for a course to be accepted toward a certificate program is B-. Individual programs may require higher grades for specific courses.

## Master of Arts - Interdisciplinary Studies

The Interdisciplinary Master of Arts program has a unique application process, which prospective students are encouraged to read closely.

The M.A./M.S. program website (<https://www.umt.edu/grad/explore/interdisciplinary-graduate-programs/prospective-students/mis.php>) lays out the application process, the structure of the coursework, and the committee membership that each candidate proposes as part of their application process. Each applicant must submit a plan of study, created in consultation with prospective committee members.

Students must choose from the following options:

### 30 Credit Thesis Option

- Students must complete 30 credits of graduate-level coursework chosen in consultation with their advisor; students must do the graduate increment of any 400-level classes.
- Students will complete a thesis proposal (format to be determined by the student's graduate committee) approximately one year after beginning the program.
- Students must satisfactorily complete an oral defense of the thesis.

### 36 Credit Non-Thesis Option

- Students must complete 36 credits of graduate-level coursework chosen in consultation with their advisor; students must do the graduate increment of any 400-level classes..
- Students must satisfactorily complete:
  1. A comprehensive exam, format to be determined by the student's graduate committee; **and**
  2. One of three options:

- a. A professional paper – a publishable quality paper, which shall consists of an article-length, monographic study based substantially on primary sources.
- b. Three short critical papers or products that show creative work – merit to be judged by your graduate committee.
- c. A paper submitted to a nationally recognized journal.

## Interdisciplinary Studies M.S.

### General Graduate Program Requirements

Graduate School policies and standards can be found on the Graduate School Policies page (p. 440).

The minimum GPA for any graduate program is 3.0. Individual programs may require more than a 3.0 to remain in good standing.

The minimum grade for a course to be accepted toward any master's or doctoral requirement is C. The minimum grade for a course to be accepted toward a certificate program is B-. Individual programs may require higher grades for specific courses.

## Master of Science - Interdisciplinary Studies

The Interdisciplinary Master of Science program has a unique application process, which prospective students are encouraged to read closely.

The M.A./M.S. program website (<https://www.umt.edu/grad/explore/interdisciplinary-graduate-programs/prospective-students/mis.php>) lays out the application process, the structure of the coursework, and the committee membership that each candidate proposes as part of their application process. Each applicant must submit a plan of study, created in consultation with prospective committee members.

Students must choose from the following options:

### 30 Credit Thesis Option

- Students must complete 30 credits of graduate-level coursework chosen in consultation with their advisor; students must do the graduate increment of any 400-level classes.
- Students will complete a thesis proposal (format to be determined by the student's graduate committee) approximately one year after beginning the program.
- Students must satisfactorily complete an oral defense of the thesis.

### 36 Credit Non-Thesis Option

- Students must complete 36 credits of graduate-level coursework chosen in consultation with their advisor; students must do the graduate increment of any 400-level classes..
- Students must satisfactorily complete:
  - A comprehensive exam, format to be determined by the student's graduate committee; **and**
  - One of three options:
    - a. A professional paper – a publishable quality paper, which shall consists of an article-length, monographic study based substantially on primary sources.
    - b. Three short critical papers or products that show creative work – merit to be judged by your graduate committee.
    - c. A paper submitted to a nationally recognized journal.

# Interdisciplinary Studies Ph.D.

## General Graduate Program Requirements

Graduate School policies and standards can be found on the Graduate School Policies page (p. 440).

The minimum GPA for any graduate program is 3.0. Individual programs may require more than a 3.0 to remain in good standing.

The minimum grade for a course to be accepted toward any master’s or doctoral requirement is C. The minimum grade for a course to be accepted toward a certificate program is B-. Individual programs may require higher grades for specific courses.

## Doctor of Philosophy - Interdisciplinary Studies

- The Ph.D. in Interdisciplinary Studies is not focused on combining disciplines as are the masters programs in Interdisciplinary studies, but in allowing the student to bring forward a problem or series of problems to research.
- This degree has a different application process than other degrees at the university. Prospective students must schedule an appointment with the Director or Coordinator of the Interdisciplinary Graduate Programs before beginning the application process.
- The student must seek out faculty with the resources and expertise to assist them in defining and executing the research goals and designing a curriculum to acquire the skills and competencies needed to reach those goals.
- The Ph.D. in Interdisciplinary Studies requires a student who is highly motivated, has a focused goal/research project in mind, and is able to actively participate in his or her educational process.
- Prospective students should read the thorough description of the program on the Doctoral Interdisciplinary Studies website (<https://www.umt.edu/grad/explore/interdisciplinary-graduate-programs/prospective-students/dis.php>).

## Coursework

- To graduate, a student needs at least 45 credits beyond the master’s degree. Credits may include regular graduate-level courses, independent study, internships, and seminars. In fulfilling that credit requirement, students must take:
  - At least 10 credits of dissertation research.
  - At least 18 credits at the 500 or 600 level.
  - At least 2 credits of D.I.S. Seminar (when offered; students can substitute a department seminar in consultation with their advisors); seminars may not be taken in the same semester.
  - At least 2 credits of seminars offered by any graduate program on the UM – Missoula Campus; seminars may not be taken in the same semester.

## Dissertation Proposal

Students must submit a formal dissertation proposal to their committee in their second year in the program or on a mutually agreed upon timeframe upon admission. This proposal should be approved by the doctoral committee prior to the student’s advancing to the comprehensive exam.

## Comprehensive Exam

Students must pass a comprehensive exam. The exam generally includes a written and oral portion, although the specific format will be determined by the student’s graduate committee and agreed upon prior to admission to the program.

## Dissertation and Oral Defense

In line with Graduate School policy for all doctorates (D5.0000: Dissertation Defense), students must submit and receive formal approval of their doctoral dissertation and must pass an oral defense of their dissertation prior to receiving their degree.

## Interdisciplinary Graduate Certificates

- International Development Studies Graduate Certificate (p. 560)

## International Development Studies Graduate Certificate

### General Graduate Program Requirements

Graduate School policies and standards can be found on the Graduate School Policies page (p. 440).

The minimum GPA for any graduate program is 3.0. Individual programs may require more than a 3.0 to remain in good standing.

The minimum grade for a course to be accepted toward any master’s or doctoral requirement is C. The minimum grade for a course to be accepted toward a certificate program is B-. Individual programs may require higher grades for specific courses.

## Graduate Certificate - International Development Studies

- At least half of the credits must be numbered 500 or above.

## Course Requirements

| Code                                   | Title                                                            | Hours |
|----------------------------------------|------------------------------------------------------------------|-------|
| <b>Core Courses</b>                    |                                                                  |       |
| Complete two of the following courses: |                                                                  | 6     |
| ENST 514                               | Social Issues:The Mekong Delta                                   |       |
| ENST 580                               | The Politics of Food                                             |       |
| ENST 589                               | Environmental Justice Issues and Solutions                       |       |
| IDS 491                                | Special Topics                                                   |       |
| IDS 591                                | Special Topics                                                   |       |
| NRSM 570                               | Political Ecology                                                |       |
| NRSM 575                               | Environment & International Development                          |       |
| PSCI 463                               | Development Administration                                       |       |
| PSCI 521                               | Globalization                                                    |       |
| PSCI 582                               | Politics of the World Economy                                    |       |
| PTRM 528                               | Tourism & Protected Area Management: Striving for Sustainability |       |
| PTRM 584                               | Sustainable Protected Area Management and Tourism                |       |

### Content Courses



|                                        |                                                                                |           |
|----------------------------------------|--------------------------------------------------------------------------------|-----------|
| Complete two of the following courses: |                                                                                | 6         |
| ANTY 520                               | Seminar in Contemporary Ethnography                                            |           |
| BMGT 685                               | International Business                                                         |           |
| COMX 415                               | Intercultural Communication                                                    |           |
| COUN 575                               | Multicultural Counseling                                                       |           |
| ECNS 431                               | International Trade                                                            |           |
| ECNS 445                               | Introduction to Environmental Economics & Climate Change                       |           |
| ECNS 450                               | Economics of Global Development                                                |           |
| ENST 516                               | Climate Change: Mekong Delta                                                   |           |
| HSTR 435                               | Latin American Human Rights & Memory                                           |           |
| NRSM 571                               | International Conservation & Development                                       |           |
| PHL 523                                | Science and the Environment                                                    |           |
| PSCI 431                               | Politics of Global Migration                                                   |           |
| PSCI 428                               | Climate Policies: China & U.S.                                                 |           |
| PSCI 524                               | Management and Policy Skills                                                   |           |
| PTRM 527                               | Global Ecology, Conservation & Natural Resource Management in a Changing World |           |
| PUBH 560                               | Environmental & Rural Health                                                   |           |
| S W 465                                | Social Work Global Context                                                     |           |
| <b>Total Hours</b>                     |                                                                                | <b>12</b> |

# ALEXANDER BLEWETT III SCHOOL OF LAW

Elaine Gagliardi, Dean

The Law School is accredited by the American Bar Association and the Association of American Law Schools, and offers the degree of Juris Doctor (J.D.). Prerequisites for admission to the Law School are a baccalaureate degree and Law School Admission Test.

For detailed information concerning the Law School's admission criteria, application procedures, facilities, and official course descriptions, consult the Law School website (<http://www.umn.edu/law/>).

The Law School's administrative regulations are contained in the Law School Student Handbook, which is on the website (<http://www.umn.edu/law/>). The Law School conforms in most instances to the calendar established for the entire University. There are some differences, however, because the Law School operates on a longer semester system than the rest of the University. The Law School academic calendar may also be found on the Law School website (<http://www.umn.edu/law/>).

- Juris Doctor (p. 562)
- American Indian Law Certificate (p. 562)
- Natural Resources and Environmental Law Certificate (p. 562)

## Juris Doctor

## Juris Doctor

## Requirements

- Students completing the Juris Doctor without a Certificate require 90 credits.
- Students completing the Juris Doctor with a Certificate require 95 credits.
- Students must complete a course that fulfills the Advanced Writing Requirement (AWR).
- Students must complete a course that fulfills the Oral Argument Requirement (OAR).
- Student must complete a minimum of 4 clinic credits.
- See the Law School website (<http://www.umn.edu/law/>) for specific course requirements and additional information about the Juris Doctor degree.

## American Indian Law Certificate

The Certificate Program is designed for law students who wish to acquire an in-depth knowledge of American Indian law and who are willing to commit the time and effort necessary to achieve a level of specialization in their legal education. The Certificate Program provides students the opportunity to graduate from law school with a credential recognizing their concentration and accomplishment in this field.

## Certificate - American Indian Law Requirements

- Because we believe specialization in law school should not come at the expense of a well-rounded legal education, we require students in the Certificate Program to complete 95 hours compared to 90 credit hours for students outside the Certificate Program. In most cases, this additional credit load can be completed within the normal three academic years of law school.
- Students completing the Certificate Program must earn a total of 95 credits.
- Successfully complete the advanced writing requirement in an area addressing an environmental or natural resources topic. To assure that a Third-Year Writing Assignment satisfies this requirement, the student must receive approval of the proposal by the Associate Dean's designate. The Associate Dean's designate is to review the writing topic and the final writing of every certificate program student.
- See the Law School website (<http://www.umn.edu/law/>) for specific course requirements and additional information about this certificate.

## Natural Resources and Environmental Law Certificate

The Certificate Program is designed for law students who wish to acquire an in-depth knowledge of environmental and natural resources law and who are willing to commit the time and effort necessary to achieve a level of specialization in their legal education. The Certificate Program provides students the opportunity to graduate from law school with a credential recognizing their concentration and accomplishment in the two fields.

## Certificate - Natural Resources and Environmental Law

## Requirements

- Because we believe specialization in law school should not come at the expense of a well-rounded legal education, we require students in the Certificate Program to complete 95 hours compared to 90 credit hours for students outside the Certificate Program. In most cases, this additional credit load can be completed within the normal three academic years of law school.
- Students completing the Certificate Program must earn a total of 95 credits.
- Students must successfully complete the advanced writing requirement in an area addressing an environmental or natural resources topic. To assure that a Third-Year Writing Assignment satisfies this requirement, the student must receive approval of the proposal by the Associate Dean's designate. The Associate Dean's designate is to review the writing topic and the final writing of every certificate program student.
- See the Law School website (<http://www.umn.edu/law/>) for specific course requirements and additional information about this certificate.

# LIST OF ALL UNIVERSITY OF MONTANA PROGRAMS

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## Accounting (ACTG)

### ACTG 101 - Accounting Procedures I. 3 Credits.

Offered autumn and spring. Offered at Missoula College. Basic double-entry accounting. Emphasis on analyzing, journalizing, and posting transactions; trial balance, worksheet, financial statements, and adjusting/closing procedures, accounting systems, and cash control.

### ACTG 102 - Accounting Procedures II. 3 Credits.

Offered spring. Offered at Missoula College. Prereq., ACTG 101. Expansion of ACTG 101 including receivables, inventories, plant and intangible assets, and expanded liabilities. Includes partnerships, corporations, long-term liabilities, investments in debt and equity securities, and the statement of cash flows. Also includes an introduction to QuickBooks.

**ACTG 130 - Applied Accounting & Decision Making. 3 Credits.**

Offered autumn and spring at Missoula College. Prereq., ACTG 101 and BGEN 105S. This course is designed to introduce the QuickBooks software for both a service business and merchandising business. We will set up a chart of accounts, and process accounts receivable, accounts payable, inventory, and payroll. Preparation and analysis of financial statements will be emphasized. In addition, we will develop data driven decision making skills through the use of those financial reports. Course includes multiple case studies.

**ACTG 180 - Payroll Accounting. 3 Credits.**

Offered autumn and spring. Offered at Missoula College. Payroll Topics including Federal and Montana state payroll tax law. The course includes study of workers compensation, independent contractor determination and registration, preparation of payroll, payroll tax returns and deposits, and annual information payroll returns. Students will also be exposed to federal law affecting payroll such as Fair Labor Standards Act, ADA, Family Medical Leave Act, Civil Rights Act, etc. and applicable Montana state laws.

**ACTG 191 - Special Topics. 1-6 Credits.**

(R-6) Experimental offerings of visiting professors, experimental offerings of new courses, or one-time offerings of current topics.

**ACTG 192 - Independent Study. 1-9 Credits.**

(R-9) Course material appropriate to the needs and objectives of the individual student.

**ACTG 201 - Principles of Financial Accounting. 3 Credits.**

Offered every term. Prereq., or corequisite M 115, M 121, M 151, M 162, or M 171. Introduction to financial accounting concepts, including transactions analysis, financial statement analysis, and corporate financial reporting practices.

**ACTG 202 - Principles of Managerial Accounting. 3 Credits.**

Offered every term. Prereq., ACTG 201 and M 115, M 121, M 151 or M 162. Continuation of ACTG 201 with a focus on managerial accounting topics.

**ACTG 211 - Income Tax Fundamentals. 4 Credits.**

Offered autumn. Offered at Missoula College. Prereq., ACTG 180 with a C grade or better. This class is a comprehensive overview of individual income taxation. It includes an introduction to taxation terminology, taxation principles and an overview of retirement plans/tax ramifications for small businesses/individuals. Individual taxation is taught through preparation of a series of tax returns. Course emphasis is on individuals and sole proprietorships.

**ACTG 215 - Fundamentals of Government and Nonprofit Accounting. 3 Credits.**

Offered spring. Offered at Missoula College. Prereq., ACTG 101 and ACTG 102. Principles of accounting for governmental units, health care organizations, colleges and universities, and other nonprofit organizations.

**ACTG 250 - Accounting Capstone. 4 Credits.**

Offered Spring. Offered at Missoula College. Prereq., ACTG 101 and 102 or ACTG 202; and ACTG 180. A culmination to all course work done in accounting core; this is a preparation class for the accounting workplace. Course will utilize accounting software to apply learned technical skills. This course requires completion of a comprehensive practice set in financial accounting, ratio analysis and spreadsheet utilization. This course also serves to sharpen students' writing, presenting and critical thinking skills.

**ACTG 291 - Special Topics. 1-6 Credits.**

(R-6) Offered intermittently. Experimental offerings of visiting professors, experimental offerings of new courses, or one-time offerings of current topics.

**ACTG 292 - Independent Study. 1-3 Credits.**

(R-9) Course material appropriate to the needs and objectives of the individual student.

**ACTG 298 - Internship. 1-3 Credits.**

(R-3) Offered autumn and spring. Offered on Mountain Campus and at Missoula College. On-the-job training in positions related to the accounting field. This experience increases students' skills, prepares them for initial employment, and increases occupational awareness and professionalism. Students work a minimum of six hours each week at an approved site and attend scheduled one-hour seminars. Offered for CR/NCR grading only.

**ACTG 305 - Corporate Reporting I. 3 Credits.**

Offered autumn and spring. Prereq., ACTG 201. Prereq. or coreq., ACTG 202. Topics include concepts in generally accepted accounting principles for financial accounting and reporting, assets, revenue recognition, and related income statement accounts.

**ACTG 306 - Corporate Reporting II. 3 Credits.**

Offered fall and spring. Prereq., ACTG 305. Continuation of ACTG 305. Topics include concepts in financial accounting, coverage of the liability and equity side of the balance sheet, the cash flow statement, and several special financial accounting topics.

**ACTG 307 - Corporate Reporting III. 3 Credits.**

Offered intermittently. Prereq., or corequisite ACTG 306. Application of accounting principles to complex issues such as post-retirement benefits, accounting changes, bankruptcies, reorganizations, income taxes and other topics.

**ACTG 321 - Accounting Information Systems I. 3 Credits.**

Offered autumn and spring. Prereq., ACTG 201 and BMIS 270. Provides thorough understanding of business processes, risks, and internal controls. Computer applications may be used to demonstrate concepts.

**ACTG 391 - Special Topics. 1-9 Credits.**

(R-9) Offered intermittently. Experimental offerings of visiting professors, experimental offerings of new courses, or one-time offerings of current topics.

**ACTG 392 - Independent Study. 1-6 Credits.**

(R-6) Offered every term. Course material appropriate to the needs and objectives of the individual student.

**ACTG 394 - Undergraduate Seminar. 1-6 Credits.**

(R-6) Offered intermittently. Selected topics in accounting.

**ACTG 401 - Federal Income Taxation. 3 Credits.**

Offered autumn. Prereq., or corequisite ACTG 306. The application of the federal income tax law to determine income, deductions and losses. Special topics include property transactions and an introduction to business entities. Level: Undergraduate and Graduate.

**ACTG 410 - Cost Management Accounting I. 3 Credits.**

Offered autumn. Prereq., ACTG 201 and ACTG 202 and one of STAT 216, SOCI 202, PSYX 222, or FORS 201. The study of cost management for business and other organizations. Emphasis on how information about costs helps managers make better decisions. Level: Undergraduate and Graduate.

**ACTG 411 - Auditing I. 3 Credits.**

Offered spring. Prereq., ACTG 321. Prereq. or coreq., ACTG 306. Introduction to auditing with emphasis on the independent audit of financial statements. Coverage includes U.S. audit and professional standards, including professional ethics, audit risk, evidence, internal controls, audit procedures, and opinions. Level: Undergraduate and Graduate.

**ACTG 425 - Governmental Accounting. 3 Credits.**

Offered spring. Prereq., or corequisite ACTG 306. Reporting requirements and generally accepted accounting principles applicable to state, local, Federal, and other governmental units. Level: Undergraduate and Graduate.

**ACTG 426 - Accounting for Nonprofits. 1 Credit.**

Offered intermittently. Prereq., or corequisite ACTG 306. Reporting requirements and generally accepted accounting principles applicable to nonprofit entities, including colleges and universities. Level: Undergraduate and Graduate.

**ACTG 432 - Income Tax Practicum. 1 Credit.**

Offered spring. Prereq., ACTG 201, ACTG 202, ECNS 201S, BGEN 222, BMIS 270, and one of STAT 216, SOCI 202, PSYX 222, or FORS 201. Service course that provides free tax preparation to low income taxpayers and students, in conjunction with the IRS. Students apply their knowledge of tax law to the preparation and e-filing of income tax returns under the direction of a practicing CPA. Designated as a service learning course. Graded credit/no credit only. Level: Undergraduate.

**ACTG 491 - Special Topics. 1-9 Credits.**

(R-9) Offered intermittently. Experimental offerings of visiting professors, experimental offerings of new courses, or one-time offerings of current topics. Level: Undergraduate and Graduate.

**ACTG 492 - Independent Study. 1-6 Credits.**

(R-6) Offered every term. Course material appropriate to the needs and objectives of the individual student. Level: Undergraduate and Graduate.

**ACTG 494 - Seminar. 1-6 Credits.**

(R-6) Offered intermittently. Topics Vary. Level: Undergraduate and Graduate.

**ACTG 495 - Accounting Practicum. 1-9 Credits.**

Offered intermittently. Prereq., ACTG 201, ACTG 202, ECNS 201S, BGEN 222, BMIS 270, and one of STAT 216, SOCI 202, PSYX 222, or FORS 201. Practical hands-on experience with area organizations. Provides application of classroom learning. Level: Undergraduate

**ACTG 498 - Internship. 1-6 Credits.**

Offered every term. Prereq., ACTG 201, ACTG 202, ECNS 201S, BGEN 222, BMIS 270, and one of STAT 216, SOCI 202, PSYX 222, or FORS 201. Students are placed with private or governmental organizations to receive on-the-job training. Written reports are required. A maximum of 3 credits of internship may count toward graduation. Level: Undergraduate.

**ACTG 605 - Administrative Controls. 2 Credits.**

Offered autumn. Restricted to students in the Master of Business Administration program. The application of accounting information to managerial and financial decision making. Level: Graduate

**ACTG 610 - Accounting & Data Analytics. 3 Credits.**

Offered autumn. Prereq., ACTG 306. An exploratory, high-level study of issues surrounding data and data analysis in accounting using large data sets to become an intelligent data consumer, data user, and information communicator as a professional accountant.

**ACTG 615 - Accounting Theory. 3 Credits.**

Offered autumn or spring. Restricted to students in the Master of Accountancy program. A critical analysis of the concepts underlying the development and application of financial accounting in the United States. Coverage of current accounting standards as well as other current topics in financial accounting. Level: Graduate

**ACTG 616 - Advanced Financial Topics. 3 Credits.**

Restricted to students in the Master of Accountancy program. Study of financial accounting topics requiring complex treatment. Level: Graduate

**ACTG 631 - Advanced Tax. 3 Credits.**

Offered autumn or spring. Prereq., ACTG 401. Restricted to students in the Master of Accountancy program. The application of the federal income tax law to corporations and partnerships, and special problems associated with taxation of trusts, estates and gifts. Level: Graduate

**ACTG 632 - Advanced Income Tax Practicum. 1 Credit.**

Offered spring. Restricted to graduate students in the College of Business. Service course that provides free tax preparation to low income taxpayers and students, in conjunction with the IRS. Graduate students apply their knowledge of tax law to the preparation and e-filing of income tax returns under the direction of a practicing CPA, review the work of undergraduate preparers, and assist in the organization and training of undergraduate preparers. Designated as a service-learning course. Grade option credit/no credit only. Level: Graduate

**ACTG 641 - Current Topics in Assurance. 3 Credits.**

Offered autumn or spring. Prereq., ACTG 411. Restricted to students in the Master of Accountancy program. Research cases in auditing and coverage of contemporary topics in assurance, such as audit standards, attestation standards, government audits, other assurance reports and services, and regulation of CPAs performing these services. Level: Graduate

**ACTG 643 - Fraud/Forensic Accounting. 2-3 Credits.**

Offered intermittently. Prereq., ACTG 321 and ACTG 411 with a minimum grade of B. Restricted to students in the Master of Accountancy program. A study of fraud motivations, techniques, prevention, and detection.

Includes the study of forensic accounting using forensic science, information security, and other forensic auditing/investigation tools and techniques as they apply in various fraud and financial contexts. Level: Graduate

**ACTG 661 - Accounting Law & Ethics. 3 Credits.**

Offered autumn or spring. Restricted to graduate students in the College of Business. Legal issues from the common law and appropriate statutes applicable to the public practice of accounting. The professional responsibilities and ethics of a practicing CPA. Level: Graduate

**ACTG 675 - Contemporary Accounting Problems. 1-6 Credits.**

(R-6) Restricted to students in the Master of Accountancy program. Requires a CPA exam score of 60 or greater. Integration of accounting theory and practice. Primarily for the student preparing to take the uniform CPA examination. Graded only credit/no credit. Level: Graduate.

**ACTG 691 - Special Topics. 1-9 Credits.**

(R-24) Offered intermittently. Experimental offerings of visiting professors, experimental offerings of new courses, or one-time offerings of current topics.

**ACTG 692 - Independent Study. 1-9 Credits.**

(R-6) Offered every term. Directed study of individual or small groups of students in topics not available in scheduled classes. Level: Graduate

**ACTG 694 - Seminar. 1-3 Credits.**

(R-15) Offered intermittently. Restricted to graduate students in the College of Business. Selected topics in accounting. Level: Graduate

**ACTG 695 - Practicum. 1-9 Credits.**

(R-12) Organized field experience or practicum in accounting. Level: Graduate.

**ACTG 698 - Internship. 1-6 Credits.**

(R-6) Offered every term. Restricted to graduate students in the College of Business. Placements with private or governmental organizations for practical training. Written reports required. Level: Graduate

**ACTG 699 - Dissertation. 1-6 Credits.**

(R-6) Restricted to graduate students in the College of Business. Grade option credit/no credit only. Level: Graduate

## Activities (ACT)

**ACT 101 - Stretch and Relax. 1 Credit.**

(R-4) Students learn physical exercises in which a specific muscle or tendon (or muscle group) is deliberately flexed or stretched in order to improve the muscle's felt elasticity and achieve comfortable muscle tone. Learn types of stretches for a particular muscle and its specific job, so resistance should be applied, then the muscle should be relaxed.

**ACT 103 - Movement Flow. 1 Credit.**

(R-4) A dynamic, interdisciplinary class that combines elements of dance, yoga, martial arts, and functional movement to create a fluid full-body workout. Designed to improve strength, flexibility, coordination, and body awareness, this class emphasizes seamless transitions between movements, fostering a sense of flow and mindfulness. Through guided practice and improvisation, students will explore the connections between breath, movement, and creativity, culminating in a more intuitive and balanced approach to physical activity.

**ACT 105 - Aerobic Fitness. 1 Credit.**

(R-4) Students learn physical exercise of low to high intensity that depends primarily on the aerobic energy-generating process and light-to-moderate intensity activities that are sufficiently supported by aerobic metabolism that can be performed for extended periods of time.

**ACT 106 - Beginning Conditioning and Fitness. 1 Credit.**

(R-4) Students will acquire the use of continuous rhythmic movement of the large muscle groups to strengthen the heart and lungs (cardiovascular system) and learn to keep this level of aerobic conditioning or progressively increase training to increase aerobic conditioning.

**ACT 107 - Beginning Aerobic Dance. 1 Credit.**

(R-4) Students will learn rhythmic aerobic exercise with stretching and strength training routines with the goal of improving all elements of fitness (flexibility, muscular strength, and cardiovascular fitness) as well as various routines comprising a number of different dance-like exercises.

**ACT 109 - Beginning Racquetball. 1 Credit.**

(R-4) Students will learn the basic skills of racquetball -- a racquet sport played with a hollow rubber ball on an indoor court. This includes the fundamental strokes and shot selections of racquetball. Students will also acquire the knowledge of the rules of Cut-Throat, Doubles, Ironman, One-out, "Sevens", and Singles.

**ACT 110 - Beginning Weight Training. 1 Credit.**

(R-4) Offered every term. Students will develop the strength and size of skeletal muscles and learn the form of weighted bars, dumbbells, or weight stacks in order to oppose the force generated by muscle through concentric or eccentric contraction.

**ACT 111 - Beginning Weight Training - Women. 1 Credit.**

(R-4) Students will develop the strength and size of skeletal muscles and learn the form of weighted bars, dumbbells, or weight stacks in order to oppose the force generated by muscle through concentric or eccentric contraction.

**ACT 112 - Brazilian Jiu-Jitsu. 1 Credit.**

(R-4) This course introduces students to the basic vocabulary, positions, and movements in Jiu-Jitsu in order to build confidence in physically demanding/stressful environments, foster real-time problem solving and creative thinking skills, and develop respect for martial arts and combat sports.

**ACT 114 - Beginning Rock Climbing. 1 Credit.**

(R-4) Offered every term. This course is an introduction to foundational rock climbing movement, technical skills, and equipment for students new to the activity as well as for students who have some prior top rope climbing experience and want to learn how to climb outside. Lesson topics begin with basic movement techniques and progress up to lead climbing and belaying, sport anchor building, and anchor cleaning. The course includes indoor days at the University of Montana Climbing Wall and field days at local climbing areas.

**ACT 123 - Bouldering. 1 Credit.**

(R-4) Students will learn the fundamental skills of bouldering -- a form of rock climbing that is performed using artificial rock walls that simulate small rock formations, known as boulders, without the use of ropes or harnesses. While it can be done without any equipment, students use climbing shoes to help secure footholds, chalk to keep their hands dry and provide a firmer grip, and bouldering mats to prevent injuries from falls.

**ACT 124 - Flow Arts. 1 Credit.**

(R-4) Students learn the moving meditation of manipulating props such as staffs, hoops, poi, juggling, and other tools and revel in creativity as they learn about and practice prop techniques that improve dexterity and proprioception. Students will share the joy of movement and self-expression and tap into their unlimited potential. The state of flow creates new pathways in the brain and offers an alternative perspective on movement inside the body as well as outside the body. It is also an exciting way to gain fitness by increasing heart rate, agility, and flexibility. There is an opportunity for a student showcase at the end of the semester.

**ACT 125 - Acro Yoga. 1 Credit.**

(R-4) Acro yoga is an effective form of cross training for any discipline. This course combines dance, yoga, and partner work into an ambient or dynamic sequence of movement expression. With a focus on safety and proper body alignment, students gain strength, flexibility, and trust. Students integrate the playful and whimsical qualities of acrobatics with the more grounded and practical aspects of asana.

**ACT 128 - Aerial Arts. 1 Credit.**

(R-4) This course ventures into a cascade of dynamic movement to help students gain proficiency to defy gravity and soar. This is a small group class of progressive curriculum on sling/hammock, lyra, static trapeze, rope, and silks. With a focus on safety, alignment, and aerial body positioning, students practice conditioning exercises specifically designed to build aerial flexibility and strength. Students learn and apply the completion of fundamental skills in order to understand and apply the transfer of skills across multiple apparatuses.



**ACT 129 - Circuit Training. 1 Credit.**

(R-4) Upon completing this course, the student will be able to develop their strength, endurance, and flexibility by participating in various fitness programs or sports, demonstrate proper form and skills for various fitness programs, and recognize and demonstrate appropriate fitness etiquette.

**ACT 130 - Pole Fitness & Dance. 1 Credit.**

(R-4) Students learn basic turns, spins, and strengthening techniques to mount and climb the pole. Dance combinations, tricks, and poses are broken down into comprehensive step-by-step instructions. Students will delve deeper into inversions and combinations as well as expand on skills and tricks.

**ACT 136 - Aerial Yoga. 1 Credit.**

(R-4) This course teaches traditional Hatha yoga with an aerial hammock, aiding the student in postures. In order to accommodate a person who is new to yoga, the aerial hammock offers the body assistance to find correct alignment and decompression of the spine without pressure on the head or hands.

**ACT 137 - Capoeira Angola. 1 Credit.**

(R-4) Students will learn the basic elements of Capoeira Angola as a game rather than the mainstream advertised martial art. Through this practice, students will train the brain and the body to use intuition as a source of choice making. We will push to accelerate the process of deciding what to do, deciding to do, and then doing it.

**ACT 138 - Olympic-Style Weightlifting. 1 Credit.**

(R-4) This course is an introduction to the sport of Olympic-style weightlifting as well as its practical application. It includes instruction on basic weightlifting principles, power and strength development, safety considerations, etiquette, exercise selection, and lifting technique.

**ACT 139 - Parkour. 1 Credit.**

(R-4) Student will learn the fundamentals of parkour -- a training discipline using movement that developed from military obstacle course training. Practitioners aim to get from one point to another in a complex environment without assistive equipment and in the fastest and most efficient way possible. Parkour includes running, climbing, swinging, vaulting, jumping, rolling, and other movements as deemed most suitable for the situation.

**ACT 140 - Beginning Basketball. 1 Credit.**

(R-4) Students will learn the team sport with five players on each side, three-on-three, two-on-two, and one-on-one competitions and acquire the form to shoot a basketball through a hoop 18 inches in diameter and 10 feet high that is mounted to a backboard at each end of the court.

**ACT 141 - Movement Improvisation. 1 Credit.**

(R-4) Movement Improvisation is an all-abilities class designed to empower students in every aspect of their lives. Students learn how to access spontaneous, creative responses to life events and develop embodied self-confidence and self-expression through guided games and improvisational movement. Movement Improvisation offers students not only physical fitness; it will increase students' capacity to succeed. Students discover how the body can be a tool for self-awareness, self-expression, and connection and have fun while doing it.

**ACT 143 - Beginning Table Tennis. 1 Credit.**

(R-4) Offered every term. Students will learn the sport in which two or four players hit a lightweight ball back and forth across a table using small bats. Students will acquire the ability to allow a ball played toward them to bounce one time on their side of the table and return it so that it bounces on the opposite side at least once.

**ACT 145 - Beginning Dodgeball. 1 Credit.**

(R-4) Students will learn a collection of team sports in which players on two teams try to throw balls at each other while avoiding being hit themselves. They will acquire the many variations of the game, generally by eliminating all members of the opposing team by hitting them with thrown balls, catching a ball thrown by a member of the opposing team, or forcing them to move outside the court boundaries when a ball is thrown at them.

**ACT 146 - Beginning Golf. 1 Credit.**

(R-4) Students will gain the ability to use various clubs to hit balls into a series of holes on a course in as few strokes as possible and to cope with the varied terrains encountered on different courses.

**ACT 147 - Dance Fitness. 1 Credit.**

(R-4) The course is an introduction to aerobic dance fitness. Students will study choreographed dances to top-40 songs by breaking down the movement and sequences. As the semester progresses, students will learn to master the routines and be able to put more effort and energy into each dance aiming for a high intensity cardio workout.

**ACT 150 - Beginning Yoga. 1 Credit.**

(R-4) This course is an introduction to yoga, a group of physical, mental, and spiritual practices or disciplines that originated in ancient India. Students will learn a broad variety of yoga schools, practices, and goals.

**ACT 151 - Beginning Billiards. 1 Credit.**

(R-4) This course is an introduction to billiards. Students will learn a wide variety of games of skill generally played with a cue stick, which is used to strike billiard balls and thereby cause them to move around a cloth-covered billiards table bounded by elastic bumpers known as cushions.

**ACT 152 - Beginning Handball. 1 Credit.**

(R-4) This course is an introduction to handball. Students will learn the sport in which players use their hands to hit a small rubber ball against a wall such that their opponent cannot do the same without it touching the ground twice. This includes the basics of four-wall, which can be played either by two players (singles), three players (cutthroat) or four players (doubles).

**ACT 154 - Beginning Tai Qi. 1 Credit.**

(R-4) This course is an introduction to tai qi. Students will learn the internal Chinese martial art practiced for both its defense training and its health benefits. Students will explore the philosophy of the forces of yin and yang as related to the moves.

**ACT 155 - Judo. 1 Credit.**

(R-4) Generally categorized as a modern martial art, Judo has since evolved into an Olympic sport as well as a physical, mental, and moral pedagogy. Students will learn to either throw or take down an opponent to the ground, immobilize or otherwise subdue an opponent with a pin, or force an opponent to submit with a joint lock or a choke. Students will also learn strikes and thrusts by hands and feet as well as other defenses, but only in pre-arranged forms and not in free practice.

**ACT 156 - Beginning Aikido. 1 Credit.**

(R-4) This course is an introduction to aikido, a modern Japanese martial art developed as a synthesis of martial studies, philosophy, and religious beliefs. Students learn to use techniques to defend themselves while also protecting their attacker from injury.

**ACT 157 - Beginning Martial Arts. 1 Credit.**

(R-4) Students will learn about codified systems and traditions of combat practiced for a number of reasons such as self-defense, military and law enforcement applications, physical, mental, and spiritual development.



**ACT 158 - Beginning Taekwondo. 1 Credit.**

(R-4) This course is an introduction to taekwondo, a Korean martial art characterized by its emphasis on head-height kicks, jumping and spinning kicks, and fast kicking techniques.

**ACT 160 - Avalanche 1 Training. 1 Credit.**

This Avalanche Level 1 course is for skiers or snowboarders who want to recreate in or near avalanche terrain. The focus is an introduction to avalanche terrain and decision making. Successful students will receive a certificate of completion through the American Avalanche Institute (AAI). All classroom and field sessions are mandatory to attend.

**ACT 163 - 5/10 K Race Training. 1 Credit.**

(R-4) Students will learn the act of exercising to increase endurance for a long-distance road running competition and improve training of the aerobic system.

**ACT 169 - Beginning Tennis. 1 Credit.**

(R-4) This course is an introduction to tennis, a racquet sport that can be played individually against a single opponent (singles) or between two teams of two players each (doubles). Each player uses a strung racquet to strike a hollow rubber ball covered with felt over or around a net and into the opponent's court. The object of the game is to maneuver the ball in such a way that the opponent is not able to play a valid return. The player who is unable to return the ball will not gain a point, while the opposite player will.

**ACT 170 - Beginning Swimming. 1 Credit.**

(R-4) This course introduces students to the self-propulsion of a person through water, usually for recreation, sport, exercise, or survival. Locomotion is achieved through coordinated movement of the limbs, the body, or both.

**ACT 171 - Physical Fitness I. 1 Credit.**

(R-4) Students will perform aspects of sports, occupations, and daily activities and perform moderate-vigorous physical exercise and sufficient rest.

**ACT 172 - Physical Fitness II. 1 Credit.**

(R-4) A continuation of ACT 171. Students will learn the capacity to carry out the day's activities without undue fatigue and improve the body's ability to function efficiently and effectively in work and leisure activities, to be healthy, to resist hypokinetic diseases, and to meet emergency situations.

**ACT 173 - Beginning Fly Fishing and Fly Tying. 1 Credit.**

(R-4) Students will learn the angling method in which an artificial fly is used to catch fish and improve casting using a fly rod, reel, and specialized weighted line.

**ACT 174 - Introduction to Backpacking. 1 Credit.**

(R-4) The course introduces students to the outdoor recreation activity of carrying gear on one's back while hiking for more than a day. This includes minimizing the impact on the environment, including staying on established trails and not disturbing vegetation.

**ACT 175 - Fly Fishing. 1 Credit.**

(R-4) This course introduces the fundamentals of fly fishing, including casting techniques, knot tying, fly selection, and reading water conditions. Students will develop skills in ethical angling practices, fish handling, and conservation awareness. The course includes both classroom instruction and hands-on practice in local waters. No prior experience is required and equipment is provided or available for rental.

**ACT 176 - Fundamentals of Whitewater Rafting. 1 Credit.**

(R-4) Students will learn the recreational outdoor activity of using an inflatable raft to navigate a river or other body of water and learn how to deal with risk and the need for teamwork.

**ACT 177 - Fundamentals of Kayaking. 1 Credit.**

(R-4) Students will learn the use of a kayak for moving across water by pulling front-to-back on one side and then the other in rotation.

**ACT 191 - Special Topics. 1-6 Credits.**

(R-6) Offered intermittently. Experimental offerings of visiting professors, experimental offerings of new courses, or one-time offerings of current topics.

**ACT 202 - Intermediate Racquetball. 1 Credit.**

(R-4) This is an intermediate course for the sport of racquetball. Students should have a fundamental understanding of the sport, including the rules of the game and its variations, and the necessary equipment. Intermediate-level instruction will focus more on stroke mechanics and strategies. Students will also be learning the enjoyment of playing racquetball, a game that can last a lifetime.

**ACT 207 - WC Aerobics. 1 Credit.**

(R-4) Formal aerobics classes are divided into different levels of intensity and complexity. Students will learn the five components: warm-up, cardiovascular conditioning, muscular strength and conditioning, cool-down, and stretching and flexibility.

**ACT 210 - Intermediate Weight Training. 1 Credit.**

(R-4) This class gives students the opportunity to learn or refine their exercise technique and learn new methods to help them achieve their strength and fitness goals.

**ACT 214 - Intermediate Rock Climbing. 2 Credits.**

(R-4) Students will learn to develop the length and extended endurance required on the ascent and to complete routes in the quickest possible time or attain the farthest point on an increasingly difficult route.

**ACT 215 - Climbing Wall Instructor. 1 Credit.**

(R-4) This course will address the technical skills necessary to manage an instructional program at an indoor climbing wall facility and will address the following general topic areas: instructor roles, responsibilities and professionalism, client orientation and instruction, risk management, lesson planning, teaching basic climbing skills, including movement, teaching lead climbing skills, teaching top-rope and lead belaying techniques, use of available equipment and facility, basic rescue and emergency procedures.

**ACT 216 - Functional Training. 1 Credit.**

(R-4) Functional Training is a classification of exercise that involves training the body for the activities performed in daily life. The exercises allow students to perform the activities of daily life more easily and without injuries and involve mainly weight bearing activities targeted at core muscles of the abdomen and lower back.

**ACT 218 - Ultimate Disc. 1 Credit.**

(R-4) Students will learn the non-contact team sport played with a flying disc (Frisbee) and learn to score by passing the disc to a teammate in the opposing end zone.

**ACT 219 - Disc Golf. 1 Credit.**

(R-4) Students will learn the basics of disc golf, including throwing techniques, course strategy, and tips to improve play. Students will explore local courses, making the most of scenic spots while honing their skills. Perfect for all fitness levels, this course offers a great way to stay active and enjoy the outdoors.

**ACT 222 - Ski Camp. 1 Credit.**

(R-4) This course explores the fundamentals of backcountry ski camping, including winter travel techniques, campsite selection, avalanche awareness, and essential survival skills. Students will develop proficiency in route planning, gear management, and backcountry safety while practicing Leave No Trace principles. Prior skiing experience recommended and specialized equipment is required.

**ACT 223 - Water Aerobics. 1 Credit.**

(R-4) Students will learn the performance of aerobic exercise and resistance training in fairly shallow water such as in a swimming pool, done mostly vertically and without swimming typically in waist deep or deeper water. Water aerobics requires water-immersion and is held in a group fitness class setting. The classes focus on aerobic endurance, resistance training, and creating an enjoyable atmosphere.

**ACT 224 - Skiing, Cross Country. 1 Credit.**

(R-4) This activity course is designed to introduce students to the joy of cross-country skiing. Cross-country skiing is a form of skiing whereby skiers traverse snow-covered terrain without use of ski lifts or other assistance. Cross-country skiing is widely practiced as a sport and recreational activity; however, some still use it as a means of transportation. Variants of cross-country skiing are adapted to a range of terrain which spans unimproved, sometimes mountainous terrain to groomed courses that are specifically designed for the sport.

**ACT 225 - Snow Bowl Ski Area. 1 Credit.**

(R-4) Students will learn alpine skiing, or downhill skiing, the sport or recreation of sliding down snow-covered hills on skis with fixed-heel bindings, snowboarding, a recreational activity and Olympic and Paralympic sport that involves descending a snow-covered slope while standing on a snowboard attached to a rider's feet, or telemark skiing, a skiing technique that combines elements of alpine and nordic skiing.

**ACT 228 - Ski Instructor's Preparation. 2 Credits.**

(R-4) Open to all students with advanced to expert skiing skills. This course covers techniques of teaching skiing including: skill concepts and contemporary skiing movements, teaching cycle, movement analysis, and personal skiing improvement. The course prepares student for certification with Professional Ski Instructors of America (PSIA).

**ACT 229 - Snowboard Instructor Prep. 2 Credits.**

(R-4) Open to students with advanced to expert riding skills. This course covers the techniques of teaching snowboarding, including skill concepts and contemporary snowboarding movements, teaching cycle, movement analysis, and personal riding improvement. Students are prepared for certification the American Association of Snowboard Instructors (ASSI).

**ACT 231 - Pilates - Yoga Fusion. 1 Credit.**

(R-4) This course is a blend of Pilates and yoga. Students will learn a low-impact workout that strengthens and sculpts the body and enhances flexibility.

**ACT 232 - Argentine Tango. 1 Credit.**

(R-4) Students learn the musical genre and accompanying social dance activity in a variety of styles that developed in different regions and eras.

**ACT 235 - Belly Dancing. 1 Credit.**

(R-4) This course provides the foundation for the Arabic expressive dance that originated in Egypt and emphasizes complex movements of the torso. Students explore many different forms depending on the country and region, both in costume and dance style.

**ACT 237 - Trampoline Aerial Acrobatics. 1 Credit.**

(R-4) This course provides an environment of performance for extraordinary human feats of balance, agility, and motor coordination. Activities will make extensive use of gymnastic elements, such as acro dance, circus, and gymnastics, and many other athletic activities such as ballet and diving.

**ACT 239 - Meditation. 1 Credit.**

(R-4) The purpose of this course is to introduce students to time-tested and lab-tested meditation practices that will help cultivate more presence, compassion, and connection in their lives. This course is an exploration of practices that increase understanding of the nature of the mind, the self, and reality. Students will explore these practices through the lens of self, community, and world. In each class students will study, contemplate, and practice various teachings and meditations through personal reflection, journaling, partnering, and group discussion.

**ACT 250 - Pilates. 1 Credit.**

(R-4) Students will learn the physical fitness system developed to improve flexibility, build strength, and develop control and endurance in the entire body.

**ACT 254 - Self-Defense. 1 Credit.**

(R-4) This course is an introduction to countermeasures that involve defending the health and well-being of oneself from harm. Students will be introduced to various styles of unarmed martial arts that are practiced for self-defense and include self-defense techniques. Students will learn some styles that train primarily for self-defense and other martial arts that can be effectively applied for self-defense. Students will learn how to escape or break away from specific situations. To provide more practical self-defense, students will learn to use a combination of martial arts styles and techniques.

**ACT 257 - Martial Arts and Self-Defense. 1 Credit.**

(R-4) Students will learn to become physically adept in physical, mental, and moral pedagogy and its conditioning.

**ACT 259 - AAK American Kenpo. 1 Credit.**

(R-4) Students will learn the martial art characterized by the use of quick and powerful strikes delivered from all of the body's natural weapons powered by rapid stance transitions, called "shifting." This includes basic attack responses that comprise a larger system taught through scripted scenarios and allow a platform to share concepts and principles emphasized in teachings.

**ACT 271 - Swimming for Fitness. 1 Credit.**

(R-4) Students learn the self-propulsion of a person through water, usually for recreation, sport, exercise, or survival and improve their locomotion through coordinated movement of the limbs, the body, or both.

**ACT 274 - Scuba Diving. 1 Credit.**

(R-4) This is a Professional Association of Diving Instructors (PADI) course that teaches the mode of underwater diving where the diver uses a self-contained underwater breathing apparatus (scuba) that is completely independent of surface supply to breathe underwater. The course prepares students for PADI certification dives.

**ACT 286 - Fencing. 1 Credit.**

(R-4) Students will learn modern fencing: winning points made through the contact with an opponent. The course covers the three forms of modern fencing, each using a different kind of weapon and having different rules: foil, épée, and sabre.

**ACT 287 - Archery. 1 Credit.**

(R-4) This course introduces the fundamentals of archery, including proper shooting techniques, equipment selection, range safety, and target accuracy. Students will develop focus, coordination, and precision through hands-on practice. No prior experience required.

**ACT 291 - Special Topics. 1-6 Credits.**

(R-6) Offered intermittently. Offerings of visiting professors, new courses, or current topics.

## Activities - Varsity (ACTV)

**ACTV 189 - Varsity Athletics. 1 Credit.**

(R-4) Offered every term. Students graded Credit/No Credit based on participation and a strict attendance policy.

## Administrative Management (AMGT)

**AMGT 192 - Independent Study. 1-9 Credits.**

(R-9) Offered intermittently. Offered at Missoula College. Course material appropriate to the needs and objectives of the individual student.

**AMGT 198 - Internship. 1-6 Credits.**

(R-6) Extended classroom experience which provides practical application of classroom learning during placements within the business community. The student must complete a learning agreement with a faculty member, relating the placement opportunity to his or her field of study. A maximum of 6 credits of Internship (198, 298, 398, 498) may count toward graduation.

**AMGT 240 - Administrative Support for the Office. 3 Credits.**

Offered autumn. Offered at Missoula College. Prereq., CAPP 154. Overview of the procedures and scope of the administrative assistant's role in today's automated office, including traditional and electronic communications, operation of multi-media equipment, and managing office technology.

**AMGT 291 - Special Topics. 1-6 Credits.**

(R-6) Offered intermittently. Offered at Missoula College. Experimental offerings of visiting professors, experimental offerings of new courses, or one-time offerings of current topics.

**AMGT 298 - Administrative Management Internship. 2 Credits.**

Offered autumn and spring. Students should be in the last semester of the Administrative Management program, have a minimum grade of C in all program courses, and have the approval of the program director. On-the-job training in positions related to student's career goal in the administrative field. This experience increases students' skills, prepares them for initial employment, and increases occupational awareness and professionalism. Students work a approximately six hours each week at an approved site and attend career readiness workshops. A maximum of 6 credits of Internship (198, 298, 398, 498) may count toward graduation. Offered for CR/NCR grading only.

**AMGT 299 - Integrated Office Capstone. 3 Credits.**

Offered spring semester. Offered at Missoula College. Prereq., AMGT 240. A culmination of all coursework in the administrative management core. This course requires completion of an integrated project where students prepare effective and attractively designed business communication documents, spreadsheet utilization, data analysis and presentations. This course serves to hone students' word-based skill in customer service, project management, resource utilization, fundamental business office procedures, communication, writing and critical thinking.

## African-American Studies (AAST)

**AAST 141H - Black: From Africa to Hip-Hop. 3 Credits.**

Offered annually. This course introduces students to the primary questions, themes, and approaches to African-American Studies. In addition to examining key historical periods such as Reconstruction, the Harlem Renaissance, and the Civil Rights era, students will encounter Hip-Hop, African-American film, African-American religion, and contemporary identity politics. This course concludes by discussing the reasons for and new directions in African-American studies, including diaspora studies, Pan-Africanism, and post-colonial studies. Overall students will gain new insight into the social, cultural, political, and intellectual, experiences of a diverse people and into the history and contemporary experience of the United States.

Gen Ed Attributes: Historical Studies, Cultural & International Diversity

**AAST 208H - Africa: From Ancient Egypt to Apartheids Origin. 3 Credits.**

Offered intermittently. Interdisciplinary study of the history of pre-colonial Africa, focusing on social, economic, political and cultural institutions and traditions including the wealth, diversity and complexity of ancient and classical African civilizations and cultures.

Gen Ed Attributes: Historical Studies

**AAST 225 - Race, Inequality & Education. 3 Credits.**

Offered intermittently. This seminar-style honors course revolves around the question, "What is the relationship between racial inequality and education?" and explores how school systems in the United States have perpetuated racial inequality, while also considering if and how schools could instead work to combat racial inequality.

**AAST 250 - Human Rights and Mass Incarceration. 3 Credits.**

This course examines the historical development of prisons and policing in the United States and how these two mechanisms have been used as a form of social control, specifically against people of African descent. Explore themes such as convict leasing, the war on drugs, the prison-industrial complex, political prisoners in the United States and the school-to-prison pipeline among other vital issues.

**AAST 291 - Special Topics. 1-12 Credits.**

(R-12) Offered intermittently. Experimental offerings of visiting professors, experimental offerings of new courses, or one-time offerings of current topics.

**AAST 360 - White Supremacy - History/Defeat. 3 Credits.**

This course equips students to articulate and identify the history and development of key white supremacist groups in the U.S.; discuss the benefits and drawbacks of strategies used by key anti-racism groups in the U.S.; and implement and evaluate a project to dismantle white supremacy in the U.S. Usually includes a field trip to anti-racism conference.

**AAST 372 - African-American Identity. 3 Credits.**

Offered intermittently. Interdisciplinary course designed to explore and illuminate the multifaceted nature and development of African-American group and individual identity.

**AAST 375 - Black Women: Race, Gender and Sexuality. 3 Credits.**

Offered intermittently. This course offers an interdisciplinary examination of the historical and contemporary experiences of black women in the United States from the Antebellum Era through the present. The course explores key themes including labor and class, gender and sexual violence, as well as individual and collective forms of resistance.

**AAST 391 - Special Topics. 1-6 Credits.**

(R-6) Offered intermittently. Experimental offerings of visiting professors, experimental offerings of new courses, or one-time offerings of current topics.

**AAST 392 - Independent Study. 1-9 Credits.**

(R-9) Course material appropriate to the needs and objectives of the individual student.

**AAST 410 - Dismantling Racism: From Theory to Practice. 1 Credit.**

Dismantling Racism introduces students to the research-based and field-tested terms, concepts, and principles to dismantle institutional racism. Students will complete the class with a familiarity with the language, historical orientation, and analytical framework for starting the work of dismantling racism in the institutions to which they belong. Level: Undergraduate and Graduate.

**AAST 491 - Special Topics. 1-6 Credits.**

(R-6) Offered intermittently. Experimental offerings of visiting professors, experimental offerings of new courses, or one-time offerings of current topics. Level: Undergraduate and Graduate.

**AAST 492 - Independent Study. 1-9 Credits.**

(R-9) Course material appropriate to the needs and objectives of the individual student. Level: Undergraduate and Graduate.

**AAST 499 - Capstone/Thesis. 1-6 Credits.**

(R-6) Capstone project for the African-American Studies major. Level: Undergraduate

## Allied Health: Athletic Training (AHAT)

**AHAT 210 - Prevention and Care Athletic Injuries. 2 Credits.**

Coreq., AHAT 213. Development of knowledge of prevention, assessment, treatment, rehabilitation, emergency care of athletic injuries.

**AHAT 213 - Prevention and Care Athletic Injuries Lab. 1 Credit.**

Coreq., AHAT 210. Development of practical skills in prevention, assessment, treatment, rehabilitation, and emergency care of athletic injuries.

**AHAT 292 - Independent Study. 1-6 Credits.**

(R-6) Course material appropriate to the needs and objectives of the individual student.

**AHAT 324 - Assessment of the Extremities. 2 Credits.**

Coreq., AHAT 325. The study and practice of techniques used when assessing athletic injuries to the upper and lower extremities, including the spine.

**AHAT 325 - Assessment of the Extremities Lab. 1 Credit.**

Coreq., AHAT 324. The study and practice of techniques used when assessing athletic injuries to upper and lower extremities including the spine.

**AHAT 342 - Therapeutic Interventions. 2 Credits.**

Prereq., WRIT 101 or WRIT 201. Coreq., AHAT 343. Theories and application methods of interventions such as therapeutic modalities and exercise for athletic injuries. Substantial reading and writing component.

**AHAT 343 - Therapeutic Interventions Lab. 1 Credit.**

Coreq., AHAT 342. Laboratory sessions examining theories and application methods of interventions such as therapeutic modalities and exercise for athletic injuries.

**AHAT 479 - Topics in Sports Medicine. 3 Credits.**

Restricted to students with junior standing or higher. The etiology and management of sports related injuries/illnesses. Includes: therapeutic use of drugs, pre-participation screening techniques, ergogenic aids, the aging athlete, the sports medicine team concept and current medical treatment of sports injuries. Level: Undergraduate and Graduate.

**AHAT 490 - Undergraduate Research. 1-3 Credits.**

(R-6) Directed individual research and study appropriate to the background and objectives of the student. Level: Undergraduate.

**AHAT 492 - Independent Study. 1-3 Credits.**

(R-6) Course material appropriate to the needs and objectives of the individual student. Level: Undergraduate.

**AHAT 498 - Internship. 2-6 Credits.**

(R-6) Restricted to students with at least junior standing. Supervised field experiences with private businesses, public agencies, or institutions. 45 hours of internship site work = 1 credit. A maximum of 6 credits of Internship x98 may count toward graduation. Students should not be registered for more than 16 credits their internship semester. Level: Undergraduate.

## Allied Health: Health Sciences (AHHS)

**AHHS 191 - Special Topics. 1-6 Credits.**

(R-6) Offered intermittently. Experimental offerings of visiting professors, experimental offerings of new courses, or one time offerings of current topics.

**AHHS 291 - Special Topics. 1-6 Credits.**

(R-6) Offered intermittently. Experimental offerings of visiting professors, experimental offerings of new courses, or one-time offerings of current topics.

**AHHS 325 - Introduction to Gerontology. 3 Credits.**

Offered spring. Restricted to students with at least junior standing. An interdisciplinary discussion of the health and social issues of older persons, utilizing didactic presentations, clinical demonstrations, and curricular modules.

**AHHS 327 - Montana Gerontology Society Meeting. 1 Credit.**

(R-3) Offered spring. Attendance and participation in the Montana Gerontology Society meeting held annually in April.

**AHHS 389 - Recent Advances in Clinical Medicine. 1 Credit.**

(R-3) Offered spring. Restricted to students with at least junior standing. Weekly presentations throughout the semester by local clinical medical practitioners describing in non-technical terms recent advances in their specialties.

**AHHS 390 - Research. 1-4 Credits.**

(R-4) Independent research under the direction of a faculty member.

**AHHS 391 - Special topics. 1-12 Credits.**

(R-12) Offered intermittently. Experimental offerings of visiting professors, experimental offerings of new courses, or one-time offerings of current topics.

**AHHS 394 - Seminar/Workshop. 1-9 Credits.**

A review and discussion of current research. Topics vary.

**AHHS 395 - Geriatric Practicum. 1-3 Credits.**

(R-3) Offered spring. Supervised, practical experience in a professional setting relevant to the student's field of study.



**AHHS 418 - Geriatric Health Care. 1 Credit.**

(R-4) Offered spring semester. Course is offered on the Mountain Campus using blended delivery. Geriatric topics presented as a webinar by the University of Washington health professions faculty via the UW Interactive Virtual Classroom. Course is graded on attendance. Faculty are available for questions at end of presentation. Level: Undergraduate and Graduate.

**AHHS 420 - Geriatric Health Issues. 3 Credits.**

A review of normal aspects of aging, common health problems associated with aging, and common pharmacological and non-pharmacological treatments of these problems in older persons. Level: Undergraduate and Graduate.

**AHHS 430 - Health Aspects of Aging. 3 Credits.**

Offered fall. Overview of the health aspects of aging in the United States including biological theories of aging, normal physiological changes associated with aging systems, common pathological problems associated with aging, cultural and ethnic differences in the health of elders, health promotion and healthy aging, and the health care continuum of care for older persons. Level: Undergraduate and Graduate.

**AHHS 450 - Interprofessional Collaborative Practice Skills. 1 Credit.**

Offered autumn. The primary goals of this course are to bring students from various health care programs into one classroom to learn about interprofessional collaborative practice concepts and further develop skills needed to work as interdisciplinary teams in various health care settings. Students will be engaged through small and large group discussions/activities, relevant reading assignments, and short topic presentations to develop core competencies for IP practice. Available CR/NCR only. Level: Undergraduate and Graduate

**AHHS 470 - Friday Morning Medical Conference. 1 Credit.**

(R-9) Offered autumn and spring. Webinar presentation with in-class discussion. This course is a weekly presentation provided locally at Providence Saint Patrick Hospital and streamed live. A variety of relevant health care topics are presented by local, regional, and national speakers. FMMC is sponsored and supported by Western Montana AHEC. Students attending will learn about a variety of concepts, medical approaches, and health-care related issues impacting health care practitioners in a variety of settings. A facilitated in-class activity or discussion will wrap up the session each week. The material presented each semester is different, so students may take the course more than once. CR/NCR grading only. Level: Undergraduate.

**AHHS 484 - Introduction to Culinary Medicine: Spanning the Gap Between Pleasure and Prescription. 3 Credits.**

Offered intermittently. Provides an introduction to Culinary Medicine and builds context for the essential role that dietary choices play in individual and societal health and wellness. Level: Undergraduate and Graduate

**AHHS 490 - Research. 1-4 Credits.**

(R-8) Independent research under the direction of a faculty member. Level: Undergraduate and Graduate.

**AHHS 491 - Special Topics. 1-12 Credits.**

(R-12) Offered intermittently. Experimental offerings of visiting professors, experimental offerings of new courses, or one-time offerings of current topics. Level: Undergraduate and Graduate.

**AHHS 550 - Interprofessional Collaborative Practice Skills. 1 Credit.**

The primary goals of this course are to bring students from various health care programs into one classroom to learn about interprofessional collaborative practice concepts and further develop skills needed to work as interdisciplinary teams in various health care settings. Students will be engaged through small and large group discussions/activities, relevant reading assignments, and short topic presentations to develop core competencies for IP practice. Students will complete a paper on an IP topic. Level: Graduate

**AHHS 582 - Implementing Value Based System Change in Rehabilitation. 1 Credit.**

Offered every semester. Restricted to students in the Rehabilitation Administration Certificate program. This course enhances the learner's appreciation of the management, data, and system skills needed to successfully innovate and implement necessary value based practice changes to compete in the changing rehabilitation healthcare landscape. Level: Graduate

**AHHS 584 - Leadership to Develop Innovative Clinical Practice for Value Based Care. 2 Credits.**

This course will explore the drivers of healthcare reform, the key strategies to implement value based care, and the required leadership and organizational characteristics to support innovations and transformative health care. Level: Graduate

**AHHS 590 - Research. 1-6 Credits.**

(R-6) Independent research under the direction of a faculty member. Level: Graduate

**AHHS 591 - Special Topics. 1-12 Credits.**

(R-12) Offered intermittently. Experimental offerings of visiting professors, experimental offerings of new courses, or one-time offerings of current topics. Level: Graduate

**AHHS 592 - Independent Study. 1-6 Credits.**

(R-6) Course material appropriate to the needs and objectives of the individual student.

**AHHS 599 - System Skills to Thrive in a Changing Health Care Environment - Capstone Project. 4 Credits.**

This course will culminate in a capstone project describing the concept of system skills (ie., intrinsic interest in data, the ability to devise solutions to problems identified by the data; and understanding of how to implement practice innovations on a large scale) with relevance to physical therapy practice. The course has three components 1) the importance of measurement and the resultant systems data, 2) the concept of 'positive deviants' and provides case examples of innovators who are using systems data to solve clinical challenges, and 3) performance of a capstone project by the student related to their clinical issue. Level: Graduate

## Allied Health: Medical Assisting (AHMA)

**AHMA 191 - Special Topics. 1-6 Credits.**

(R-6) Offered intermittently. Offered at Missoula College. Experimental offerings of visiting professors, experimental offerings of new courses, or one-time offerings of current topics.

**AHMA 198 - Internship/Externship. 1-6 Credits.**

(R-6) Placement in a medical office for a guided experience providing the student with a practical application of learned medical office administrative skills. Direct supervision will be the responsibility of a designated person at the site/ preceptor.



**AHMA 201 - Medical Assistance and Clinical Procedures I. 4 Credits.**

Offered autumn. Offered at Missoula College. Skill development necessary to assist health care practitioners in all aspects of patient care in the medical office clinical setting. Includes achieving competency in prepping patients for a physical examination, charting, medication administration, basic medical laboratory skills.

**AHMA 203 - Medical Assistance and Clinical Procedures II. 4 Credits.**

Offered spring. Offered at Missoula College. Prereq., AHMA 201. This course builds on skills learned in AHMA 201 and includes body systems and pathophysiology review, and development of skills in the following areas: immunization administration, specimen collection, CLIA waived lab testing, care of lab equipment, spirometry, electrocardiogram, and phlebotomy.

**AHMA 262 - Medical Assistance and Laboratory Procedures II. 2 Credits.**

Offered at Missoula College. Prereq., AHMA 201 and AHMA 260. Coreq., AHMA 203. This course builds on skills learned in AHMA 260 and moves into areas of greater specialization. Included in this course are CLIA-waived and hematological testing, ECG, venipuncture, assisting with surgical procedures, wound care, and specialty exams.

**AHMA 280 - Medical Assisting Exam Prep. 3 Credits.**

Offered at Missoula College. This course is designed for students completing the Medical Assisting Program. The primary objective and focus will be preparing students for AMT (American Medical Technologists) for a Registered Medical Assistant Credential.

**AHMA 291 - Special Topics. 1-6 Credits.**

(R-6) Offered intermittently. Offered at Missoula College. Experimental offerings of visiting professors, experimental offerings of new courses, or one-time offerings of current topics.

**AHMA 298 - Medical Assisting Externship. 5 Credits.**

Offered spring. Offered at Missoula College. Placement in a medical office for a guided experience providing the student with a practical application of learned medical office administrative skills. Direct supervision will be the responsibility of a designated person at the site. The students will spend 20 hours per week for 10 weeks, for a total of 200 hours in assigned clinical rotations.

## Allied Health: Medical Support (AHMS)

**AHMS 129 - Introduction to Health Professions. 2 Credits.**

Offered autumn and spring. Offered at Missoula College. Students learn about the various healthcare degrees and career pathways through guest speaker presentations, discussions, and writing assignments.

**AHMS 144 - Medical Terminology. 3 Credits.**

Offered every term. Introduction to a medical word building system using Greek and Latin word roots, combining forms, suffixes, and prefixes.

**AHMS 156 - Medical Billing Fundamentals. 3 Credits.**

Offered at Missoula College. Prereq. or coreq., AHMS 220. An introduction to insurance claim processing for the major medical insurance programs. Students will be provided with a basic knowledge of CPT and ICD-10 procedural and diagnostic coding. Emphasis on completing universal insurance forms to maximize reimbursement as well as troubleshoot denied or underpaid claims.

**AHMS 160 - Beginning Procedural Coding. 3 Credits.**

Offered at Missoula College. Prereq., AHMS 156 and BIOH 112. Foundation for utilizing the CPT coding system to increase compatibility and comparability of medical data among users and providers.

**AHMS 164 - AHMS 164 Beginning Diagnosis Coding: ICD-10. 3 Credits.**

Offered at Missoula College. Prereq., AHMS 156 and BIOH 112. This course covers basic and intermediate levels of theory and application of ICD-CM principles and guidelines for coding and sequencing diagnoses and procedures. Students perform basic and intermediate coding using real health records, case studies, and scenarios. Application will focus on the use of the electronic ICD-10-CM with an overview of encoder software. This coding class involves hands-on coding, and knowledge of basic use of applicable coding books or the electronic ICD-10-CM. Currently the students take this course through Great Falls

**AHMS 191 - Special Topics. 1-6 Credits.**

(R-6) Offered intermittently. Offered at Missoula College. Experimental offerings of visiting professors, experimental offerings of new courses, or one-time offerings of current topics.

**AHMS 192 - Independent Study. 1-9 Credits.**

Offered at Missoula College. Course material appropriate to the needs and objectives of the individual student.

**AHMS 212 - CPT Coding. 3 Credits.**

Offered at Missoula College. Students must have completed AHMS 160 and AHMS 201 through Great Falls-MSU prior to taking this course. Comprehensive application of the CPT coding system to assign codes for services, supplies and equipment for comparative analysis, research and reimbursement.

**AHMS 213 - ICD-10 CODING. 3 Credits.**

Offered at Missoula College. Prereq., AHMS 164 and AHMS 201 (taken at Great Falls-MSU). Basic understanding of diagnostic and procedural coding principles should already be established. The course requires interpreting ICD-10-CM coding and reporting guidelines to sequence and assign appropriate diagnostic codes for both inpatient and various outpatient settings. Compliance issues associated with various IPPS reimbursement systems such as MS-DRGs, as well as APCs are covered. Encoder software will complement the ICD-10-CM manual in the application of coding processes. Clinical information will be interpreted from brief case studies and progress to the coding of health record excerpts.

**AHMS 216 - Pharmaceutical Products. 3 Credits.**

Offered at Missoula College. Fundamental principles of pharmacology and the implications of medication use. Includes the law as it pertains to drug use, dosage forms, routes of administration as well as the pharmacologic actions and uses of drugs.

**AHMS 220 - Medical Office Procedures. 4 Credits.**

Offered at Missoula College. An introduction to the necessary skills and qualities required to function successfully in the medical arena. Emphasis on medico-legal and ethical responsibilities, records management and financial management of the medical practice, and interpersonal communications to include patient reception, telephone techniques and appointment scheduling.

**AHMS 245 - Simulated Lab. 3 Credits.**

Offered Spring. Offered at Missoula College. This course will use computer applications and software in maintaining health information in medical records through practice utilizing HIT applications through the AHIMA Virtual Lab, to include the following applications: Master Patient Index, Electronic Health Record, Encoder, Abstracting, Chart Tracking, Release of Information.

**AHMS 252 - Computerized Medical Billing. 3 Credits.**

Offered at Missoula College. Prereq., or corequisite AHMS 156 and AHMS 220. A medical package is used to enter and update patient data, enter charges, payments and adjustments, and generate management reports, insurance forms, and patient statements.

**AHMS 270E - Medical Ethics. 3 Credits.**

Offered every term. Offered at Missoula College. Restricted to Missoula College Pre-Health and Health Professions majors and Mountain Campus Pre-Pharmacy and Pre-Nursing students. Ethical decision-making tools for addressing common ethical issues in the health professions. Gen Ed Attributes: Ethical & Human Values

**AHMS 291 - Special Topics. 1-6 Credits.**

(R-6) Offered intermittently. Offered at Missoula College. Experimental offerings of visiting professors, experimental offerings of new courses, or one-time offerings of current topics.

**AHMS 292 - Independent Study. 1-6 Credits.**

(R-6) Offered intermittently. Offered at Missoula College. Course material appropriate to the needs and objectives of the individual student.

**AHMS 294 - Friday Morning Medical Conference. 1 Credit.**

(R-4) Offered fall and spring semesters. Offered at Missoula College. Students attending will learn about a variety of concepts, medical approaches, and health-care related issues impacting health care practitioners in a variety of settings. This course is a weekly webinar presentation (video-conferencing delivery method) with reflection to follow. The material presented each semester is different, so students can take the course more than once. CR/NCR grading only.

**AHMS 298 - Medical Information Internship. 3 Credits.**

Offered at Missoula College. Students should be enrolled in final semester in the Medical Information Technology program and have a minimum grade of C in Allied Health Medical Support (AHMS) courses. On-the-job training in positions related to each student's career goal in the medical office field. This experience increases students' skills, prepares them for initial employment, and increases occupational awareness and professionalism. Students work a minimum of 135 hours at an approved site and attend a scheduled one-hour seminar. Offered for CR/NCR grading only.

## Allied Health: Radiologic Technology (AHXR)

**AHXR 101 - Patient Care in Radiology. 2 Credits.**

Offered autumn. Offered at Missoula College. All program pre-requisites must be completed, and student must be accepted into the program. Introduction to the concepts and practices necessary to provide quality patient care in the diagnostic imaging department. Course covers legal and ethical standards of care, basic nursing practices, infection control, venipuncture, and etc, as well as medications and contrast agents used in radiology.

**AHXR 121 - Radiographic Imaging I. 4 Credits.**

Offered autumn. Offered at Missoula College. All program prerequisites must be completed, and student must be accepted into the program. Introduction to physics of x-ray production. Includes introduction to field of diagnostic imaging and presents factors of image quality and exposure methods: density, contrast, recorded detail, distortion. Also includes introduction to digital imaging concepts.

**AHXR 140 - Radiographic Methods. 4 Credits.**

Offered autumn. Offered at Missoula College. All program prerequisites must be completed, and student must be accepted into the program. Course covers the knowledge and skills necessary for quality patient care during standard and specialty radiographic procedures, as well as an introduction to image evaluation.

**AHXR 141 - Radiology Lab. 1 Credit.**

Offered at Missoula College. All program pre-requisites must be completed, and student must be accepted into the program. Students will practice all patient positioning skills necessary for competency as Radiologic Technologists.

**AHXR 160 - Radiographic Methods II. 3 Credits.**

Offered spring. Offered at Missoula College. Advanced and less common radiographic procedures are introduced including fluoroscopy, surgery and various other procedures.

**AHXR 161 - Radiographic Methods II Lab. 1 Credit.**

Offered spring. Offered at Missoula College. Students will practice patient positioning skills necessary for competency as Radiologic Technologists.

**AHXR 192 - Independent Study. 1-6 Credits.**

Offered at Missoula College. Course material appropriate to the needs and objectives of the individual student.

**AHXR 195 - Radiographic Clinical I. 1-12 Credits.**

(R-20) Offered over three semesters throughout the Radiology Technology program, beginning autumn semester. Offered at Missoula College. Students will begin with an introduction to patient management and basic radiographic procedures. The final semester offers opportunities in advanced patient management skills and experience with highly skilled radiographic procedures. Each semester builds on the previous semester, always emphasizing the principles of ALARA.

**AHXR 221 - Radiographic Imaging II. 2 Credits.**

Offered spring. Offered at Missoula College. Offers students more technical and detailed information on the use of image receptor systems, processing principles, and imaging modalities used in radiology.

**AHXR 225 - Radiobiology and Radiation Protection. 2 Credits.**

Offered spring. Offered at Missoula College. Principles of radiation protection and radiobiology. Topics include the effects of ionizing radiation on body tissues, protective measures for limiting exposure to the patient and personnel, and radiation monitoring devices.

**AHXR 270 - Radiographic Registry Review. 2 Credits.**

Offered autumn. Offered at Missoula College. An overview of imaging concepts as a review for the national certification test. Topics include a systematic approach for image evaluation, patient care, radiation protection and the physics of radiographic imaging.

**AHXR 274 - Cross Sectional Anatomy. 3 Credits.**

Course offered online spring semester. Offered at Missoula College. Students must be program graduates or ARRT certified with a current state license to register for the CT courses. This course will cover sectional anatomy (axial, sagittal and coronal planes), contrast media (types, contraindications, administration), imaging processes (scout acquisition and methods, parameter selection, protocol modification), and special procedures (reformatting, 3-D rendering, biopsies/drains, screening).

**AHXR 275 - Physics and Instrumentation. 2 Credits.**

Course offered online spring semester. Offered at Missoula College. Students must be program graduates or ARRT certified with a current state license to register for the CT courses. This course will cover information specific to ARRT guidelines in preparation for the Computed Tomography Exam. The course will be broken down in to the following sections: patient assessment and preparation, contrast administration, radiation safety, and dosimetry.

**AHXR 291 - Special Topics. 1-6 Credits.**

(R-6) Offered at Missoula College. Experimental offerings of visiting professors, experimental offerings of new courses, or one-time offerings of current topics.

**AHXR 292 - Independent Study. 1-6 Credits.**

Course material appropriate to the needs and objectives of the individual student.

**AHXR 295 - Radiographic Clinical II. 3-24 Credits.**

(R-22) Offered over two semesters in the Radiology Technology program: summer semester for 12 credits and fall semester for 10 credits. Offered at Missoula College. Students will begin with an introduction to patient management and basic radiographic procedures. The final semester offers opportunities in advanced patient management skills and experience with highly skilled radiographic procedures. Each semester builds on the previous semester, always emphasizing the principles of ALARA.

**AHXR 298 - Internship. 1 Credit.**

Offered at Missoula College. Extended classroom experience which provides practical application of classroom learning during placements off campus.

## Allied Health: Respiratory Care (AHRC)

**AHRC 129 - Patient Care & Assessment. 4 Credits.**

Offered autumn. Prereq., BIOH 201N. Offered at Missoula College. Restricted to students in the Respiratory Care program. Introduction to nursing-related knowledge and skills with emphasis on application of microbiology to aseptic technique. Assessment of the respiratory system with cardiopulmonary diagnostic and laboratory tests interpretation. Observation and interpretation of overall patient condition is integrated throughout the course.

**AHRC 131 - Respiratory Care Fundamentals I. 5 Credits.**

Offered autumn. Offered at Missoula College. Restricted to students in the Respiratory Care program. Orientation to basic respiratory care science including the application of principles of physics and chemistry. Emphasis on theory, operation and troubleshooting of equipment used at the entry level of practice. Introduction to airway pharmacology. Principles of basic chemistry introduced with an application to pharmacology as related to the pulmonary system.

**AHRC 132 - Respiratory Care Fundamentals II. 3 Credits.**

Offered spring. Offered at Missoula College. Prereq., AHRC 131. Restricted to students in the Respiratory Care program. Study of the indications, rationale, methods, instrumentation, and analysis of Blood Gases. Emphasis will be placed on the physiology and clinical implications of acid-base abnormalities. Cardiovascular and related pharmacology studied in preparation for ACLS and ventilator management. Microbiology in relation to equipment processing, pulmonary rehabilitation, respiratory care in alternative settings, patient education, and health promotion.

**AHRC 150 - Respiratory Care Lab I. 1 Credit.**

Offered autumn. Offered at Missoula College. Restricted to students in the Respiratory Care program. Basic clinical competencies taught in AHRC 131 are studied in a laboratory setting. Peer and instructor review of competencies included. Students earn their BLS certification. Graded CR/NCR.

**AHRC 160 - Pharmacology for Respiratory Diseases. 2 Credits.**

Offered spring. Offered at Missoula College. Restricted to students in the Missoula College Respiratory Care program. This course covers the concepts and principles of pharmacology required in the practice of respiratory care, including medications, actions, dosages, routes of administration, and adverse reactions. Topics include patient education of medication delivery devices, patient monitoring devices, utilization techniques, and the standards for therapeutic efficacy in relation to diseases and conditions of the cardiopulmonary system.

**AHRC 191 - Special Topics. 1-6 Credits.**

Offered at Missoula College. Experimental offerings of visiting professors, experimental offerings of new courses, or one-time offerings of current topics.

**AHRC 231 - Respiratory Critical Care. 4 Credits.**

Offered spring. Offered at Missoula College. Restricted to students in the Respiratory Care program. Continuation of AHRC 131. Physiology, indication, contraindications, and application of mechanical ventilation. Emphasis on patient assessment, monitoring, stabilization and weaning during assisted pressure breathing. Analysis of the various modes of ventilation, including optimizing the patient-ventilator interface in the adult through various advanced airway techniques.

**AHRC 232 - Respiratory Pathology & Disease. 3 Credits.**

Offered spring. Offered at Missoula College. Restricted to students in the Respiratory Care program. Special lectures in medicine and disease as related to the cardiopulmonary system. Emphasis on recognition of signs and symptoms of disease and implications for treatment through the study of selected case studies.

**AHRC 235 - Cardiopulmonary Anatomy & Physiology. 3 Credits.**

Offered spring. Offered at Missoula College. Restricted to students in the Respiratory Care program. Principles of physiologic chemistry are introduced and applied to the macro and micro anatomy of the cardiopulmonary system with a focus on structure and function. Application made to pathology and assessment of patients receiving mechanical ventilation.

**AHRC 243 - Perinatal & Pediatric Respiratory Care. 3 Credits.**

Offered autumn. Offered at Missoula College. Restricted to students in the Respiratory Care program. Study of perinatal and pediatric respiratory care with emphasis on assessment, resuscitation and mechanical ventilation of the neonate and pediatric patient. The theory of Neonatal Resuscitations (NRP) will be presented. Neonatal and pediatric diseases will be studied.

**AHRC 250 - Respiratory Care Lab II. 2 Credits.**

Offered spring. Offered at Missoula College. Restricted to students in the Respiratory Care program. A continuation of AHRC 150 with emphasis on adult critical care. Clinical competencies taught in AHRC 231 and AHRC 235 are studied in a laboratory setting. Peer and instructor review of competencies included. Graded CR/NCR.

**AHRC 252 - Respiratory Care Review. 2 Credits.**

Offered autumn. Offered at Missoula College. Restricted to students in the Respiratory Care program. A review of respiratory care in preparation for credentialing exams. Students must take an Entry Level Self-Assessment Exam, a Written Registry Self-Assessment Exam, and a Clinical Simulation Self-Assessment Exam.

**AHRC 255 - Clinical Experience I. 4 Credits.**

Offered spring. Offered at Missoula College. Restricted to students in the Respiratory Care program. Emphasis on the student directly performing basic clinical skills in a patient care setting to include hospitals, home care, and pulmonary function laboratories. Students also participate in physician rounds. Graded CR/NCR.

**AHRC 260 - Respiratory Care Lab III. 1 Credit.**

Offered summer. Offered at Missoula College. Restricted to students in the Respiratory Care program. Students study principles and theory of advanced life support. Peer and instructor review are included. Students will be Advanced Cardiac Life Support (ACLS) and Pediatric Advanced Life Support (PALS) certified at the end of this class. Graded CR/NCR.

**AHRC 265 - Clinical Experience II. 5 Credits.**

Offered summer. Offered at Missoula College. Restricted to students in the Respiratory Care program. Continuation of clinical skills learned in AHRC 255. Introduction to adult critical care along with sleep and cardiac diagnostics. Students also participate in physician rounds. Graded CR/NCR.

**AHRC 270 - Respiratory Care Lab IV. 1 Credit.**

Offered autumn. Offered at Missoula College. Restricted to students in the Respiratory Care program. Emphasis on neonatal and pediatric critical care. Clinical competencies introduced in AHRC 243 are studied. Peer and instructor review of competencies are included. Graded CR/NCR.

**AHRC 275 - Clinical Experience III. 6 Credits.**

Offered autumn. Offered at Missoula College. Restricted to students in the Respiratory Care program. Emphasis on neonatal and pediatric critical care. Clinical competencies introduced in AHRC 243 are studied. Peer and instructor review of competencies are included. Graded CR/NCR.

**AHRC 291 - Special Topics. 1-8 Credits.**

(R-8) Offered intermittently. Offered at Missoula College. Experimental offerings of visiting professors, experimental offerings of new courses, or one-time offerings of current topics.

**AHRC 292 - Independent Study. 1-6 Credits.**

(R-6) Offered at Missoula College. Course material appropriate to the needs and objectives of the individual student.

## Allied Health: Surgical Technology (AHST)

**AHST 101 - Introduction to Surgical Technology. 3 Credits.**

Offered spring. Offered at Missoula College. Restricted to students in the Surgical Technology program. Provides an orientation to the scrub and circulatory roles of the surgical technologist in the preoperative, intraoperative and postoperative periods. Entry level skills and theories are emphasized.

**AHST 115 - Surgical Lab I. 2 Credits.**

Offered spring. Offered at Missoula College. Restricted to students in the Surgical Technology program. Demonstration of sterile technique in the campus lab, various skills, and their application in the operating room. Graded CR/NCR.

**AHST 154 - Surgical Pharmacology. 3 Credits.**

Offered spring. Offered at Missoula College. Prereq., M 105 or 115 or M 121 or M 151 or M 171. Restricted to students in the Surgical Technology program. Basic overview of the medications commonly used before, during, and after a surgical procedure.

**AHST 191 - Special Topics. 1-9 Credits.**

(R-9) Offered intermittently. Offered at Missoula College. Experimental offerings of visiting professors, experimental offerings of new courses, or one-time offerings of current topics.

**AHST 200 - Operating Room Techniques. 5 Credits.**

Offered autumn. Offered at Missoula College. Prereq., AHST 101, AHST 115, and AHST 154. Restricted to students in the Surgical Technology program. Focus is on the scrub and circulator roles of the surgical technologist in the preoperative, intraoperative, and postoperative periods, more complex skills and theories, and the impact of new technologies in the 21st century operating room.

**AHST 201 - Surgical Procedures I. 4 Credits.**

Offered autumn. Offered at Missoula College. Prereq., AHST 101, AHST 115, and AHST 154. Restricted to students in the Surgical Technology program. A study of surgical procedures following the patient through the preoperative, intraoperative, and post-operative stages of specific surgical specialties.

**AHST 202 - Surgical Procedures II. 5 Credits.**

Offered spring. Offered at Missoula College. Restricted to students in the Surgical Technology program. A study of surgical procedures following the patient through the preoperative, intraoperative, and postoperative stages of specific surgical specialties.

**AHST 215 - Surgical Lab II. 2 Credits.**

Offered autumn. Offered at Missoula College. Restricted to students in the Surgical Technology program. Demonstration of more complex skills in the campus lab, including assistant circulating, and their applications in the operating room. Graded CR/NCR.

**AHST 250 - Surgical Clinical I. 4 Credits.**

Offered autumn. Offered at Missoula College. Restricted to students in the Surgical Technology program. Perioperative experience in minor surgical procedures through a supervised clinical hospital rotation.

**AHST 251 - Surgical Clinical II. 5 Credits.**

Offered spring. Offered at Missoula College. Restricted to students in the Surgical Technology program. Perioperative experience in major surgical procedures through a supervised clinical hospital rotation.

**AHST 298 - Surgical Internship. 5 Credits.**

Offered spring. Offered at Missoula College. Restricted to students in the Surgical Technology program. Capstone experience in the perioperative role in preparation for initial employment, increasing occupational awareness and professionalism. Students take call for emergency surgeries alongside experienced hospital staff.

## Anthropology (ANTY)

**ANTY 101H - Anthropology & the Human Experience. 3 Credits.**

Offered autumn and spring. Offered intermittently in summer. A survey of anthropology which introduces the fundamental concepts, methods and perspectives of the field. The description and analysis of human culture, its growth and change. The nature and functions of social institutions. Gen Ed Attributes: Historical Studies, Cultural & International Diversity



**ANTY 102H - Intro to South & S. East Asia. 3 Credits.**

Offered intermittently. An introduction to South and Southeast Asian regions, cultures, societies, and histories, with particular emphasis on artistic, religious and literary traditions from prehistory to the present. Countries include India, Indonesia, Vietnam, Thailand, Sri Lanka, Pakistan and Nepal. An overview approach with different materials and emphases. Gen Ed Attributes: Historical Studies, Cultural & International Diversity

**ANTY 103H - Intro Latin American Studies. 3 Credits.**

Multidisciplinary survey and introduction to Latin America from pre-Columbian times to the present. Gen Ed Attributes: Historical Studies, Cultural & International Diversity

**ANTY 104 - Ancient Migrations. 3 Credits.**

Offered intermittently. An exploration of migrations in human prehistory and history as known from DNA studies, the archaeological record, historical linguistics, the human fossil record and history. How these migrations have impacted the culture, institutions, and biology of contemporary societies and populations.

**ANTY 122S - Race and Minorities. 3 Credits.**

Offered autumn. Analysis of the development and concept of race as a social category and the processes of cultural change within and between ethnic groups.

Gen Ed Attributes: Social Sciences, Democracy and Citizenship

**ANTY 126 - Anthropology and Global Health. 3 Credits.**

Offered intermittently. This course will examine a set of global health problems rooted in rapidly changing social structures, cultural beliefs and practices, and environmental and biological realities that transcend geopolitical and other imagined boundaries. Students will explore case studies (addressing Ebola, tuberculosis, mental illness, and other topics) and a multidisciplinary literature (including anthropology, epidemiology, history, and biomedicine) centering on how biosocial perspectives might provide a foundation to improve health and well-being on a global level.

**ANTY 133X - Food and Culture. 3 Credits.**

Offered spring. Examination of the ways culture shapes the satisfaction of a biological need; food production, preparation, choices, customs, taste, taboos, beverages, spices and food distribution around the globe. Gen Ed Attributes: Cultural & International Diversity

**ANTY 141H - The Silk Road. 3 Credits.**

Offered autumn and spring. Introduction to the study of the human communities, cultures, and economies in Central and Southwest Asia along the ancient four thousand mile-long Silk Road.

Gen Ed Attributes: Historical Studies, Cultural & International Diversity

**ANTY 150X - Archaeology of Yellowstone: 11,000 Years of Native Americans in Yellowstone National Park. 3 Credits.**

Offered autumn. Introduces students to the Native American prehistory and history of Yellowstone National Park, from 11,000 years ago to the present. The focus is on archaeological sites in the various areas of the park, including lakes, mountains, obsidian sources, rivers, and geyser basins.

Gen Ed Attributes: Cultural & International Diversity

**ANTY 191 - Special Topics. 1-6 Credits.**

(R-6) Offered intermittently. Experimental offerings of visiting professors, experimental offerings of new courses, or one-time offerings of current topics.

**ANTY 192 - Independent Study. 1-6 Credits.**

(R-6) Course material appropriate to the needs and objectives of the individual student.

**ANTY 198 - Internship. 1-6 Credits.**

Offered intermittently. Extended classroom experience that provides practical application of classroom learning during placements off campus. Prior approval must be obtained from the faculty supervisor. A maximum of 6 credits of Internship (198, 298, 398, 498) may count toward graduation.

**ANTY 201 - Anthropology for Majors: Understanding the Four-Field Approach. 3 Credits.**

Offered spring. This course is designed as an advanced low-level undergraduate overview of the four-field approach to the study of anthropology. Students will learn about each of the four fields of Anthropology, including Archaeology, Biological Anthropology, Cultural Anthropology, and Linguistics. While this course is introductory, it will employ innovative curriculum for students who are majoring in anthropology. Each semester, faculty will use one or more major anthropology research issues as a guiding matrix for the dissemination of anthropological concepts. The course is intended for low-level undergraduate students either majoring in anthropology or considering a major in the discipline.

**ANTY 208 - Anthropological Statistics. 3 Credits.**

An introduction to the statistical methods and reasoning used by anthropologists. Course requires use of a Windows or Macintosh computer and will utilize free statistics software the student must run on their computer.

**ANTY 210N - Introduction to Biological Anthropology. 3 Credits.**

Offered autumn. An introduction to human evolutionary biology including processes of evolution, primate studies, hominin paleontology, and human variation.

Gen Ed Attributes: Natural Science

**ANTY 213N - Biological Anthropology Lab. 1 Credit.**

Offered autumn. Prereq., or corequisite ANTY 210N. This lab course allows students to more deeply explore the concepts and materials covered in Introduction to Biological Anthropology. Students will engage in lab based activities involving human genetics and processes of evolution, biology and behavior of non-human primates, human evolution, and modern human adaptation and variation.

Gen Ed Attributes: Natural Science Lab Course, Natural Science

**ANTY 220S - Culture & Society. 3 Credits.**

Offered autumn and spring. Study of social organization of non-western societies; emphasis on variations in ecology, social structure, economic, political and religious beliefs and practices.

Gen Ed Attributes: Social Sciences, Cultural & International Diversity

**ANTY 241H - Central Asian Culture and Civilization. 3 Credits.**

Offered autumn even numbered years. Introduction to Central Asia's history, culture and ways of thinking. Focus on the political and social organization of Central Asia and cultural changes as expressed in art and interactions with China, India and the Middle East.

Gen Ed Attributes: Historical Studies, Cultural & International Diversity

**ANTY 250S - Intro to Archaeology. 3 Credits.**

Offered autumn and spring. What archaeologists do and how they reconstruct past human cultures. Methodological and theoretical approaches to understanding and explaining past human societies.

Gen Ed Attributes: Social Sciences

**ANTY 251 - Foundations of Civilization. 3 Credits.**

Focus on the worldwide evolution of human society from Stone Age hunter-gatherers to the beginnings of modern civilization. Approached through the colorful and exciting world of archaeologists and the sites they excavate.



**ANTY 254X - Archaeological Wonders of the World. 3 Credits.**

Offered spring even numbered years. Prereq., WRIT 101 or WRIT 201. This course highlights the classical civilizations of the ancient world, fields such as Egyptology and Classical Archaeology, and the major archaeological discoveries which are associated with them.  
Gen Ed Attributes: Writing Across the Curriculum, Cultural & International Diversity

**ANTY 291 - Special Topics. 1-6 Credits.**

(R-6) Offered intermittently. Experimental offerings of visiting professors, experimental offerings of new courses, or one-time offerings relating to current problems or new developments in the discipline.

**ANTY 310 - Human Variation. 3 Credits.**

Offered autumn. Prereq., ANTY 210N. Introduction to human biological variation, and to the methods and theories that are used to explain the distribution of variable features.

Gen Ed Attributes: Writing Across the Curriculum

**ANTY 312 - Human Evolution. 3 Credits.**

Offered autumn, odd-numbered years. Prereq., ANTY 210N. An exploration of the fossil and archaeological records of the evolution of human beings, and of current methods and theories used in interpreting these data.

**ANTY 314 - Principles of Forensic Anthropology. 3 Credits.**

Offered autumn. Prereq., ANTY 210N. A study of techniques for recovering skeletal material, identifying and interpreting human skeletal remains, keeping records, interacting with the law enforcement system and documenting human rights abuses.

**ANTY 323X - Native Peoples of Montana. 3 Credits.**

Offered spring. The history and culture of the Indian tribes in Montana.  
Gen Ed Attributes: Cultural & International Diversity

**ANTY 326E - Indigenous Peoples & the Ethics of Development. 3 Credits.**

Offered spring odd-numbered years. This class will examine the impact of global development on tribal and Indigenous peoples. Discussion topics will include ethical issues, land, health, employment, and cultural change caused by global development as well as explore how and why Indigenous societies resist or adapt to imposed changes.

Gen Ed Attributes: Ethical & Human Values

**ANTY 330X - Peoples and Cultures of World. 3 Credits.**

(R-9) Offered autumn and spring. Study of the peoples of various geographic regions and their cultures.

Gen Ed Attributes: Cultural & International Diversity

**ANTY 336 - Myth, Ritual and Religion. 3 Credits.**

Offered intermittently. Theories and practices concerning supernatural phenomena, and the comparative study of world religions and cosmological traditions of indigenous peoples throughout the world.

**ANTY 347 - Central Asia and Its Neighbors. 3 Credits.**

Offered intermittently. Analysis of the human communities and cultures of Central and Southwest Asia, with particular emphasis on the importance of relationships with neighboring countries and civilizations since ancient times.

**ANTY 351H - Archaeology of North America. 3 Credits.**

Offered autumn. The origins, backgrounds and development of Pre-Columbian American peoples and cultures.

Gen Ed Attributes: Historical Studies, Cultural & International Diversity

**ANTY 352X - Archaeology of Montana. 3 Credits.**

Offered spring. The origins, distributions and development of aboriginal cultures in Montana and surrounding regions.

Gen Ed Attributes: Cultural & International Diversity

**ANTY 353 - PaleoIndian Archaeology. 3 Credits.**

Offered spring or winter, even-numbered years. Examines archaeological, linguistic, biological and skeletal data to determine from where and when Native Americans arrived in North America. Examines archaeological sites from such diverse places as Montana, Siberia, Virginia, and Chile to answer the most intriguing question in contemporary American archaeology today: how, when and from where did people first arrive in the Americas?

**ANTY 354H - Mesoamerican Prehistory. 3 Credits.**

Offered spring odd-numbered years. The development of civilization and prehistoric states in the New World. Prehistoric lifeways and the effects of European contact on these cultures.

Gen Ed Attributes: Historical Studies

**ANTY 391 - Special Topics. 1-9 Credits.**

(R-9) Offered intermittently. Experimental offerings of visiting professors, experimental offerings of new courses, or one-time offerings of current topics.

**ANTY 398 - Internship. 1-6 Credits.**

(R-6) Offered intermittently. Extended classroom experience that provides practical application of classroom learning during placements off campus. Prior approval must be obtained from the faculty supervisor. A maximum of 6 credits of Internship (198, 298, 398, 498) may count toward graduation.

**ANTY 400 - History of Anthropology. 3 Credits.**

Offered intermittently. Restricted to majors and minors in Anthropology. The development of theory and method in cultural anthropology to the present. Various archaeological, ethnological and socio-psychological theories in the light of historical anthropology. Level: undergraduate and graduate.

**ANTY 401 - Anthropological Data Analysis. 3 Credits.**

Restricted to Anthropology majors and minors. A general introduction and survey of anthropological research methods to conduct fieldwork, data collection, and data analysis, including ethical issues and decision-making in the profession and public presentation of research. Level: Undergraduate/Graduate.

**ANTY 403 - Public Anthropology. 3 Credits.**

Offered spring odd-numbered years. Prereq., ANTY 101H or ANTY 220S. Focus on the public accountability, transparency and the value and effects of anthropological research for local, national, and transnational communities. Level: Undergraduate

**ANTY 404 - Anthropological Museology. 3 Credits.**

Offered spring even-numbered years. Introduction to anthropological museums, museum work and museum theory. Level: undergraduate and graduate.

**ANTY 406X - Contemporary Issues of Indigenous Peoples. 3 Credits.**

Offered autumn. An examination of the major issues that affect the contemporary experiences of Indigenous Peoples of the Americas, and other global communities. Level: undergraduate and graduate.  
Gen Ed Attributes: Cultural & International Diversity

**ANTY 409 - Preceptorship in Anthropology. 1-3 Credits.**

(R-6) Offered autumn and spring. Prereq., ANTY 210N or ANTY 220S or ANTY 250S. Assisting a faculty member by tutoring, grading objective exams, conducting review sessions, and carrying out other class-related responsibilities. Open to juniors, senior, and graduate students with consent of the faculty member with whom they serve. Proposals must be approved by department chair. Level: undergraduate and graduate.

**ANTY 412 - Osteology. 4 Credits.**

Offered autumn. Prereq., ANT 314. A detailed examination of the human skeleton with an emphasis on identifying individual bones and their structures. Specifically extended to fragmentary skeletal elements. Direct hands-on experience required. Level: Undergraduate/Graduate

**ANTY 413 - Forensic and Mortuary Archaeology. 3 Credits.**

Offered intermittently. Prereq., ANT 314. Practical approaches to locating, documenting and recovering human skeletal remains, including surface scatters and burials. Emphasis on interpretations of evidence for recovery scene formation and mortuary behavior. Level: undergraduate and graduate.

**ANTY 414 - Forensic Anthropology and Bioarchaeology. 3 Credits.**

Offered autumn. Prereq., ANT 210N and either CJUS 125N or CJUS 488. An exploration of the principles, theories, and applications of forensic anthropology and bioarchaeology. The focus is on how information about a person's identity and the lifeways of the society in which they lived is inferred from human remains in the criminal investigation context and the archaeological context. Level: undergraduate and graduate.

**ANTY 415 - Emergence of Modern Humans. 3 Credits.**

Offered intermittently. Prereq., ANT 210N. An exploration of the emergence of "modern" humans and their relationships with Neanderthals. Exploration of what it means to be "a modern human" through an examination of human evolutionary history. Level: undergraduate and graduate.

**ANTY 418 - Evolution and Genetic Variation in Human Populations. 3 Credits.**

Offered intermittently. Prereq. ANT 310. Human genetic variation examined from a molecular perspective. Emphasis on the role of infectious disease and other factors as a selective factor in human evolution and exploration of the implications of these associations for human genetic variation. Level: undergraduate and graduate.

**ANTY 422 - Mind, Culture, and Society. 3 Credits.**

Offered intermittently. The study of socialization, personality, cognition, and mental health cross-culturally. Level: undergraduate and graduate.

**ANTY 423 - Culture and Identity. 3 Credits.**

Offered intermittently. The comparative study of identity formation along and across racial, ethnic, and ethno-national lines. Emphasis on issues of ethnogenesis, cultural resistance, transformation, domination, colonialism as well as sharing to understand both the cultural commonalities and differences in identity formation. Level: undergraduate and graduate.

**ANTY 427 - Anthropology of Gender. 3 Credits.**

Offered intermittently. Comparative study of the history and significance of gender in social life. Level: undergraduate and graduate.

**ANTY 430 - Social Anthropology. 3 Credits.**

Offered intermittently. Prereq., WRIT 101 or WRIT 201. Seminar style senior capstone course for cultural anthropology students. This course focuses on bringing theory and methods together in written and visual ethnography. Level: undergraduate and graduate.  
Gen Ed Attributes: Writing in the Disciplines

**ANTY 431 - Ethnographic Field Methods. 3 Credits.**

Offered intermittently. Prereq., WRIT 101 or WRIT 201. Introduction to socio-cultural anthropological methods including participant observation, interviewing and narrative techniques and analysis of qualitative data. Level: undergraduate and graduate.  
Gen Ed Attributes: Writing in the Disciplines

**ANTY 433 - Indigenous Global Health & Healing. 3 Credits.**

The course examines traditional and contemporary uses of medicinal plants and spiritual healing within Indigenous North American societies. The class also examines the impact Indigenous people's knowledge of medicinal plants has had on non-Indigenous people's health as well as the field of medicine. Level: undergraduate and graduate.

**ANTY 442 - Cities and Landscapes of Central Asia. 3 Credits.**

Offered intermittently. Analysis of the main centers of civilization and culture, rich sites and monuments of Central Asia and Southwest Asia since ancient times. Level: undergraduate and graduate.

**ANTY 444 - Artistic Traditions of Central Asia. 3 Credits.**

Offered intermittently. Analysis of the study of human artistic creativity and scientific innovations of various cultures in Central and Southwest Asia since ancient times. Level: undergraduate and graduate.

**ANTY 450 - Archaeological Theory. 3 Credits.**

Offered autumn odd-numbered years. Prereq., WRIT 101 or WRIT 201; and ANT 250S. Historical trends and current major theories and methods in archaeology. Co-convenes with ANT 550. Level: Undergraduate.  
Gen Ed Attributes: Writing in the Disciplines

**ANTY 451 - Cultural Resource Management. 3 Credits.**

Offered autumn, odd-numbered years and intermittently in summer. Introduction to the laws and practice of cultural resource/heritage property management. Focus on the management of archaeological sites, historic structures, and traditional cultural places due to federal laws. Emphasis is on laying foundation of CRM practices for students interested in pursuing it as a potential career. Level: undergraduate and graduate.

**ANTY 452 - GIS in Archaeology. 3 Credits.**

Offered intermittently. Prereq., ANT 250S. Anthropological and archaeological data acquisition, management, and analysis using Geographic Information Systems (GIS) tools and techniques. Level: undergraduate and graduate.

**ANTY 454 - Lithic Technology. 3 Credits.**

Offered autumn odd-numbered years. Analysis of stone artifacts and debitage. Level: undergraduate and graduate.

**ANTY 455 - Artifact Analysis. 3 Credits.**

Offered spring. Prereq., WRIT 101 or WRIT 201; and ANT 250S. Laboratory approaches and techniques for analyzing material culture from technological, stylistic, and chronological perspectives. Level: undergraduate and graduate.  
Gen Ed Attributes: Writing in the Disciplines

**ANTY 456 - Historical Archaeology. 3 Credits.**

Offered spring. Prereq., ANT 250S. Understanding and interpreting the past through historical archaeological remains, methods, and theories. Focuses on historical archaeological sites and topics from the American West, but also examines the field's global perspective. Level: undergraduate and graduate.

**ANTY 458 - Archaeology of Hunter-Gatherers. 3 Credits.**

Offered autumn even-numbered years. Introduction to the archaeological study of hunter-gatherer societies. Primary emphasis on archaeological method and theory. Level: undergraduate and graduate.

**ANTY 459 - Archaeology of the Arctic and Subarctic. 3 Credits.**

Introduction to the study of Arctic and Subarctic archaeology emphasizing the Pleistocene and Holocene prehistory of North America and eastern Siberia. Understanding of methodological problems associated with archaeology in a northern context, the evolution of Inuit, Eskimo, Aleut and Athapaskan cultures, and hunter-gatherer adaptations to northern interior and coastal environments. Level: undergraduate and graduate.

**ANTY 465 - Archaeology of the Southwest United States. 3 Credits.**

The development of the prehistoric communities in the southwestern United States from ancient times to the dawn of history in the area. Level: undergraduate and graduate.

**ANTY 466 - Archaeological Survey. 1-12 Credits.**

(R-12) Prereq., ANTY 250S. Offered autumn. A field course in Montana archaeology. Level: undergraduate and graduate.

**ANTY 467 - Archaeological Field School. 3-12 Credits.**

(R-12) Offered summer and/or winter. Prereq., ANTY 250S. Provides students with a well-rounded experience in archaeological field methods.

Field schools will typically occur at archaeological site locations away from campus. During the archaeological field experience, students may learn methods of excavation, survey, research, and analysis to facilitate their transition to careers as professional archaeologists. Level: undergraduate and graduate.

**ANTY 476 - Methods for Native Languages. 3 Credits.**

(R-6) Offered spring. In an effort to highlight promising methodologies that will advance the success of Native language acquisition and instruction, students will be exposed to an innovative methodology while being instructed in an Indigenous language. Level: undergraduate and graduate.

**ANTY 491 - Special Topics. 1-9 Credits.**

(R-9) Offered intermittently. Experimental offerings of visiting professors, experimental offerings of new courses, or one-time offerings of current topics. Level: undergraduate and graduate.

**ANTY 492 - Independent Study. 1-6 Credits.**

(R-6) Offered every term. Course material appropriate to the needs and objectives of the individual student. Level: undergraduate and graduate.

**ANTY 494 - Seminar/Workshop. 1-9 Credits.**

(R-9) Offered intermittently. A review and discussion of current research. Topics vary.

**ANTY 495 - Field Experience/Practicum. 1-12 Credits.**

(R-12) Offered intermittently. Organized field experience or language practicum in anthropology. Level: undergraduate and graduate.

**ANTY 498 - Internship. 1-6 Credits.**

(R-6) Practical application of classroom learning through internship in a number of areas such as museology, cultural resource management and forensics. Level: undergraduate.

**ANTY 500 - Contemporary Anthropological Thought. 3 Credits.**

Offered intermittently. Restricted to graduate students in Anthropology. A review of major contributions to current anthropological theory, with an emphasis on the application of theory to anthropological problems. Significant advances in general theory, symbolic anthropology, critical theory, cultural studies, and postmodernism. Level: Graduate

**ANTY 508 - Applied Anthropological Statistics. 3 Credits.**

Offered spring odd-numbered years. Restricted to graduate students in Anthropology. A review of simple and multivariate, descriptive, and inferential statistical methods and their application to the students' own thesis or dissertation data. Course requires use of a Windows or Macintosh computer and will use free software that students must run on their computers.

**ANTY 510 - Seminar on Human Variation & Evolution. 3 Credits.**

(R-6) Offered autumn. Various topics related to genetic evidence of human biological evolution, morphological and genetic diversity of modern humans, and problems of "race". Level: Graduate

**ANTY 512 - Advanced Forensic Anthropology. 3 Credits.**

(R-6) Offered spring. Review of traditional methods and exploration of new methods of skeletal analysis, as applied to cases from the forensic collection. Level: Graduate

**ANTY 513 - Seminar in Bioarchaeology & Skeletal Biology. 3 Credits.**

(R-6) Offered spring. Theoretical and methodological approaches to the analysis of human skeletal remains derived from archaeological contexts. Demography, health and disease, diet and nutrition, growth, activity patterns, and measures of biological relatedness are interpreted within a biocultural framework. Level: Graduate

**ANTY 515 - Theory & Methods in Bioanthropology. 3 Credits.**

Offered autumn. A detailed review of the body of theory that is foundational for the study of human evolution, human variation, bioarchaeology, forensic anthropology, and primatology, along with a consideration of major methods used to analyze data in these fields. Level: Graduate

**ANTY 520 - Seminar in Contemporary Ethnography. 3 Credits.**

Offered intermittently. A review and discussion of current ethnographic research. Level: Graduate

**ANTY 550 - Seminar in Archaeology. 3 Credits.**

Offered autumn odd-numbered years. A review and discussion of current research. Topics vary. Co-convenes with ANTY 450. Level: Graduate

**ANTY 551 - Seminar Historical Archaeology. 3 Credits.**

Offered autumn odd-numbered years. An exploration of theories, methods, and literature in historical archaeology. Level: Graduate

**ANTY 553 - Evolutionary Archaeology. 3 Credits.**

Offered autumn even-numbered years. Examination of method and theory in Darwinian evolutionary archaeology. Seminar assignments and discussions focus on human behavioral ecology, cultural transmission, and macroevolution. Level: Graduate

**ANTY 590 - Research. 1-10 Credits.**

(R-10) Offered every term. Directed individual research and study appropriate to the background and objectives of the student. Level: Graduate

**ANTY 591 - Special Topics. 1-9 Credits.**

(R-24) Offered intermittently. Experimental offerings of visiting professors, experimental offerings of new courses, or one-time offerings of current topics. Level: Graduate

**ANTY 592 - Independent Study. 1-9 Credits.**

(R-9) Offered every term. Course material appropriate to the needs and objectives of the individual student. Level: Graduate

**ANTY 594 - Seminar/Workshop. 1-9 Credits.**

(R-9) Offered intermittently. A review and discussion of current research. Topics vary.

**ANTY 598 - Internship. 1-6 Credits.**

(R-6) Offered intermittently. Restricted to graduate students in Anthropology. Practical application of classroom learning through internship in a number of areas such as museology, cultural resource management and forensics. Written reports are required. Level: Graduate

**ANTY 599 - Thesis/Professional Project. 1-10 Credits.**

(R-10) Offered every term. Restricted to graduate students in Anthropology. Preparation of a thesis, manuscript, or professional project based on research for presentation and/or publication. Level: Graduate

**ANTY 600 - Issues in Cultural Heritage. 3 Credits.**

Offered autumn. Doctoral dissertation research activities. A review of the range of topics that fall under the umbrella of cultural heritage and a review of theory and practice in one or more of these topics. Level: Graduate

**ANTY 601 - Research Design & Proposal Preparation. 3 Credits.**

Offered spring. Restricted to graduate students in Anthropology. Covers the development of anthropological research designs and proposals. Level: Graduate

**ANTY 602 - Cultural Heritage Policy & Practice. 3 Credits.**

Offered spring odd-numbered years. Restricted to graduate students in Anthropology. Exploration of critical issues in cultural heritage policy emphasizing the regulatory basis for federal CRM, public anthropology, and indigenous people's issues. Hands-on training in the design and production of federal planning documents. Level: Graduate

**ANTY 690 - Advanced Research. 1-6 Credits.**

(R-6) Offered every term. Directed individual research and study appropriate to the background and objectives of the student. Level: Graduate

**ANTY 694 - Seminar in Cultural Heritage. 1-6 Credits.**

(R-6) Offered intermittently. A review and discussion of current research. Topics vary. Level: Graduate

**ANTY 699 - Dissertation. 1-10 Credits.**

(R-10) Offered every term. Doctoral dissertation research activities. Level: Graduate

## Applied Arts and Sciences (AASC)

**AASC 298 - Internship. 1-6 Credits.**

Offered intermittently. Extended classroom experience that provides practical application of classroom learning during placements off campus. Prior approval must be obtained from the faculty supervisor. A maximum of 6 credits of Internship (198, 298, 398, 498) may count toward graduation.

## Arabic (ARAB)

**ARAB 101 - Elementary Modern Standard Arabic I. 4 Credits.**

Offered autumn. This course brings students the opportunity to learn Arabic via a communicative approach, where the emphasis is placed on the functional use of the Arabic Language. Active skills are listening, speaking, reading, and writing, plus basic cultural study.

**ARAB 102 - Elementary Modern Standard Arabic II. 4 Credits.**

Offered spring. Prereq., ARAB 101. A continuation of ARAB 101. Students learn Arabic via a communicative approach, where the emphasis is placed on the functional use of the Arabic Language. Active skills are listening, speaking, reading, and writing, plus basic cultural study. Gen Ed Attributes: Language Requirement

**ARAB 191 - Special Topics. 1-6 Credits.**

(R-6) Offered intermittently. Experimental offerings of visiting professors, experimental offerings of new courses, or one-time offerings of current topics.

**ARAB 201 - Intermediate Modern Standard Arabic I. 4 Credits.**

Offered autumn. Prereq., ARAB 102. This course is designed to help students further develop their language skills (listening, speaking, reading, and writing) and learn more about Arab culture and advanced grammar rules beyond the elementary level. The target proficiency level is intermediate-low/mid based on proficiency guidelines from the American Council on the Teaching of Foreign Languages. Gen Ed Attributes: Language Requirement

**ARAB 202 - Intermediate Modern Standard Arabic II. 4 Credits.**

Offered spring. Prereq., ARAB 201. This course is a continuation of ARAB 201. It is designed to help students further develop their language skills (listening, speaking, reading, and writing) and learn more about the Arab culture and advanced grammar rules beyond the elementary level. The target proficiency level is intermediate-mid based on proficiency guidelines from the American Council on the Teaching of Foreign Languages. Gen Ed Attributes: Language Requirement

**ARAB 291 - Special Topics. 1-8 Credits.**

(R-8) Offered intermittently. Experimental offerings of visiting professors, experimental offerings of new courses, or one-time offerings of current topics.

**ARAB 292 - Independent Study. 1-6 Credits.**

(R-6) Offered autumn and spring. Course material appropriate to the needs and objectives of the individual student.

**ARAB 301 - Advanced Modern Standard Arabic I. 3 Credits.**

Offered autumn. Prereq., ARAB 202. This course is designed to help students further develop their language skills (listening, speaking, reading, and writing) and learn more about Arab culture and advanced grammar rules beyond the intermediate level. The target proficiency level is intermediate-high based on proficiency guidelines from the American Council on the Teaching of Foreign Languages. Gen Ed Attributes: Language Requirement

**ARAB 302 - Advanced Modern Standard Arabic II. 3 Credits.**

Offered spring. Prereq., ARAB 301. This course is a continuation of ARAB 301. It is designed to help students further develop their language skills (listening, speaking, reading, and writing) and learn more about Arab culture and advanced grammar rules beyond the intermediate level. The target proficiency level is intermediate-high/advanced-low based on proficiency guidelines from the American Council on the Teaching of Foreign Languages. Gen Ed Attributes: Language Requirement

**ARAB 305 - The Arab World. 3 Credits.**

Offered autumn. Students explore the Arabic-speaking countries through in-depth discussions of their history, geography, peoples, economy, political systems, educational systems, and cultural components, such as music, cuisine, tradition, customs, gender relations, etc. This course is designed for everyone interested in the topic, and no previous knowledge of the Arabic language is required. Gen Ed Attributes: Cultural & International Diversity

**ARAB 391 - Special Topics. 1-9 Credits.**

(R-9) Offered intermittently. Experimental offerings of visiting professors, experimental offerings of new courses, or one-time offerings of current topics.



**ARAB 392 - Independent Study. 1-6 Credits.**

(R-12) Offered autumn and spring. Course material appropriate to the needs and objectives of the individual student.

## Art (ARTZ)

**ARTZ 105A - Visual Language - Drawing. 3 Credits.**

Offered autumn and spring. Introduction to basic drawing skills and concept integration. Studio practice with research in historical and contemporary approaches.

Gen Ed Attributes: Expressive Arts

**ARTZ 108A - Visual Language - 3-D Foundations. 3 Credits.**

Offered autumn and spring. Introduction to the formal elements and principles of design in 3-D.

Gen Ed Attributes: Expressive Arts

**ARTZ 131A - Ceramics for Non-majors. 3 Credits.**

Offered autumn and spring. A general introduction to ceramics for non-art majors. Learn a variety of techniques working with clay and glazes. No Art experience required. Not for B.A, B.F.A majors or art minors.

Gen Ed Attributes: Expressive Arts

**ARTZ 191 - Special Topics. 1-6 Credits.**

(R-12) Offered intermittently. Experimental offerings by visiting professors, experimental offerings of new courses, and/or one-time offerings of current topics.

**ARTZ 194 - Seminar. 1-6 Credits.**

(R-6) Offered intermittently. A review and discussion of current research. Topics vary.

**ARTZ 211A - Drawing I. 3 Credits.**

Offered intermittently. Prereq., ARTZ 105A. Study of human anatomy through drawing, in-class skills development, homework portfolio, and research in historical and contemporary figuration required.

Gen Ed Attributes: Expressive Arts

**ARTZ 214 - Illustration. 3 Credits.**

Offered autumn. This course is an introduction to drawing techniques as they pertain to the commercial illustration industry; emphasis on creative interpretation and disciplined draftsmanship for the visual communication of ideas.

**ARTZ 221A - Painting I. 3 Credits.**

Offered autumn and spring. Prereq., ARTZ 105A. Introduction to acrylic and oil painting. Emphasis on color theory, composition, concept development, and research in historical and contemporary strategies.

Gen Ed Attributes: Expressive Arts

**ARTZ 231A - Ceramics I. 3 Credits.**

Offered autumn and spring. Introduction to ceramic techniques. Introduction to clay as a historical and contemporary medium to explore art making. Emphasis on handbuilding and wheel throwing, and concept development including large scale sculpture and functional pottery.

Gen Ed Attributes: Expressive Arts

**ARTZ 251A - Sculpture I. 3 Credits.**

Offered autumn and spring. Offered autumn and spring. Introduction to fundamental technical skills and processes used to make sculptural objects. Emphasis on formal concerns, concept development, and new technologies in art.

Gen Ed Attributes: Expressive Arts

**ARTZ 271A - Printmaking I. 3 Credits.**

(R-9) Offered autumn and spring. Emphasis on multiples, layering color, and collaboration. Topics may include: relief, intaglio, lithography, screenprinting, artist books, mixed media, or photo-processes. Consideration of historical and contemporary approaches.

Gen Ed Attributes: Expressive Arts

**ARTZ 284A - Photography I: Technologies and Processes. 3 Credits.**

Offered autumn and spring. Introduction to photography. Emphasis on exposure, digital camera basics, composition, digital photography processing, and print finishing techniques. Consideration of historical and contemporary approaches.

Gen Ed Attributes: Expressive Arts

**ARTZ 291 - Special Topics. 1-9 Credits.**

(R-12) Offered intermittently. Experimental offerings by visiting professors, experimental offerings of new courses, and/or one-time offerings of current topics.

**ARTZ 302A - Teaching Early Childhood and Elementary Art. 2 Credits.**

Offered autumn and spring. Restricted to majors in Elementary Education, Early Childhood Education, and Art Education. This is a general teaching methods course in visual art education. This course is designed to provide students with a fundamental understanding of the roles, values, classroom pedagogy, and current issues in P-8 visual art education; to investigate child development; to offer an introduction to content standards; and to examine a broad array of art education theories and practices. Students are introduced to available curriculum resources and will engage in academic service learning.

Gen Ed Attributes: Expressive Arts

**ARTZ 311 - Drawing II. 3 Credits.**

(R-12) Offered intermittently. Prereq., ARTZ 211A. Focus on integrating content and form in drawings and research in historical and contemporary ideas.

**ARTZ 314A - Environmental Drawing. 1-6 Credits.**

(R-6) Offered intermittently. Open to students in the Wilderness and Civilization program (Wilderness Studies minor) during fall semesters. Open to all students during spring semester. Exploration and production of drawings, with an emphasis on an environmental context; studio practicum, lectures, critiques, reading and writing required. Some restrictions might be applied to specific sections of this course.

Gen Ed Attributes: Expressive Arts

**ARTZ 321 - Painting II. 3 Credits.**

(R-12) Offered autumn and spring. Prereq., ARTZ 221A. Continued development of painting skills and concepts with an emphasis on contemporary ideas and approaches. Topics may include: figuration, place, process, abstraction, and other contemporary themes.

**ARTZ 331 - Ceramics II. 3 Credits.**

(R-12) Offered autumn and spring. Prereq., ARTZ 231A. More advanced development of ceramic process with emphasis on idea development and individual skill building. Depending on the section handbuilding, wheel throwing and other technique will be taught. Focus on integrating content and form through study of historical and contemporary approaches.

**ARTZ 335 - Clay and Glaze. 3 Credits.**

Offered autumn. In-depth study of the physical and chemical properties of clays and glazes. Hands-on testing of clay and glaze formulas and introduction to kiln firing.



**ARTZ 351 - Sculpture II. 3 Credits.**

(R-12) Offered autumn and spring. Continued development of sculptural processes. Emphasis on clear sculptural responses to material-based and topic-based assignments. Consideration of both analog and digital means. Topics may include fabrication, foundry, fiber, and other materials and approaches.

**ARTZ 371 - Printmaking II. 3 Credits.**

(R-12) Offered autumn and spring. Continued development of printmaking processes. Emphasis on integration of content. Focus on layering of color, increased scale, styles of format and presentation, and research in historical and contemporary approach topics may include: relief, screenprinting, monotypes, book arts, and outsourced digital fabrication methods.

**ARTZ 380 - Data Arts. 3 Credits.**

Offered autumn or spring. Data Arts teaches the essential and practical skills necessary to communicate information about data clearly and effectively through graphic and visual design.

**ARTZ 383 - Analog Photography. 3 Credits.**

Prereq., ARTZ 284A or JRNL 257A. This is an exploration of analog photographic techniques and methods employing light-sensitive film and paper as well as using a variety of different camera systems and film formats. The course emphasizes advancement of technical control and darkroom experimentation resulting in students establishing individual portfolios. A 35 mm film camera is required for this class.

**ARTZ 384 - Photography II: Theory, Criticism, and Practice. 3 Credits.**

(R-12) Offered autumn and spring. Prereq., ARTZ 284A or JRNL 257A. Further exploration of digital photography. Emphasis on effective use of color, advanced camera operation and image editing techniques with software and image output, studio and strobe lighting. Emphasis on content development, technical knowledge, presentation, and research in historical and contemporary approaches.

**ARTZ 388 - Alternative Process Photography. 3 Credits.**

Offered intermittently. Prereq. or coreq., ARTH 250L and ARTZ 284A. Exploration of historic and alternative photography techniques such as cyanotype, pinhole, and wet-plate. Focus on digital negative, historic optics, and varied approaches to format, presentation, and research in historical and contemporary approaches.

**ARTZ 389 - Synthesis. 3 Credits.**

Offered spring. Prereq., or corequisite ARTZ 380. This course allows students to draw together their learning and their critical thinking into a defining experience, through the development of a synthesis project and a written presentation.

**ARTZ 391 - Special Topics. 1-9 Credits.**

(R-12) Offered intermittently. Experimental offerings by visiting professors, experimental offerings of new courses, and/or one-time offerings of current topics.

**ARTZ 394 - Seminar. 1-6 Credits.**

(R-6) Offered intermittently. Topics vary.

**ARTZ 395 - Art Practicum/Field Experience. 1-12 Credits.**

(R-12) Supervised, practical experience in a professional setting relevant to the student's field of study.

**ARTZ 398 - Internship. 1-12 Credits.**

(R-12) Offered autumn and spring. Prereq., ARTH 250L. Extended classroom experience that provides practical application of classroom learning during placements off campus. Prior approval must be obtained from the faculty supervisor. A maximum of 6 credits of Internship (198, 298, 398, 498) may count toward graduation.

**ARTZ 402 - Teaching Art I - K-12. 3 Credits.**

Offered fall. Restricted to Art majors. This course is designed to provide students with a fundamental understanding of the roles, values, classroom pedagogy, and current issues in K-12 visual art education; to investigate child development; to offer an introduction to content standards; and to examine a broad array of art education theories and practices. Students are introduced to curriculum resources and will engage in academic service learning. Level: Undergraduate/Graduate

**ARTZ 403 - Teaching Art II - K-12. 3 Credits.**

Offered spring. Prereq., ARTZ 402. Restricted to Art majors. Continuation and practical application of ARTZ 402. Level: Undergraduate/Graduate

**ARTZ 410 - Advanced Research- Drawing. 3 Credits.**

(R-9) Offered intermittently. Advanced Research Drawing, Further exploration of time-based studio practice including assignments and student proposals. Level: undergraduate and graduate.

**ARTZ 420 - Advanced Research- Painting. 3 Credits.**

(R-9) Offered intermittently. Prereq., ARTZ 351. Further exploration and establishment of a functional studio art practice including technical skills, concept development, and understanding of contemporary themes and theory. Level: undergraduate and graduate.

**ARTZ 430 - Advanced Research- Ceramics. 3 Credits.**

(R-9) Offered intermittently. Prereq., ARTZ 231A. An advanced critique-based studio class where students design their own project proposals and work one-on-one with the faculty. Level: undergraduate and graduate.

**ARTZ 490 - Undergraduate Research. 1-9 Credits.**

(R-12) Independent research under the direction of a faculty member. Level: undergraduate.

**ARTZ 491 - Special Topics. 1-6 Credits.**

(R-12) Offered intermittently. Experimental offerings by visiting professors, new courses, and/or one-time offerings of current topics.

**ARTZ 492 - Independent Study. 1-6 Credits.**

(R-12) Offered intermittently. Course material appropriate to the needs and objectives of the individual student. Level: undergraduate and graduate.

**ARTZ 494 - Seminar- Professional Practices. 3 Credits.**

Offered autumn. Prereq., ARTH 250L. Restricted to students with senior standing. Required of all graduating B.F.A. students. Introduction to professional practices and standards in the visual arts, including: presentation, portfolio development, career and exhibition opportunities, arts advocacy, and graduate school application. Level: undergraduate and graduate.

**ARTZ 495 - Senior Studio Project. 3 Credits.**

Offered spring. Capstone studio class of a self-determined ambitious thesis project. Specific projects formats are determined individually and include thematic integration. Examples of possible formats include a series of artworks, website videos, books, illustrations, collaborative multi-disciplinary events, multi-media presentations in other professions, data visualizations, etc. Level: undergraduate.

**ARTZ 497 - Presentation to the Community. 1 Credit.**

(R-2) Offered spring. This course examines the practical aspects of bringing a creative project forward to the public. Students will develop all aspects associated with staging a presentation of their final portfolio, including: writing proposals, press releases, CV and artist statements; developing budgets, seeking funding, installing artwork, and documenting presentation. Level: undergraduate.

**ARTZ 498 - Internship. 1-12 Credits.**

(R-12) Offered intermittently. Extended classroom experience that provides practical application of classroom learning during placements off campus. Prior approval must be obtained from the faculty supervisor. A maximum of 6 credits of Internship (198, 298, 398, 498) may count toward graduation. Level: undergraduate and graduate.

**ARTZ 499 - Senior Thesis/Capstone. 3 Credits.**

Offered spring. Prereq., ARTZ 494. Restricted to students with senior standing. Requires successful passage of the B.F.A. review. This required course for B.F.A. students focuses on completion of artwork and preparation for required spring B.F.A. exhibition. Further exploration of professional practices topics and career opportunities. Level: undergraduate.

**ARTZ 501 - Graduate Critique Seminar. 2 Credits.**

(R-16) Offered autumn and spring. Restricted to graduate students in Art. Weekly meetings to critique graduate student work. Level: Graduate

**ARTZ 504 - Pre-Candidacy. 1 Credit.**

(R-2) Offered autumn and spring. Restricted to graduate students in Art. Taken concurrently with 500-level Graduate Research/Studio Processes. Emphasis on one-on-one instruction with faculty in preparation for review prior to thesis work. Level: Graduate

**ARTZ 505 - Graduate Studio Research: Art. 1-6 Credits.**

(R-24) Offered spring. Restricted to graduate students in Art. Regular meetings with faculty to discuss development of individual work. Level: Graduate

**ARTZ 506 - Graduate Pedagogy. 3 Credits.**

Offered autumn. Restricted to graduate students in Art. This course focuses on current pedagogical practices in college-level art education. Emphasis is on the syllabus, teaching philosophy, assignment preparation, public-speaking skills development, TA application, and course shadowing. Level: Graduate

**ARTZ 507 - Beyond Art School. 3 Credits.**

Restricted to graduate students in Art. Introduction to professional practices and standards in the visual arts. Emphasis is on portfolios, resumes, web development, exhibition opportunities, grant writing, and artist residencies. Level: Graduate

**ARTZ 508 - Expanded Studio Practice. 3-6 Credits.**

(R-6) Offered autumn and spring. Restricted to graduate students in Art. Studio-based course with emphasis on collaborative practices across media. May include topic-based studio assignments, thematic inquiry, responses to readings, and/or specific studio processes. Level: Graduate

**ARTZ 520 - Graduate Topics in Painting. 3 Credits.**

(R-9) Offered intermittently. Exploration of studio art painting including concept development, and understanding of contemporary themes and theory. Level: Graduate

**ARTZ 580 - Data Arts. 3 Credits.**

Offered autumn and spring. This course teaches the essential and practical skills necessary to communicate information about data clearly and effectively through graphic and visual design. Level: Graduate

**ARTZ 591 - Special Topics. 1-9 Credits.**

(R-12) Offered intermittently. Experimental offerings by visiting professors, experimental offerings of new courses, and/or one-time offerings of current topics. Level: Graduate

**ARTZ 592 - Independent Study. 1-6 Credits.**

(R-18) Offered intermittently. Course material appropriate to the needs and objectives of the individual student. Level: Graduate

**ARTZ 594 - Seminar. 1-6 Credits.**

(R-6) Offered intermittently. A review and discussion of current research. Topics vary. Level: Graduate

**ARTZ 598 - Internship. 2-6 Credits.**

(R-6) Offered intermittently. Restricted to graduate students in Art. Extended classroom experience that provides practical application of classroom learning during placements off campus. Prior approval must be obtained from the faculty supervisor. Level: Graduate

**ARTZ 599 - Thesis Paper/Exhibition. 1-6 Credits.**

Offered intermittently. One-on-one instruction with thesis committee chair and thesis exhibition preparation. Level: Graduate

## Art History (ARTH)

**ARTH 150H - Introduction to Art History. 3 Credits.**

Surveys world art from prehistory through the present day with the objective of developing a critical understanding of art forms in their historical and cultural context.

Gen Ed Attributes: Historical Studies, Cultural & International Diversity

**ARTH 191 - Special Topics. 1-6 Credits.**

(R-12) Offered intermittently. Experimental offerings by visiting professors, new courses, and/or one-time investigations of current topics.

**ARTH 201H - Art of World Civilization: 1400 to Present. 3 Credits.**

Offered spring. Survey of the history of visual art from 1400 to the present.

Gen Ed Attributes: Historical Studies

**ARTH 250L - Introduction to Art Criticism. 3 Credits.**

Offered autumn. Prereq., WRIT 101 or WRIT 201; and ARTH 150H. Study of the description, interpretation, and evaluation of visual art as practiced in art criticism.

Gen Ed Attributes: Literary & Artistic Studies, Writing Across the Curriculum

**ARTH 291 - Special Topics. 1-6 Credits.**

(R-12) Offered intermittently. Experimental offerings by visiting professors, new courses, and/or one-time investigations of current topics.

**ARTH 333H - Architectural History I. 3 Credits.**

Offered autumn. Prereq., ARTH 150H or ARTH 201H. Exploration of architectural styles, designs, and choices of the built environment from prehistory to the modern age.

Gen Ed Attributes: Historical Studies

**ARTH 334H - Architectural History II. 3 Credits.**

Prereq., ARTH 201H and ARTH 250L. Exploration of architectural styles, designs, and choices of the built environment from 1850 to the present.

Gen Ed Attributes: Historical Studies

**ARTH 341 - Edconic: Contemporary Art & Global Feminisms. 2 Credits.**

Offered every semester. Restricted to students in the Edconic program. Taught at Sotheby's Institute in London by Edconic instructors. This course will consider the key global currents of fifty years of feminist art around a number of themes. These include feminist art about the body and sexuality, women's domestic labour, feminist approaches to identity, motherhood and childcare, violence against women, feminism, and the art historical canon. Students will encounter these themes through a number of different media, from painting, photography and sculpture to textile, digital, and performance art.

**ARTH 344 - Edconic: Hogarth to Himid: Histories of British Art. 2 Credits.**  
Offered every semester. Restricted to students in the Edconic program. Taught at Sotheby's Institute in London by Edconic instructors. This course provides a survey of British art spanning from the 17th century to the present day, introducing students to artworks, artists, and significant collections of British art. In the breadth of art and artists studied, there will be particular attention given to Black and multicultural British art and women artists who have been less visible in canonical surveys of British art.

**ARTH 345 - Edconic: Curator Academy. 5 Credits.**

Offered every semester. Restricted to students in the Edconic program. Taught at Sotheby's Institute in London Edconic instructors. This course surveys current developments in curating art, examining expanded definitions of curating (in museums and independently post-2020), and the evolving local, global, and digital landscapes for curatorial work and activity today.

**ARTH 346 - Edconic: The Global Art Market. 5 Credits.**

Offered every semester. Restricted to students in the Edconic program. Taught at Sotheby's Institute in London by Edconic instructors. This course explores the emergence and key concepts of the global market for art from the 18th to the 21st centuries through a discussion of its history, disruptions and innovations. The course takes a thematic approach delivered via specific case studies to map the key concepts, individuals and institutions, and the various business models, and ethical and legal considerations that underpin the contemporary market.

**ARTH 347 - Edconic: Exploring Collections, Exploding Canons. 2 Credits.**

Offered every semester. Restricted to students in the Edconic program. Taught at Sotheby's Institute in London by Edconic instructors. This course introduces and examines London's internationally significant museum and gallery collections from a critical and global perspective. Exploring the politics of collecting and display, it engages with contemporary art historical and curatorial debates via the realities of institutions and their collections - and the inherent tensions therein.

**ARTH 350 - Contemporary Art and Art Criticism. 3 Credits.**

Offered autumn and spring. Prereq., WRIT 101 or WRIT 201; and ARTH 250L. Exploration of artists, art works, critics, and theories from 1960 to the present.

Gen Ed Attributes: Writing in the Disciplines

**ARTH 371 - Manga and Anime: History, Practice, and Form. 3 Credits.**

Surveys the history and genres of Japanese comics (manga) and animation (anime). Students will learn how to analyze/draw the visual elements of manga and anime while also learning about cultural context, production, and reception. In addition to discussing common themes and narrative forms employed, students will learn to distinguish among, describe, and draw the various art styles and framing structures.

**ARTH 391 - Special Topics. 1-6 Credits.**

(R-12) Offered intermittently. Experimental offerings by visiting professors, new courses, and/or one-time investigations of current topics.

**ARTH 428 - Baroque Art. 3 Credits.**

Offered intermittently. Prereq., ARTH 150H or ARTH 201H and ARTH 250L. Exploration of European art and architecture from 1600 to 1700. Level: undergraduate and graduate.

**ARTH 439 - Contemporary American Indian Art. 3 Credits.**

Offered intermittently. Prereq., ARTH 150H. Provides an overview of American Indian artwork with an emphasis on contemporary artwork from the United States and tribes that spanned the US-Canada border. Studies Native American artistic traditions, and discusses issues and themes particular to Indigenous artwork. Explores the cultural, political, social, and historic contexts for the artwork, providing students with a multidisciplinary understanding of Indigenous artwork. Prioritizes Indigenous voices as a direct source of knowledge and insight. Level: Undergraduate/Graduate

**ARTH 440 - 20th Century Art. 3 Credits.**

Offered intermittently. Prereq., ARTH 150H or ARTH 201H and ARTH 250L. Exploration of art and architecture of the 20th century. Level: undergraduate and graduate.

**ARTH 444 - Open Range: Land Art and the American Consciousness. 3 Credits.**

Offered spring. The aim of this course is to investigate the sense of place in American visual arts of the 19th to 21st centuries. The course provides a roughly chronological view of the development of place in the American landscape, particularly in the west, and how that has been articulated by visual artists. Level: undergraduate.

**ARTH 445 - History of Photography. 3 Credits.**

Offered intermittently. Prereq., ARTH 150H or 201H and ARTH 250L. Exploration of the history of photography from the early 19th century to the 21st century. Level: undergraduate.

**ARTH 458 - Advanced Research in Art History. 2-6 Credits.**

(R-9) Offered autumn and spring. Further exploration of art history topics including student proposals. Level: undergraduate and graduate.

**ARTH 491 - Special Topics. 1-6 Credits.**

(R-9) Offered intermittently. Experimental offerings by visiting professors, new courses, and/or one-time investigation of current topics. Level: undergraduate and graduate.

**ARTH 492 - Independent Study. 1-6 Credits.**

(R-6) Offered intermittently. Further exploration of studio practice including technical and conceptual student proposals. Level: undergraduate and graduate.

**ARTH 494 - Seminar. 3 Credits.**

(R-9) Upper-division seminar in varying topics of art history and criticism. Level: undergraduate and graduate.

**ARTH 498 - Internship. 1-6 Credits.**

(R-12) Offered intermittently. Prereq., ARTH 250L. Extended classroom experience that provides practical application of classroom learning during placements off campus. Prior approval must be obtained from the faculty supervisor. A maximum of 6 credits of Internship (198, 298, 398, 498) may count toward graduation. Level: undergraduate and graduate.

**ARTH 503 - Critical Theories in the Visual Arts I. 3 Credits.**

Seminar on the history of art criticism. Level: Graduate

**ARTH 509 - Critical Theories in Visual Arts II. 3 Credits.**

Prereq., ARTH 503. Continuation of ARTH 503 with an emphasis on contemporary theories and topics. Level: Graduate

**ARTH 533 - Graduate Architectural History I. 3 Credits.**

Offered autumn. This course offers students a knowledge and understanding of architecture styles, designs, and choices of the built environment from prehistoric megalithic architecture to the start of the modern age.

**ARTH 534 - Graduate History of Architectural Design II. 3 Credits.**

Offers students a knowledge and understanding of architecture styles, designs and choices of the built environment of the modern age. Level: Graduate

**ARTH 584 - Museum Studies Seminar. 2 Credits.**

(R-12) Offered autumn, spring, and summer. This seminar emphasizes the practical knowledge, skills, and abilities in Museum Studies.

**ARTH 590 - Research in Art History. 1-9 Credits.**

(R-24) Offered intermittently. Research for graduate students in art history and/or studio. Graded credit/no-credit. Level: Graduate

**ARTH 591 - Special Topics. 1-6 Credits.**

(R-6) Offered intermittently. Experimental offerings of visiting professors, experimental offerings of new courses, or one-time offerings of current topics. Level: Graduate

**ARTH 592 - Independent Study. 1-6 Credits.**

(R-6) Offered intermittently. Course material appropriate to the needs and objectives of the individual student. Level: Graduate

**ARTH 595 - Museum Studies Field Project. 2 Credits.**

Offered autumn, spring, and summer. Graduate students enrolled in the Museum Studies Certificate program will take this course to polish and present their year-long practical Field Projects to the core faculty.

**ARTH 598 - Internship. 1-6 Credits.**

(R-6) Offered intermittently. Extended classroom experience that provides practical application of classroom learning during placements off campus. Prior approval must be obtained from the faculty supervisor.

**ARTH 599 - Thesis. 1-6 Credits.**

(R-6) Preparation of a thesis or manuscript based on research for presentation and/or publication. Level: Graduate

## Astronomy (ASTR)

**ASTR 131N - Planetary Astronomy. 3 Credits.**

Offered autumn. Students should have taken high school algebra and geometry prior to registration. An introduction to observational, historical, and planetary astronomy. Students will have a chance to visit UM's state-of-the-art planetarium and observe with our 0.4 meter telescope.

Gen Ed Attributes: Natural Science

**ASTR 132N - Stars, Galaxies, and the Universe. 3 Credits.**

Offered spring. Students should have taken high school algebra and geometry prior to registration. An introduction to stars, stellar evolution, galaxies, and cosmology. Students will have a chance to visit UM's state-of-the-art planetarium and observe with our 0.4 meter telescope.

Gen Ed Attributes: Natural Science

**ASTR 134N - Planetary Astronomy Lab. 1 Credit.**

Offered autumn. Prereq. or coreq., ASTR 131N. Laboratory exercises in observational and planetary astronomy. Students will have a chance to visit UM's state-of-the-art planetarium and observe with our 0.4 meter telescope.

Gen Ed Attributes: Natural Science Lab Course, Natural Science

**ASTR 135N - Stars, Galaxies, and the Universe Lab. 1 Credit.**

Offered spring. Prereq. or coreq., ASTR 132N. Laboratory exercises in observational, stellar, and galactic astronomy. Students will have a chance to visit UM's state-of-the-art planetarium and observe with our 0.4 meter telescope.

Gen Ed Attributes: Natural Science Lab Course, Natural Science

**ASTR 142N - The Evolving Universe. 4 Credits.**

Offered spring. Students should have a working knowledge of precalculus (ie. college algebra and college trigonometry) prior to registration.

Overview of recent developments in planetary system formation, stars, galaxies, and cosmology. Some astronomical observing will be required outside of normal class hours.

Gen Ed Attributes: Natural Science Lab Course, Natural Science

**ASTR 191 - Special Topics. 1-6 Credits.**

(R-6) Offered intermittently. Experimental offerings of visiting professors, experimental offerings of new courses or one-time offerings of current topics.

**ASTR 198 - Internship. 1-6 Credits.**

(R-6) Offered intermittently. Extended classroom experience which provides practical application of classroom learning during placements off campus. Prior approval must be obtained from the faculty supervisor. A maximum of 6 credits of Internship (198, 298, 398, 498) may count toward graduation.

**ASTR 292 - Independent Study. 1-6 Credits.**

(R-9) Course material appropriate to the needs and objectives of the individual student.

**ASTR 351 - Planetary and Exoplanet Science. 3 Credits.**

Offered autumn even-numbered years. Prereq., PHSX 215N/PHSX 216N or PHSX 205N/PHSX 206N; and M 162 or M 171. Physical and geological characteristics of planets, satellites, asteroids, comets, and meteoroids, with an emphasis on comparative planetology.

**ASTR 353 - Galaxies and Cosmology. 3 Credits.**

Offered spring odd-numbered years. Prereq., ASTR 132N or ASTR 142N, and PHSX 217N - PHSX 218N or PHSX 207N - PHSX 208N, and M 273. The nature of the Milky Way galaxy and other galaxies, galactic evolution, the large scale structure of the universe, active galaxies and quasars, and cosmology, including the early universe.

**ASTR 362 - Observational Astronomy. 3 Credits.**

Offered autumn even-numbered years. Prereq., ASTR 132N or ASTR 142N, and PHSX 207N - PHSX 208N or PHSX 217N - PHSX 218N. Laboratory study of the probabilistic behavior of light, data acquisition with telescopes, digital imaging and spectroscopy. Emphasis on fundamental statistical tools, scientific computer programming, and written and oral presentation of scientific results.

**ASTR 363 - Stellar Astronomy & Astrophysics I. 3 Credits.**

Offered autumn odd-numbered years. Prereq., ASTR 132N or ASTR 142N, and PHSX 207N- PHSX 208N or PHSX 217N- PHSX 218N. Prereq. or coreq., M 273. Detailed application of physical laws to determine the nature of the stars; analysis of stellar spectra and atmospheres; solar astrophysics; structure of stars and their evolution.

**ASTR 365 - Stellar Ast & Astrophys II. 3 Credits.**

Offered spring even-numbered years. Prereq., ASTR 363. Continuation of ASTR 363.

**ASTR 391 - Special Topics. 1-9 Credits.**

(R-9) Offered intermittently. Experimental offerings of visiting professors, experimental offerings of new courses, or one-time offerings of current topics.

**ASTR 392 - Independent Study. 1-6 Credits.**

(R-9) Course material appropriate to the needs and objectives of the individual student.



**ASTR 398 - Internship. 1-6 Credits.**

(R-6) Offered intermittently. Extended classroom experience which provides practical application of classroom learning during placements off campus. Prior approval must be obtained from the faculty supervisor. A maximum of 6 credits of Internship (198, 298, 398, 498) may count toward graduation.

**ASTR 492 - Independent Study. 1-12 Credits.**

(R-12) Course material appropriate to the needs and objectives of the individual student. Level: Undergraduate-Graduate.

**ASTR 494 - Seminar. 1-3 Credits.**

A review and discussion of current research. Topics vary. Level: Undergraduate.

**ASTR 498 - Internship. 1-6 Credits.**

(R-6) Offered intermittently. Extended classroom experience which provides practical application of classroom learning during placements off campus. Prior approval must be obtained from the faculty supervisor. A maximum of 6 credits of Internship (198, 298, 398, 498) may count toward graduation. Level: Undergraduate

**ASTR 499 - Capstone. 1 Credit.**

Offered autumn. Restricted to students with junior or senior standing in Physics. Capstone project on research performed prior to or during the student's senior year. Level: Undergraduate.

## Athletic Training (ATEP)

**ATEP 534 - Emergency Management in Athletic Training. 3 Credits.**

Restricted to students in the Master of Athletic Training program. Serves as an introduction to athletic training practice. Emphasis on the prevention, care, and management of acute injuries and illnesses, as well as risk management, environmental concerns, and protective taping and equipment. Level: Graduate

**ATEP 536 - Foundations of Health Care in Athletic Training. 2 Credits.**

This course presents the overarching framework, principles, and core responsibilities of athletic training practice working in multidisciplinary healthcare teams. The course also provides the necessary foundation for athletic training practice focusing on patient-centered care, interprofessional practice, evidence-based practice, quality improvement and healthcare informatics. Level: Graduate

**ATEP 537 - Foundations of Research and Evidence Based Practice in Athletic Training. 2 Credits.**

This course explores quantitative and qualitative research methodologies used in athletic training and evaluation of published research in the field. The course will introduce evidence-based practice research, provide strategies for reading and writing critically, and offer a plan to applying evidence-based practice in daily clinical practice. Level: Graduate

**ATEP 540 - Practicum in Athletic Training I. 3 Credits.**

Restricted to students in the Master of Athletic Training program. Builds on skills previously acquired and introduces new skills related to current coursework. Students will be assigned to a clinical education rotation under the direct supervision of a clinical preceptor. First in the series of four practicum courses. Level: Graduate

**ATEP 541 - Practicum in Athletic Training II. 3 Credits.**

Restricted to students in the Master of Athletic Training program. Expands on skills previously acquired and introduces new skills related to current coursework. Students will be assigned to a clinical education rotation under the direct supervision of a clinical preceptor. Second in the series of four practicum courses. Level: Graduate

**ATEP 543 - Orthopedic Assessment I. 3 Credits.**

Provides a study of anatomy and physiology, assessment, evaluation techniques, treatment, and management of conditions affecting the lower extremities and lumbar spine. Level: Graduate

**ATEP 545 - Diagnosis and Management of Sports Related Concussion. 2 Credits.**

This course discusses assessment techniques commonly used in the clinical evaluation of sport related concussion. The course also provides the necessary foundation for establishing inter-professional care teams to treat sport related concussion. Level: Graduate

**ATEP 546 - General Medical Assessment. 3 Credits.**

Restricted to students in the Master of Athletic Training program. Examines the recognition, assessment, and management of general medical conditions and illnesses. Level: Graduate

**ATEP 547 - Orthopedic Assessment II. 3 Credits.**

Provides a study of anatomy and physiology, assessment, evaluation techniques, treatment, and management of conditions affecting the upper extremities, head, and thoracic and cervical spine. Level: Graduate

**ATEP 550 - Practicum in Athletic Training III. 3 Credits.**

Restricted to students in the Master of Athletic Training program. Broadens skills previously acquired and introduces new skills related to current coursework. Students will be assigned to a clinical education rotation under the direct supervision of a clinical preceptor. Third in the series of four practicum courses. Level: Graduate

**ATEP 551 - Practicum in Athletic Training IV. 3 Credits.**

Restricted to students in the Master of Athletic Training program. Reviews and refines skills previously acquired and evaluated in previous coursework. Students will be assigned to a clinical education rotation under the direct supervision of a clinical preceptor. Fourth in the series of four practicum courses. Level: Graduate

**ATEP 560 - Clinical Immersion in Athletic Training I. 2 Credits.**

Practice intensive experience that allows the student to experience the totality of care provided by athletic trainers. Students will be assigned to a clinical education rotation under the direct supervision of a clinical preceptor. This is the first in the series of three immersion courses. Level: Graduate

**ATEP 561 - Clinical Immersion in Athletic Training II. 6 Credits.**

Practice intensive experience that allows the student to experience the totality of care provided by athletic trainers. Students will be assigned to a clinical education rotation under the direct supervision of a clinical preceptor. This is the second in the series of three immersion courses. Level: Graduate

**ATEP 562 - Clinical Immersion in Athletic Training III. 4 Credits.**

Practice intensive experience that allows the student to experience the totality of care provided by athletic trainers. Students will be assigned to a clinical education rotation under the direct supervision of a clinical preceptor. This is the third in the series of three immersion courses. Level: Graduate

**ATEP 569 - Clinical Anatomy Laboratory. 1 Credit.**

Offered Fall. Prereq., Athletic Training Student. Clinical applications of anatomy in Athletic Training. Laboratory time for practical applications including prosected cadavers, surface anatomy, osteology, radiology, functional analysis of movement, applied clinical anatomy and sports application. Level: Graduate

**ATEP 574 - Manual Therapy Techniques. 3 Credits.**

Offered summer. Prereq., ATEP 572. Theories and application methods of comprehensive manual therapy for athletic injuries. Level: Graduate



**ATEP 576 - Performance and Technology in Athletic Training. 3 Credits.**  
Grounded in return-to-competition decision making, the course material covers all aspects of sport performance including nutrition and methods of physical training. Technologies are integrated in movement analyses to help quantify athletic movements and support clinical decisions. Level: Graduate

**ATEP 580 - Pharmacology for Sports Medicine. 1 Credit.**  
Explores the pharmaceutical and chemical processes of therapeutic interventions and therapies. This course examines the constraints placed on patients in the performance environment as well management, protocols, and legal issues. Level: Graduate

**ATEP 581 - Therapeutic Interventions I. 3 Credits.**  
Theories and application methods of comprehensive therapeutic treatment, modalities and rehabilitation programs for injuries commonly sustained by the physically active to the lower extremity. The first course in a series of three courses. Level: Graduate

**ATEP 583 - Therapeutic Interventions II. 3 Credits.**  
Theories and application methods of comprehensive therapeutic treatment, modalities and rehabilitation programs for injuries commonly sustained by the physically active to the upper extremity. The second in a series of three courses. Level: Graduate

**ATEP 585 - Therapeutic Interventions III. 3 Credits.**  
Theories and application of methods of comprehensive manual therapy and joint manipulation techniques for the treatment of athletic injuries. Level: Graduate

**ATEP 588 - Healthcare Administration and Leadership in Athletic Training. 3 Credits.**  
Exploration of the aspects of athletic training leadership styles, organization and administration. This course focuses on program leadership, risk management, policy and procedure development, and organizational operations. Level: Graduate

**ATEP 590 - Research. 2 Credits.**  
This course explores quantitative and qualitative research methodologies used in athletic training and evaluation of published research in the field, including but not limited to: quality improvement projects, novel research, case studies, and systematic reviews. The first course of this series involves developing and completing a practice-based research project, culminating in the creation and submission of research abstracts. Level: Graduate

**ATEP 594 - Seminar in Athletic Training. 1 Credit.**  
This course provides an opportunity for students to engage in conversations with clinical experts focused on transition to clinical practice. Level: Graduate

**ATEP 599 - Research Capstone in Athletic Training. 2 Credits.**  
This course explores quantitative and qualitative research methodologies used in athletic training and evaluation of published research in the field, including but not limited to: quality improvement projects, novel research, case studies, and systematic reviews. The second course of this series involves disseminating a practice-based research project, culminating in the creation of a final written document and presentations. Level: Graduate

## Biochemistry (BCH)

**BCH 110 - Introductory Biology for Biochemists. 3 Credits.**  
Prereq., CHMY 141N & CHMY 142N. Prereq. or coreq., CHMY 143N & CHMY 144N. Coreq., BCH 111. An introductory course that explores biomolecules and their roles in life processes. Provides a foundation for Cellular and Molecular Biology (BIOB 260), Genetics and Evolution (BIOB 272), Introductory Biochemistry Seminar (BCH 294), and many other advanced science courses.

**BCH 111 - Introductory Biology for Biochemists Lab. 1 Credit.**  
Prereq., CHMY 141N & CHMY 142N. Prereq. or coreq., CHMY 143N & CHMY 144N. Coreq., BCH 110. Introduction to the experimental techniques used to study biomolecules and their roles in life processes. Provides a foundation for other advanced level laboratory courses in chemistry and biochemistry.

**BCH 294 - Seminar/Workshop. 1 Credit.**  
Offered spring. Prereq., CHMY 143N. An introduction to important advances in biochemistry through readings from the primary literature and discussion of this literature. Faculty members will also make presentations on their research. Graded credit/no credit.

**BCH 380 - Biochemistry. 4 Credits.**  
Offered autumn and spring. Prereq., CHMY 223 or BIOB 260. Fundamental biochemistry; chemistry and metabolism of biomolecules, energy relationships in metabolism; storage, transmission, and expression of genetic information. Credit not allowed for both BCH 380 and 480-482.

**BCH 480 - Advanced Biochemistry I. 3 Credits.**  
Offered autumn. Prereq., CHMY 223. Primarily for science majors. The chemistry of biomolecules, with emphasis on the structure and function of proteins, carbohydrates, lipids and nucleic acids. The chemistry and regulation of the transfer and expression of genetic information, protein synthesis. Credit not allowed for both BCH 380 and 480-482. Level: Undergraduate-Graduate

**BCH 482 - Advanced Biochemistry II. 3 Credits.**  
Offered spring. Prereq., BCH 480. Continuation of BCH 480. Enzyme kinetics, metabolism, especially macromolecule biosynthesis and energy acquisition pathways, and the associated energetics and molecular physiology. Credit not allowed for both BCH 380 and BCH 480-482. Level: Undergraduate-Graduate

**BCH 486 - Biochemistry Research Lab. 3 Credits.**  
Offered spring. Prereq., BCH 380 or BCH 480. Restricted to students in the Biochemistry or Chemistry majors or minors. Other students will be allowed to enroll on a space-available basis with the consent of the instructor. Applications of biochemical principles to modern protein biochemistry. Basic micro- and molecular-biology techniques are used to produce mutant proteins; then students learn basic and advanced biophysical techniques to characterize the mutant proteins. Level: Undergraduate-Graduate

**BCH 490 - Undergraduate Research. 1-10 Credits.**  
(R-10) Offered every term. Independent research under the direction of a faculty member. Level: Undergraduate

**BCH 491 - Special Topics. 1-10 Credits.**  
(R-10) Offered intermittently. Experimental offerings of visiting professors, experimental offerings of new courses, or one-time offerings of current topics. Level: Undergraduate-Graduate

**BCH 498 - Internship/Cooperative Ed. 1-15 Credits.**

(R-15) Extended non-classroom experience that provides practical application of classroom learning during placements off campus. Prior approval must be obtained from the faculty supervisor. A maximum of 6 credits of Internship (198, 298, 398, 498) may count toward graduation. Level: Undergraduate-Graduate

**BCH 499 - Senior Thesis/Capstone. 3-6 Credits.**

(R-6) Offered every term. Restricted to students with senior standing. Preparation of a thesis or manuscript based on undergraduate research for presentation and/or publication. Student must give an oral or poster presentation at the Undergraduate Research Symposium or a scientific meeting. Level: Undergraduate

**BCH 547 - Experimental Molecular, Cellular, and Chemical Biology. 1 Credit.**

(R-14) Same as BIOB 547. Focus on experimental design, methods, and presentation of experimental results for graduate students in laboratories with a molecular, cellular or chemical biological focus. Level: Graduate

**BCH 561 - RNA Structure & Function. 1 Credit.**

(R-8) Offered every semester. Prereq., BCH 482 & BIOB 260. Exploration of current scientific literature and new data that focuses on RNA biochemistry. Emphasis on literature relevant to research on RNA viruses and ribosomes and protein synthesis. Level: Graduate

**BCH 570 - Intro to Research. 1 Credit.**

(R-2) Offered autumn and spring. Required course for Biochemistry and Biophysics graduate students. Students are acquainted with faculty research projects. Instruction in basic research techniques, research equipment. Introduction to relevant scientific research literature. Level: Graduate

**BCH 581 - Physical Biochemistry. 3 Credits.**

Offered spring odd-numbered years. Techniques of physical chemistry used in studying biological structure and function of macromolecules. Emphasis is on spectroscopic methods, hydrodynamic methods and x-ray and other scattering and diffraction techniques. Level: Graduate

**BCH 582 - Proteins and Enzymes. 3 Credits.**

Offered autumn even-numbered years. Prereq., BCH 482. An investigation into the structure/function relationship in proteins and a detailed exploration of enzyme kinetics, using examples from current literature. Level: Graduate

**BCH 584 - Nucleic Acids. 3 Credits.**

Offered autumn odd-numbered years. Prereq., BCH 482. Emphasis on critical reading of current literature that investigates structure, chemistry, and function of nucleic acids. Level: Graduate

**BCH 590 - Research. 1-18 Credits.**

(R-40) Offered autumn and spring. Directed individual research and study appropriate to the background and objectives of the student. Level: Graduate

**BCH 591 - Special Topics. 1-6 Credits.**

(R-24) Offered intermittently. Requires graduate standing and consent of instructor. Experimental offerings of new courses by resident or visiting faculty. Level: Graduate

**BCH 599 - Thesis. 1-10 Credits.**

(R-10) Offered intermittently. Restricted to students in the Biochemistry and Biophysics M.S. program. Laboratory research for and preparation of a master's thesis. Level: Graduate

**BCH 600 - Cell Organization & Mechanisms. 3 Credits.**

Offered spring even-numbered years. Prereq., BCH 480. Primary literature exploration of the regulation of structure, function, and dynamics of eukaryotic cells. Topics include membranes, cytoskeleton, transcription, translation, signal transduction, cell motility, cell proliferation, and programmed cell death. Level: Graduate

**BCH 694 - Biochemistry & Biophysics Seminar. 1 Credit.**

(R-14) Credit/No credit only. Presentation of current research in Structural Biology, Biochemistry, Biophysics, or related fields by invited outside speakers, UM faculty, and senior graduate students. Level: Graduate

**BCH 699 - Dissertation. 1-20 Credits.**

(R-20) Offered intermittently. Restricted to doctoral students in Biochemistry & Biophysics. Laboratory research for and preparation of a doctoral dissertation. Level: Graduate

## Biology - Ecological (BIOE)

**BIOE 172N - Introductory Ecology. 3 Credits.**

Offered spring. An introduction to ecological principles, stressing the structure and function of natural communities and examining human's role in these ecosystems.

Gen Ed Attributes: Natural Science

**BIOE 342 - Field Ecology. 5 Credits.**

Offered summers only at the Flathead Lake Biological Station. Students taking this course should have completed one semester of college-level biology, chemistry, and mathematics. The principles and practices of the study of animals and plants in their natural environments, including human influences, with focus on the Crown of the Continent area of the Rocky Mountains and taught entirely outdoors.

**BIOE 370 - General Ecology. 3 Credits.**

Offered autumn. Prereq., BIOB 272. Analysis of the distribution and abundance of plants and animals. Includes individual, population and community-level processes (e.g., population growth and regulation, competition, predation, succession, nutrient cycling, energy flow and community organization).

**BIOE 371 - General Ecology Lab (equivalent to 271). 2 Credits.**

Offered autumn. Prereq., BIOB 161N, WRIT 101, BIOE 370, and either STAT 216 or WILD 240. BIOE 370 may be taken prior to or simultaneously with this course. Methods of describing and testing alternative explanations for patterns in nature. The use of scientific methodology in ecology.

**BIOE 394 - Seminar/Workshop. 2 Credits.**

Offered autumn. Preparatory readings and attendance at seminars on a wide variety of ecological and wildlife management topics followed by critiques.

**BIOE 400 - Aquatic Microbial Ecology. 3 Credits.**

Offered summer only at the Flathead Lake Biological Station. Students taking this course should have completed one semester of college-level biology and chemistry and two semesters of college-level mathematics. This course is an immersive (2 week) summer class offered to both undergraduate and graduate students with interests in microbiology and ecology. The course includes lectures, laboratories, and several field-based sampling trips. The course provides conceptual foundation and hands-on field and laboratory training in modern methods in aquatic microbial ecology. Level: Undergraduate-Graduate

**BIOE 403 - Comparative Vertebrate Anatomy. 4 Credits.**

Offered intermittently. Prereq., BIOB 260 or BIOB 272. Comparative study of vertebrate morphology using evolutionary transitions among species to explore design and function. Laboratory includes systematic study of organ systems and workshops in the dynamics of biomechanics and functional morphology. Level: Undergraduate-Graduate

**BIOE 406 - Behavior & Evolution. 4 Credits.**

Offered autumn, odd-numbered years. Prereq., BIOB 272. Diversity of animal behavior in an evolutionary context including inheritance of behavior, diets, avoidance responses, mating systems and sexual selection, parental care, and evolution of animal groups and societies. Level: Undergraduate

**BIOE 416 - Alpine Ecology. 3 Credits.**

Offered summers only at the Flathead Lake Biological Station. Students taking this course should have completed one semester of college-level biology, chemistry, mathematics, and ecology. Distribution, abundance and life cycles of plants and animals and their unique ecophysiological adaptations to life in the rigorous environments of the high mountains above the timberline, with emphasis on the Crown of the Continent area. Level: Undergraduate-Graduate

**BIOE 428 - Freshwater Ecology. 5 Credits.**

Offered spring. Prereq., BIOB 160. Physical and chemical dynamics of lakes and streams. Diversity, distribution and dynamics of freshwater organisms. Level: Undergraduate-Graduate

**BIOE 439 - Stream Ecology. 3 Credits.**

Offered summers only at the Flathead Lake Biological Station. Students taking this course should have completed two semesters of college-level biology and one semester of college-level mathematics, chemistry, and ecology. The biota and biogeochemical processes of running waters with unifying principles and contemporary research approaches. Level: Undergraduate-Graduate

**BIOE 440 - Conservation Biology. 3 Credits.**

Offered summers only at the Flathead Lake Biological Station. Students taking this course should have completed one semester of college-level biology and ecology. Concepts and approaches for sustaining biodiversity and other natural goods and services provided by terrestrial and aquatic systems. Level: Undergraduate-Graduate

**BIOE 447 - Ecosystem Ecology. 3 Credits.**

Offered spring. Prereq., BIOB 160 or BIOB 170N or BIOO 105N or BIOE 172N. Introduction to systems thinking and the ecosystem concept, review of water and energy balances, carbon cycling, nutrient cycling, trophic dynamics, and species effects on ecosystem function across terrestrial and aquatic ecosystems. Level: Undergraduate

**BIOE 448 - Terrestrial Plant Ecology. 4 Credits.**

Offered autumn, even-numbered years. Prereq., BIOE 172N or BIOE 342 or BIOE 370 or FORS 330. The interrelationships between plants and plant communities and their natural environment. Level: Undergraduate-Graduate

**BIOE 451 - Landscape Ecology. 3 Credits.**

Offered summers only at the Flathead Lake Biological Station. Students taking this course should have completed two semesters of college-level biology and mathematics and one semester of college-level ecology and chemistry. Biophysical processes that determine landscape and ecosystem structure and function using remote sensing tools, geographic information systems and dynamic models to demonstrate landscape change. Level: Undergraduate-Graduate

**BIOE 453 - Lake Ecology. 3 Credits.**

Offered summers only at the Flathead Lake Biological Station. Students taking this course should have completed two semesters of college-level biology and one semester of college-level chemistry, mathematics, and ecology. The physical, chemical and biological characteristics of lake ecosystems with an emphasis on nutrient cycling, food web interactions and water quality. Level: Undergraduate-Graduate

**BIOE 458 - Forest and Fire Ecology. 3 Credits.**

Offered summers only at the Flathead Lake Biological Station. Students taking this course should have completed two semesters of college-level coursework (sophomore standing). Patterns, processes, and disturbances of northern Rocky Mountain forests in the context of principles of population, community, landscape, and ecosystem ecology with particular emphasis given to ecology of wildfire. Level: Undergraduate-Graduate

**BIOE 485 - Plant Evolution. 3 Credits.**

Offered autumn, odd-numbered years. Prereq., BIOB 272 and either BIOO 335 (preferred) or BIOO 320. Lecture, reading and discussion on the evolutionary processes that shape major patterns of plant diversity. Topics include but are not restricted to: local adaptation, floral and mating system evolution, polyploidy, genome evolution, and speciation. Level: Undergraduate-Graduate

**BIOE 490 - Advanced Undergrad Research. 1-10 Credits.**

(R-10) Offered every term. Restricted to students with junior or senior standing. Independent research under the direction of a faculty member. Graded credit/no credit. Level: Undergraduate

**BIOE 594 - Seminar. 1-4 Credits.**

(R-8) Offered intermittently. Presentations by student, faculty, and associates on issues and topics in their field. Level: Graduate

## Biology - General (BIOB)

**BIOB 101N - Discover Biology. 3 Credits.**

Offered every term. Offered on Mountain Campus and at Missoula College. Contemporary exploration of the organization and complexity of living organisms and the systems in which they live. The central questions of biology – the relationship between form and function, acquisition and use of energy, and continuity between generations will be addressed through lectures and laboratory investigations. Gen Ed Attributes: Natural Science Lab Course, Natural Science

**BIOB 109N - Montana Ecosystems. 3 Credits.**

Offered autumn and spring. Offered at Missoula College. An introduction to the landscapes and ecosystem diversity of Montana, with an emphasis on exploring the dominant habitats of western Montana. Required, integrated laboratory includes field trip investigations, classroom lab exercises, and presentations.

Gen Ed Attributes: Natural Science Lab Course, Natural Science

**BIOB 125 - Apprentice-Level Beekeeping. 2 Credits.**

This course aims to teach the basic beekeeping of honey bees. Participants will gain a general knowledge of honey bee biology and how to care for honey bees throughout the year. Students will be taught how to recognize common honey bee ailments and pests and the methods for treating them. After completion, students will know how to manage honey bee colonies for maximum bee health and honey production as well as a general understanding of basic insect biology.

**BIOB 160 - Principles of Living Systems. 3 Credits.**

Offered every term. Non-science majors are encouraged to take either BIOB 101N (Discover Biology) or BIOB 170N (Principles of Biological Diversity) instead of BIOB 160. Unifying principles of biological structure-function relationships at different levels of organization and complexity. Consideration of reproduction, genetics, development, evolution, ecosystems, as well as the inter-relationships of the human species to the rest of life. Students requiring a laboratory should also register for BIOB 161N.

**BIOB 161N - Principles of Living Systems Lab. 1 Credit.**

Offered autumn and summer. Coreq. or prereq., BIOB 160. Lab experiences illustrate biological principles underlying growth, reproduction, development, genetics and physiology, and are designed to give students practice in scientific methods of description, development of hypotheses, and testing.

Gen Ed Attributes: Natural Science Lab Course, Natural Science

**BIOB 170N - Principles of Biological Diversity. 3 Credits.**

Offered spring. Survey of the diversity, evolution and ecology of life including prokaryotes, viruses, protista, fungi, plants and animals.

Gen Ed Attributes: Natural Science

**BIOB 171N - Principles of Biological Diversity Lab. 2 Credits.**

Offered spring. Prereq. or Coreq., BIOB 170N. The diversity of life including prokaryotes, viruses, protista, fungi, plants and animals including structure and evolutionary relationships.

Gen Ed Attributes: Natural Science Lab Course, Natural Science

**BIOB 191 - Special Topics. 1-6 Credits.**

Experimental offerings of visiting professors, experimental offerings of new courses, or one-time offerings of current topics.

**BIOB 194 - Your Future in Biology. 1 Credit.**

Your Future in Biology is a one-credit seminar that will introduce students to the diverse set of careers that are available with a biology degree. Interactions with the instructor and visiting speakers will highlight the suite of skills that a degree in biology provides and that are required to tackle crucial challenges in healthcare, genomics, biotechnology, environmental science, conservation, and other biology-focused careers. Students will directly engage with world-class researchers and successful professionals using their training in biology to solve important problems and to provide essential services to society. Along the way, speakers will share their personal stories and academic journeys to help students better understand the many pathways to success with a degree in biology. Students will also interact regularly with members of the Division of Biological and Biomedical Sciences, including the Associate Dean, to help them establish meaningful and lasting connections at UM. Graded credit/no-credit only.

**BIOB 198 - Internship. 1-6 Credits.**

(R-6) Extended classroom experience that provides practical application of learning during placement off campus. Prior approval must be obtained from the faculty supervisor. A maximum of 6 credits of Internship (198, 298, 398, 498) may count toward graduation.

**BIOB 210N - Communicating Biology. 3 Credits.**

Offered autumn and spring. Prereq., WRIT 101 or WRIT 201. Offered at Missoula College. An examination of modern methods for sharing scientific discovery with an emphasis on biological issues related to the human experience.

Gen Ed Attributes: Natural Science, Writing Across the Curriculum

**BIOB 220 - Our Environment & Us. 3 Credits.**

This course approaches the topic of environmental ethics from a biology perspective. We will discuss the specific environmental consequences of human behavior as well as their potential ethical implications. It is largely a readings and writings class, although some lecture material will be presented, and assigned readings and thoughtful written responses will constitute a significant portion of the coursework. The class is divided into four units. In the first unit, we will explore concepts related to the value of the natural world: anthropocentrism, instrumental and intrinsic value, moral importance of species, environmental stewardship, and ecological sabotage. The second unit will delve into the ethics involved in our interaction with animals: animal moral worth, well-being, and the morality of animal use in research, meat consumption, factory farming, and animal captivity for conservation and education. The third unit centers on climate change topics: the grave complexity of biological consequences, strategies such as the polluter-pays approach, personal responsibility, indigenous viewpoints, technological solutions, and rejection of climate science. In the last unit, we will cover issues related to future human generations: ethical considerations of having kids, excess consumption, population growth, and what is the moral value of unborn generations.

Gen Ed Attributes: Ethical & Human Values

**BIOB 225 - Journeyman-Level Beekeeping. 3 Credits.**

Prereq., BIOB 125. This course will cover topics such as the honeybees' interaction and relation to native pollinators and the plants they work with as well as a look into pesticide uses and truths. The student will be given detailed instruction on the honeybees' internal anatomy and structures and the uses of their unique external anatomy. Students will learn to use the microscope and understand how it is used in diagnosing insect diseases and pests. By the end of the course, students will understand the honeybees' place in the ecosystem and how their unique anatomy contributes to their interactions with the world both inside and outside the hive.

**BIOB 226N - General Science: Chemical & Life Sciences. 5 Credits.**

Offered spring. Prereq. or coreq., M 132. Integrated lectures, laboratory exercises, and field trips on topics in chemical and biological science for prospective elementary school teachers and the non-scientist. Two two-hour laboratory sessions are required each week.

Gen Ed Attributes: Natural Science Lab Course, Natural Science

**BIOB 260 - Cellular and Molecular Biology. 4 Credits.**

Offered autumn and summer. Prereq., BIOB 160 (preferred) or BCH 110/ BCH 111 (preferred) or B- or higher in BIOH 112; and either CHMY 123 or CHMY 143N. Analytical exploration of the structure and function of the cell, the fundamental unit of life, with an emphasis on energy transformations and information flow. Topics include molecular building blocks, membranes, organelles, and mechanisms of replication, gene expression, metabolism, signal transduction, cell birth, cell death, and cell differentiation.

**BIOB 272 - Genetics and Evolution. 4 Credits.**

Offered spring. Prereq., either BIOB 260; OR both BIOB 160 and BIOB 170N; OR just BIOB 160 with a B- or better; AND one of M 121, 122, 151, 162, or 171; OR Maplesoft Pre-Calculus  $\geq 10$ ; OR Maplesoft Algebra  $\geq 17$ ; OR EdReady Math placement level 4. Principles and mechanisms of inheritance and evolution. Population genetics, fossil record, macroevolution, speciation, extinction, systematics, molecular evolution.



**BIOB 277 - Natural Beekeeping: Integrating Honey Bee Ecology into Modern Beekeeping. 2 Credits.**

Prereq., BIOB 125. This course introduces a method of beekeeping that, as best we can, emulates how bees naturally occur in nature while promoting the practices that qualify us as beekeepers, not just people with a hive in the backyard. This course is designed to introduce the beekeeper to a method of beekeeping that incorporates the behaviors and preferences of naturally nesting colonies into managed beekeeping practices.

**BIOB 291 - Special Topics. 1-6 Credits.**

(R-6) Offered intermittently. Experimental offerings of visiting professors, experimental offerings of new courses, or one-time offerings of current topics.

**BIOB 295 - Student Teaching. 1-6 Credits.**

(R-6) Offered intermittently. Offered at Missoula College. Organized student teaching.

**BIOB 298 - Internship. 1-6 Credits.**

Offered intermittently. Extended classroom experience that provides practical application of learning during placement off campus. Prior approval must be obtained from the faculty supervisor. A maximum of 6 credits of Internship (198, 298, 398, 498) may count toward graduation.

**BIOB 301 - Developmental Biology. 3 Credits.**

Offered autumn. Prereq., BIOB 260. BIOB 272 is recommended. An analysis of the origin and development of form and patterns in organisms, stressing the processes of growth and differentiation in plants and animals. Graded traditional letter grade only.

**BIOB 325 - Master-Level Beekeeping. 3 Credits.**

Prereq., BIOB 225. The Master course is the third and final level in the Master Beekeeping curriculum. It offers a more detailed look into bee flight, anatomy, and reproduction, discusses bee pheromones and genetics, and provides templates for record-keeping for improved bee management. The course also covers hive products, bee nutrition, selection of apiary locations, and basic principles for conducting your own experiments. By the end of the course, students will have a better understanding of advanced bee management and an introduction to the beekeeping business. They should be ready to develop and maintain healthy hives for hobbyists and larger-scale endeavors.

**BIOB 375 - General Genetics. 3 Credits.**

Offered spring. Prereq., BIOB 260 and 272. This course will focus on the molecular genetics of eukaryotes, with special emphasis on transmission genetics and gene structure and regulation.

**BIOB 390 - Undergraduate Research. 1-10 Credits.**

(R-10) Offered every term. Independent research under the direction of a faculty member. Graded credit/no credit.

**BIOB 391 - Special Topics. 1-10 Credits.**

(R-10) Offered intermittently. Experimental offerings of visiting professors, experimental offerings of new courses, or one-time offerings of current topics.

**BIOB 392 - Independent Study. 1-10 Credits.**

(R-10) Offered every term. Experimental offerings of visiting professors, experimental offerings of new courses, or one-time offerings of current topics.

**BIOB 395 - Practicum. 1-12 Credits.**

(R-12) Organized field experience in biology.

**BIOB 398 - Internship. 1-6 Credits.**

(R-6) Offered every term. Extended classroom experience that provides practical application of learning during placement off campus. Prior approval must be obtained from the faculty supervisor. A maximum of 6 credits of Internship (198, 298, 398, 498) may count toward graduation.

**BIOB 410 - Immunology. 3 Credits.**

Offered autumn. Prereq., BIOB 260. Current concepts and methods in Immunology. Level: Undergraduate-Graduate

**BIOB 411 - Immunology Laboratory. 2 Credits.**

Offered autumn. Prereq. or coreq., BIOB 410. Modern techniques for analysis of immune responses. Level: Undergraduate-Graduate

**BIOB 425 - Advanced Cellular & Molecular Biology. 3 Credits.**

Offered spring. Prereq., BIOB 260 and BIOB 272. BCH 380 or BCH 480 is strongly recommended. Cell structure and function, cell cycle, cellular signaling, molecular basis of cancer, regulated cell death, membrane transport, organelle dynamics, cytoskeleton, cell adhesion, and the molecular basis of learning and memory. Level: Undergraduate-Graduate

**BIOB 435 - Comparative Animal Physiology. 3 Credits.**

Offered Spring. Prereq., BIOB 260. Animal physiology with emphasis on diversity of functional processes, with strong links to broader ecological and evolutionary contexts. Level: Undergraduate-Graduate

**BIOB 467 - Molecular Analysis of Development. 2 Credits.**

Offered alternate spring semesters. This course covers key topics in developmental biology through the detailed study of the primary literature. Seminar topics are updated for each year the course is offered and listed in syllabus. With help of the instructor, the students present each topic and lead a discussion each class period based on the assigned research paper and one or two review articles to provide background on the topic. CR/NCR only (no letter grade). Level: Undergraduate

**BIOB 468 - Endocrinology. 3 Credits.**

Offered intermittently. Prereq., BIOB 260 and BIOB 272. Integration of fundamental concepts of endocrinology (such as hormone release, hormone transport and receptor activation) into complex systems (such as reproduction). Level: Undergraduate-Graduate

**BIOB 480 - Conservation Genetics. 3 Credits.**

Offered spring. Prereq., BIOB 272. Genetic basis for solving biological problems in conservation including the genetics of small populations, the application of molecular genetic techniques to conservation biology and case studies of the application of genetics to conservation problems. Level: Undergraduate-Graduate

**BIOB 483 - Phylogenetics and Evolution. 3 Credits.**

Offered autumn semester, odd-numbered years. Prereq., BIOB 260 and BIOB 272. Phylogenies, or evolutionary trees, provide insights into the history of life on Earth, including our own origins. This course focuses on the theoretical foundations of popular methods of reconstructing phylogenies from molecular sequence data and how to implement these methods with computational software for real data sets. Other current methods for testing evolutionary hypotheses with sequence data will also be introduced. Level: Undergraduate-Graduate

**BIOB 486 - Genomics. 3 Credits.**

Offered spring. Prereq., BIOB 272. Principles and mechanisms of genome biology of animals and microbes, including genome function, evolution, and basic molecular and computational methodology used in genome biology. Level: Undergraduate-Graduate



**BIOB 490 - Advanced Undergraduate Research. 1-10 Credits.**

(R-10) Offered every term. Restricted to students with junior or senior standing. Independent research under the direction of a faculty member. Graded credit/no credit. Level: Undergraduate

**BIOB 491 - Special Topics. 1-10 Credits.**

(R-10) Offered intermittently. Experimental offerings of visiting professors, experimental offerings of new courses, or one-time offerings of current topics. Level: Undergraduate-Graduate

**BIOB 492 - Independent Study. 1-10 Credits.**

(R-10) Offered every term. Course material appropriate to the needs and objectives of the individual student. Level: Undergraduate-Graduate

**BIOB 494 - Seminar in Biology. 1 Credit.**

(R-3) Offered intermittently. A review and discussion of current research. Topics vary. Level: Undergraduate-Graduate

**BIOB 495 - Practicum. 1-12 Credits.**

(R-12) Organized field experience in biology. Level: Undergraduate and Graduate

**BIOB 498 - Internship. 1-6 Credits.**

(R-6) Offered every term. Extended classroom experience that provides practical application of learning during placement off campus. Prior approval must be obtained from the faculty supervisor. A maximum of 6 credits of Internship (198, 298, 398, 498) may count toward graduation. Level: Undergraduate

**BIOB 499 - Undergraduate Thesis. 3-6 Credits.**

(R-6) Offered every term. Restricted to students with senior standing. Preparation of a thesis or manuscript based on undergraduate research for presentation and/or publication. Student must give oral or poster presentation at the Biological Sciences Undergraduate Research Symposium or a scientific meeting. Level: Undergraduate

**BIOB 505 - OBE Core Course - Genetics and Evolution. 4 Credits.**

Offered every other autumn. Exploration of the fundamental concepts and approaches in evolutionary biology, functional biology and evolutionary genetics with evolutionary ecology woven throughout. Lectures and discussions, with an emphasis on primary literature, classic and contemporary. Level: Graduate

**BIOB 506 - OBE Core Course - Ecology. 4 Credits.**

Offered alternate years. Broad overview of population and community ecology. Lectures and discussions, introducing theoretic foundations and exploring classic and more recent empirical tests of ecological theory with relevant topics in evolutionary ecology and functional biology woven throughout. Level: Graduate

**BIOB 518 - Plant-Consumer Interactions. 3 Credits.**

Offered alternate years. Prereq., BIOE 370. Ecology and evolution of plant-consumer interactions. Review of classic and contemporary literature on plant-consumer interactions. Level: Graduate

**BIOB 522 - Readings in Morphology, Physiology, and Zoology. 1 Credit.**

(R-8) Review and discussion of current literature in the fields of morphology, physiology, and ecology. Level: Graduate

**BIOB 524 - Physiological Plant Ecology. 3 Credits.**

Offered alternate years. Prereq., BIOE 370 and BIOO 433. The physiological basis of plant adaptation and response to the environment. Level: Graduate

**BIOB 541 - Electron Microscopy Lab. 1-6 Credits.**

(R-6) Practical laboratory experience in the preparation of various samples and hands-on operation of the transmission and/or scanning electron microscopes. Level: Graduate

**BIOB 547 - Experimental Molecular, Cellular, and Chemical Biology. 1 Credit.**

(R-14) Focus on experimental design, methods, and presentation of experimental results for graduate students in laboratories with a molecular, cellular or chemical biological focus. Level: Graduate

**BIOB 551 - Environmental Field Study. 1-3 Credits.**

(R-3) Prereq. or coreq., ENSC 540 or ENST 560. Designing, executing, and interpreting environmental studies. Project oriented. Level: Graduate

**BIOB 561 - Population Genetics Seminar. 1-2 Credits.**

(R-12) Current topics in population genetics, evolutionary biology, molecular evolution and related topics. Level: Graduate

**BIOB 567 - Molecular Analysis of Development. 2 Credits.**

Offered alternate spring semesters. This course covers key topics in developmental biology through the detailed study of the primary literature. Seminar topics are updated for each year the course is offered and listed in syllabus. With help of the instructor, the students present each topic and lead a discussion each class period based on the assigned research paper and one or two review articles to provide background on the topic. Graded CR/NCR only. Level: Graduate

**BIOB 590 - Research. 1-8 Credits.**

(R-12) Directed individual research and study appropriate to the background and objectives of the student. Level: Graduate

**BIOB 591 - Special Topics. 1-4 Credits.**

(R-22) Experimental offering of new courses by resident or visiting faculty. Level: Graduate

**BIOB 592 - Independent Study. 1-8 Credits.**

(R-8) Course material appropriate to the needs and objectives of the individual student. Level: Graduate

**BIOB 594 - Seminar in Biology. 1 Credit.**

(R-6) A review and discussion of current research in biology. Topics vary. Level: Graduate

**BIOB 598 - Internship. 1-8 Credits.**

(R-8) Extended classroom experience that provides practical application of learning during placement off campus. Prior approval must be obtained from the faculty supervisor. Level: Graduate

**BIOB 599 - Thesis. 1-10 Credits.**

(R-10) Field and laboratory research and the writing of a student's master's thesis. Level: Graduate

**BIOB 691 - Special Topics. 1-6 Credits.**

(R-24) Experimental offering of new courses by resident or visiting faculty. Level: Graduate

**BIOB 699 - Dissertation. 1-10 Credits.**

(R-20) Credit for field and laboratory research and the writing of a student's doctoral dissertation. Level: Graduate

## Biology - Human (BIOH)

**BIOH 104N - Basic Human Biology. 3 Credits.**

Offered autumn and spring. Missoula College. A one semester course with laboratory focusing on learning scientific principles and a general understanding of human functional anatomy and physiological processes.

Gen Ed Attributes: Natural Science

**BIOH 105N - Basic Human Biology Laboratory. 1 Credit.**

Missoula College. Basic human biology lab is required laboratory for students enrolled in BIOH 104N. Lab activities provide hands-on, investigative instruction in the fundamentals of anatomy and physiology of the human body. Exploration of anatomy using models, preserved materials and demonstrations reinforces principals taught in accompanying lecture.

Gen Ed Attributes: Natural Science Lab Course, Natural Science

**BIOH 112 - Human Form and Function I. 3 Credits.**

Offered autumn. Explores the fundamentals of structure and function at basic cellular and tissue levels, in addition to the anatomy and physiology of the integumentary, musculoskeletal, and nervous systems.

**BIOH 113 - Human Form and Function II. 3 Credits.**

Offered spring. Explores the fundamental structures and functions of the endocrine, cardiovascular, respiratory, digestive, urinary and reproductive systems.

**BIOH 191 - Special Topics. 1-6 Credits.**

(R-6) Experimental offerings of visiting professors, experimental offerings of new courses, or one-time offerings of current topics.

**BIOH 201N - Human Anatomy & Physiology I. 4 Credits.**

Offered autumn and spring. Offered at Missoula College. Restricted to students in the following majors: Missoula College Health Professions and Pre-Health Professions majors, Medical Information Technology, Pre-Physical Therapy, Athletic Training, Integrative Physiology, and Health & Human Performance. Introductory science course or college-prep high school biology course recommended. Comprehensive knowledge of human form and function necessary for students preparing for health-related professions. Emphasis on structure, function and homeostatic regulation of body systems with presentation of basic concepts in chemistry and microbiology as they relate to human anatomy and physiology. Covers tissues through nervous system. Required, integrated laboratory includes some dissection.

Gen Ed Attributes: Natural Science Lab Course, Natural Science

**BIOH 202N - Human Anatomy and Physiology I Lab. 0 Credits.**

Offered autumn and spring. Offered at Missoula College. Coreq., BIOH 201N. Restricted to students in the following majors: Missoula College Health Professions and Pre-Health Professions majors, Medical Information Technology, Pre-Physical Therapy, Athletic Training, Integrative Physiology, and Health & Human Performance. Gen Ed Attributes: Natural Science Lab Course (N)Required companion laboratory for BIOH 201N. Comprehensive study of tissues and gross human anatomy necessary for students in health-related programs. Emphasis on typical structure and function as they relate to health. Topics include tissues through nervous system. Laboratory activities include some dissection and study of human cadaver.

Gen Ed Attributes: Natural Science Lab Course, Natural Science

**BIOH 211N - Human Anatomy and Physiology II. 4 Credits.**

Offered autumn and spring. Offered at Missoula College. Prereq., BIOH 201N. Coreq., BIOH 212N. Restricted to students in the following majors: Missoula College Health Professions and Pre-Health Professions majors, Medical Information Technology, Pre-Physical Therapy, Athletic Training, and Health & Human Performance. Comprehensive knowledge of human form and function necessary for students in health-related programs. Emphasis on structure function and homeostatic regulation of body systems with presentation of basic concepts in chemistry and microbiology as they relate to human anatomy and physiology. Covers endocrine through reproductive systems. Required integrated laboratory includes frequent dissection.

Gen Ed Attributes: Natural Science Lab Course, Natural Science

**BIOH 212N - Human Anatomy and Physiology II Lab. 0 Credits.**

Offered autumn and spring. Offered at Missoula College. Coreq., BIOH 211N. Restricted to students in the following majors: Missoula College Health Professions and Pre-Health Professions majors, Medical Information Technology, Pre-Physical Therapy, Athletic Training, and Health & Human Performance. Required companion laboratory for BIOH 211N. Basic knowledge necessary for students in health-related programs. Emphasis on normal anatomy and physiology with presentation of basic concepts in chemistry and microbiology as they relate to human anatomy and physiology. Covers endocrine through reproductive systems. A cadaver lab is included.

Gen Ed Attributes: Natural Science Lab Course, Natural Science

**BIOH 291 - Special Topics. 1-6 Credits.**

(R-6) Offered intermittently. Experimental offerings of visiting professors, experimental offerings of new courses, or one-time offerings of current topics.

**BIOH 292 - Independent Study. 1-6 Credits.**

(R-6) Offered intermittently. Course material appropriate to the needs and objectives of the individual student.

**BIOH 295 - Student Teaching. 1-6 Credits.**

(R-6) Offered intermittently. Offered at Missoula College. Organized student teaching.

**BIOH 365 - Human Anatomy and Physiology for Health Professions I. 3 Credits.**

Offered autumn. Prereq., CHMY 121N or CHMY 141N; BIOB 160 or BIOH 112 or 113. Introduction to basic cellular structure and function. The fundamental facts and concepts of the anatomy and physiology of cells and tissues, the integumentary, musculoskeletal, nervous and special senses with an emphasis on clinical application for students preparing for careers in health care. Laboratory component includes presentation of cadaver prosections and models.

**BIOH 366 - Human Anatomy and Physiology for Health Professions I Laboratory. 1-2 Credits.**

Offered autumn. Prereq. or coreq., BIOH 365. Laboratory-based instruction in the fundamental facts and concepts of the anatomy and physiology of cells and tissues, the integumentary, musculoskeletal, nervous and special senses with an emphasis on clinical application for students preparing for careers in health care. The laboratory uses cadavers and models.

**BIOH 370 - Human Anatomy and Physiology for Health Professions II. 3 Credits.**

Offered spring. Prereq., BIOH 365. The fundamental facts and concepts of the anatomy and physiology of the endocrine, circulatory, respiratory, digestive, urinary and reproductive systems with an emphasis on clinical application for students preparing for careers in health care.

**BIOH 371 - Human Anatomy and Physiology for Health Professions II Laboratory. 1-2 Credits.**

Offered spring. Prereq. or coreq., BIOH 370. Laboratory-based instruction in the fundamental facts and concepts of the anatomy and physiology of the endocrine, circulatory, respiratory, digestive, urinary and reproductive systems with an emphasis on clinical application for students preparing for careers in health care. The laboratory uses cadaver prosections and models.

**BIOH 398 - Internship. 1-6 Credits.**

(R-6) Offered every term. Extended classroom experience that provides practical application of learning during placement off campus. Prior approval must be obtained from the faculty supervisor. A maximum of 6 credits of Internship (198, 298, 398, 498) may count toward graduation.

**BIOH 405 - Hematology. 3 Credits.**

Offered spring, odd numbered years. Prereq., BIOH 365 or BIOH 201N. Requires junior standing. This course is intended to introduce the student to normal and pathologic hematology, with emphasis on blood cell development, cellular components, and normal vs. abnormal morphology. Clinical laboratory testing will be presented as a way to diagnose and monitor disease progression. Normal and pathologic coagulation will likewise be addressed. Treatment options for disease states will also be covered. Laboratory exercises will instruct the student in proper specimen collection, preparation of peripheral blood smears, microscopic examination of blood smears, and other manual tests associated with blood and coagulation studies. Level: Undergraduate-Graduate

**BIOH 447 - Genes and Development Lab. 3 Credits.**

Offered spring semester odd years. Prereq., BIOB 260. BIOB 272, BIOB 301, and BIOB 375 are recommended. This is a laboratory course that will introduce the students to the tools and methods for investigating how genetic information drives animal development and to using model organisms for studying genes associated with human disease. Students will gain practical experience in experimental design, data collection, results analysis, and scientific communication. Students will perform research independently or in a small group as well as attend formal classroom presentations and discussion. Level: Undergraduate

**BIOH 461 - Human Anatomy and Physiology I Tutor. 3 Credits.**

Offered autumn. Prereq., BIOH 365 with a minimum grade of B. This select group of students performs tutoring for students enrolled in BIOH 365 and assists in preparation and grading of lecture and laboratory course teaching materials. Students enrolled in BIOH 461 have the option of co-enrolling in the cadaver dissection course. Level: Undergraduate

**BIOH 462 - Principles of Medical Physiology. 3 Credits.**

Offered intermittently. Prereq., WRIT 101; and BIOH 365, 370, and either CHMY 123 or 143N with a minimum grade of C. An advanced course in human physiology for students preparing for careers in health care. Level: Undergraduate-Graduate

Gen Ed Attributes: Writing in the Disciplines

**BIOH 463 - Human Anatomy and Physiology II Tutor. 3 Credits.**

Offered spring. Prereq., BIOH 370 with a minimum grade of B. This select group of students performs tutoring for students enrolled in BIOH 370 and assists in preparation and grading of lecture and laboratory course teaching materials. Students enrolled in BIOH 463 have the option of co-enrolling in the cadaver dissection course. Level: Undergraduate

**BIOH 470 - Summer Clinical Laboratory. 12 Credits.**

Offered summer. Students must have successfully completed the Medical Laboratory Science 3+1 on-campus curriculum and be admitted into an affiliated clinical practicum program. Professional training in clinical laboratory sciences for medical laboratory science. Level: Undergraduate

**BIOH 471 - Professional Training I. 13 Credits.**

Offered autumn. Prereq., BIOH 470. Continuation of BIOH 470. Professional training at clinical site(s). Level: Undergraduate

**BIOH 472 - Professional Training II. 12 Credits.**

Offered spring. Prereq., BIOH 471. Continuation of BIOH 471. Professional training at clinical site(s). Level: Undergraduate

**BIOH 480 - Teaching Anatomy & Physiology I. 3-4 Credits.**

Offered autumn. Prereq., BIOH 365 and 370 with a minimum grade of B. This select group of students assists in preparation and grading of demonstrations and laboratory teaching materials and provides laboratory anatomy and physiology instruction to undergraduate students enrolled in BIOH 365. Students enrolling for the 4 credit option will also provide occasional comparable assistance for BIOH 112. Level: Undergraduate

**BIOH 481 - Teaching Anatomy & Physiology II. 3-4 Credits.**

Offered spring. Prereq., BIOH 365 and 370 with a minimum grade of B. This select group of students assists in the preparation and grading of demonstrations and laboratory teaching materials and provides laboratory anatomy and physiology instruction to undergraduate students. Students enrolling for the 4 credit option will also provide occasional comparable assistance for BIOH 113. Level: Undergraduate

**BIOH 491 - Special Topics. 1-10 Credits.**

(R-10) Offered intermittently. Experimental offerings of visiting professors, experimental offerings of new courses, or one-time offerings of current topics. Level: Undergraduate-Graduate

## Biology - Microbiology (BIOM)

**BIOM 250N - Microbiology for Health Sciences. 3 Credits.**

Offered spring and summer. Infectious diseases, including concepts of virulence, resistance, prevention and control of microbial diseases in the individual and in the community. If laboratory experience is desired, the student may enroll concurrently in BIOM 251. Credit not allowed toward a major in microbiology.

Gen Ed Attributes: Natural Science

**BIOM 251 - Microbiology Health Sciences Lab. 1 Credit.**

Offered spring. Prereq. or coreq., BIOM 250N. Observation of live microorganisms, their characteristics and activities. Experience with microbiological techniques. Credit not allowed toward a major in microbiology.

**BIOM 291 - Special Topics. 1-6 Credits.**

(R-6) Experimental offerings of visiting professors, experimental offerings of new courses, or one-time offerings of current topics.

**BIOM 327 - Vector-Borne Diseases: Public Health Perspectives. 3 Credits.**

Offered autumn. Restricted to students with at least junior standing.

An exploration of major vector-borne diseases including Lyme disease, malaria, dengue fever, yellow fever, Zika, etc. Lectures will cover disease history, biology and transmission dynamics, geographic and demographic trends, intervention strategies, and relationships to climate change. Students will be encouraged to bring perspectives from any major field of study to discussions of the public health challenges of vector-borne diseases in the 21st century.

**BIOM 360 - General Microbiology. 3 Credits.**

Offered autumn and summer. Prereq., CHMY 123 or 143N. Prereq. or coreq., BIOB 260. Microbial structure and function, growth and reproduction, physiology, ecology, genetics, environmental factors, control of microorganisms and sterility, antimicrobial agents, microbial diversity.

**BIOM 361 - General Microbiology Lab. 2 Credits.**

Offered autumn. Prereq. or coreq., BIOM 360. Basic microbiology procedures and techniques.

**BIOM 390 - Undergraduate Research. 1-6 Credits.**

(R-12) Offered every term. Independent research under the direction of a faculty member. Graded credit/no credit.

**BIOM 402 - Pathogenic Microbes. 3 Credits.**

Offered spring. Prereq., BIOM 360. A study of the pathogenic bacteria and fungi and the diseases they produce. Level: Undergraduate-Graduate

**BIOM 403 - Pathogenic Microbes Laboratory. 2 Credits.**

Offered spring. Prereq., BIOM 361. Prereq. or coreq., BIOM 402. Laboratory study of pathogenic bacteria and fungi. Level: Undergraduate-Graduate

**BIOM 407 - Clinical Diagnosis. 2 Credits.**

Offered spring. Prereq., BIOM 360 & BIOM 361; or BIOH 365 & BIOH 366; or BIOM 402 & BIOM 403 (may concur). Principles of blood chemistry, urinalysis, blood banking, serology and other clinical parameters of disease and health. Level: Undergraduate-Graduate

**BIOM 408 - Clinical Diagnosis Lab. 1 Credit.**

Offered spring. Prereq. or coreq., BIOM 407. Clinical diagnostic methods. Level: Undergraduate-Graduate

**BIOM 410 - Microbial Genetics. 3 Credits.**

Offered spring even-numbered years. Prereq., BIOM 360 and BIOM 361. The molecular genetics of prokaryotic organisms including: structure and replication of the prokaryotic chromosome; gene expression; mutagenesis and DNA repair; plasmids and other tools of genetic engineering; transmission of genetic material and recombination in prokaryotes; regulation of gene expression in prokaryotes; recombinant DNA and biotechnology. Level: Undergraduate-Graduate

**BIOM 411 - Experimental Microbial Genetics Lab. 1 Credit.**

Offered spring even-numbered years. Prereq. or coreq., BIOM 410. Experiments in microbial genetics: Analysis of genes and genomes. Level: Undergraduate-Graduate

**BIOM 415 - Microbial Diversity Ecology & Evolution. 3 Credits.**

Offered spring. Prereq., BIOB 260. BIOB 272 and BIOM 360 are recommended. A broad overview of the physiological, phylogenetic and genomic diversity and ecology of microorganisms within a framework of general ecological principles. Focuses on microbial interactions with their environment at the level of the individual, population and community, including intimate associations with plants and animals. Surveys current methods for studying microbial ecology and diversity in the environment. Level: Undergraduate-Graduate

**BIOM 420 - Host-Microbe Interactions. 3 Credits.**

Offered intermittently. Prereq., BIOB 260 and BIOB 272. Many organisms on the planet are hosts that interact with a diversity of microbes. Understanding these interactions is crucial to explain patterns of biodiversity and to improve the quality of human life. This course explores the diversity of host-microbe interactions in nature using the primary scientific literature as our guide. Level: Undergraduate  
Gen Ed Attributes: Writing in the Disciplines

**BIOM 427 - General Parasitology. 2 Credits.**

Offered autumn. Prereq., BIOB 272. Parasitism as a biological phenomenon, origin of parasitism, adaptations and life cycles, parasite morphology, fine structure, physiology, parasites and their environment. Level: Undergraduate-Graduate

**BIOM 428 - General Parasitology Lab. 2 Credits.**

Offered autumn. Coreq., BIOM 427. Taxonomy, morphology and identification of parasitic protozoa, helminths and arthropods. Level: Undergraduate-Graduate

**BIOM 435 - Virology. 3 Credits.**

Offered spring. Prereq., BIOB 260. The general nature of viruses, with emphasis on the molecular biology of animal and human viruses. Co-convenes with BIOM 535. Level: Undergraduate

**BIOM 450 - Microbial Physiology. 3 Credits.**

Offered autumn, odd-numbered years. Prereq., BIOM 360. Microbial structure and function, physiological diversity, microbial metabolism, role of microbial activity in the environment. Level: Undergraduate-Graduate

**BIOM 451 - Microbial Physiology Lab. 1 Credit.**

Offered autumn, odd-numbered years. Prereq., BIOM 361. Prereq. or coreq., BIOM 450. Experimental approaches to analysis of microbial structure, composition and metabolism. Level: Undergraduate-Graduate

**BIOM 460 - Ecology of Infectious Diseases. 3 Credits.**

Offered spring. In this course, we will take an ecological approach to understand infectious diseases. We will examine how diseases spread through time and space, and examine mathematical models of disease spread and their usefulness in control strategies. We will discuss case studies of both human and animal diseases, and the ecological concepts that apply to a wide range of systems. Level: Undergraduate-Graduate

**BIOM 490 - Advanced Undergraduate Research. 1-10 Credits.**

(R-10) Offered every term. Prereq., BIOM 360. Restricted to students with at least junior standing. Independent research under the direction of a faculty member. Graded credit/no credit. Level: Undergraduate

**BIOM 491 - Special Topics. 1-10 Credits.**

(R-10) Offered intermittently. Experimental offerings of new courses, experimental offerings of visiting professors, or one-time offerings of current topics. Level: Undergraduate-Graduate

**BIOM 494 - Seminar. 1 Credit.**

(R-3) Offered intermittently. Restricted to students with senior standing. Recent topics in microbiology and related subjects. Level: Undergraduate

**BIOM 498 - Internship. 1-6 Credits.**

(R-6) Offered every term. Extended classroom experience which provides practical application of classroom learning during placements off campus. Level: Undergraduate

**BIOM 499 - Undergraduate Thesis. 3-6 Credits.**

(R-6) Offered every term. Restricted to students with senior standing. Preparation of a thesis or manuscript based on undergraduate research for presentation and/or publication. Student must give an oral or poster presentation at the Biological Sciences Undergraduate Research Symposium or a scientific meeting. Level: Undergraduate

**BIOM 502 - Advanced Immunology. 3 Credits.**

Offered autumn even-numbered years. Advanced topics and immunological techniques used in modern immunology. Level: Graduate

**BIOM 535 - Advanced Virology. 3 Credits.**

Coreq., BIOB 592. A "principles-based" discussion of virology, focusing on the molecular processes and events that must be completed by all viruses for successful replication within an individual host, and spread through host populations. The molecular basis of alternative replication strategies, the interactions of viruses with hosts organisms, and how these interactions lead to disease will be presented with examples drawn from a representative set of more well-understood animal viruses. BIOM 535 emphasizes independent, creative, critical thought. Co-convenes with BIOM 435. Level: Graduate

**BIOM 540 - Microbial Pathogenesis. 3 Credits.**

Offered fall. Current concepts in pathogenesis at the molecular and cellular levels. Focus is on microbial (viral, bacterial) and genetic factors leading to disease and the host's involvement in the process. Level: Graduate



**BIOM 546 - Experimental Microbial Ecology. 1 Credit.**

Offered every term. Focus on experimental design, methods, and presentation of experimental results in the area of microbial ecology. Level: Graduate

**BIOM 570 - Intro to Research. 1 Credit.**

(R-2) Offered autumn and spring. Required course for biochemistry and microbiology graduate students. Instruction in basic research techniques, research equipment and reading in the relevant scientific literature. Students conduct research projects under faculty mentors of their choosing. Level: Graduate

**BIOM 590 - Research. 1-18 Credits.**

(R-40) Offered intermittently. Directed individual research and study appropriate to the background and objectives of the student. Level: Graduate

**BIOM 591 - Special Topics. 1-6 Credits.**

(R-24) Offered intermittently. Experimental offerings of visiting professors, experimental offerings of new courses, or one-time offerings of current topics. Level: Graduate

**BIOM 592 - Independent Study. 1-6 Credits.**

(R-6) Course material appropriate to the needs and objectives of the individual student. Level: Graduate

**BIOM 594 - Molecular and Biomedical Sciences Seminar. 1 Credit.**

(R-14) Presentation of current research in biochemistry and molecular biology by senior graduate students, faculty, and invited outside speakers. Level: Graduate

**BIOM 599 - Thesis. 1-10 Credits.**

(R-10) Offered intermittently. Laboratory research for and preparation of a master's thesis. Level: Graduate

**BIOM 699 - Dissertation. 1-20 Credits.**

(R-20) Offered intermittently. Laboratory research for and preparation of a doctoral dissertation. Level: Graduate

## Biology - Organismal (BIOO)

**BIOO 105N - Introduction to Botany. 3 Credits.**

Offered spring. Introduction to the plant kingdom including anatomy, physiology and ecology.

Gen Ed Attributes: Natural Science Lab Course, Natural Science

**BIOO 320 - General Botany. 5 Credits.**

Offered intermittently. Prereq., BIOB 260 and BIOB 272. Anatomy, morphology, ecology and physiology of photosynthetic organisms.

**BIOO 335 - Rocky Mountain Flora. 4 Credits.**

Offered spring. A prior college-level course in biology is recommended. Systematics of vascular plants with primary focus on flowering plant diversity and regionally important taxonomic groups. This integrated lecture and laboratory emphasizes applying general botanical terminology, characterizing major plant groups to recognize them without keying and understanding their functions (ecology) and origins (evolution), and the use of dichotomous keys for plant identification down the species level.

**BIOO 340 - Biology and Management of Fishes. 4 Credits.**

Offered autumn. Prereq., BIOB 272 and either STAT 216 or WILD 240. Diversity, adaptations and ecology of fishes. Analysis and management of fish populations and communities.

**BIOO 395 - Field Work/Clinical/Practicum. 1-6 Credits.**

(R-12) Field work, clinical, or practicum experience in the biological sciences.

**BIOO 433 - Plant Physiology. 3 Credits.**

Offered intermittently. Prereq., BIOB 260. The molecular, biochemical and biophysical basis of plant function, from the subcellular to the whole organism level. Level: Undergraduate-Graduate

**BIOO 434 - Plant Physiology Lab. 1 Credit.**

Offered intermittently. Prereq. or coreq., BIOO 433. Laboratory exercises designed to familiarize students with concepts and techniques in plant physiology. Level: Undergraduate-Graduate

**BIOO 462 - Entomology. 4 Credits.**

Offered intermittently. Prereq. or coreq., BIOB 272. The classification, morphology, anatomy, development, life-history, behavior and ecology of insects. Labs include identification of major insect groups, internal and external anatomy and student collections. Level: Undergraduate-Graduate

**BIOO 470 - Ornithology. 4 Credits.**

Offered spring. Prereq., or corequisite BIOB 272. The classification, structure, evolution, behavior and ecology of birds. Level: Undergraduate-Graduate

**BIOO 475 - Mammalogy. 4 Credits.**

Offered autumn. Prereq., BIOB 272. The evolution, systematics, anatomy, physiology and ecology of mammals. Level: Undergraduate-Graduate

**BIOO 490 - Advanced Undergrad Research. 1-10 Credits.**

(R-10) Offered every term. Restricted to students of at least junior standing. Independent research under the direction of a faculty member. Level: Undergraduate-Graduate

## Biology - Systems Ecology (BIOS)

**BIOS 532 - Ecosystem Ecology. 4 Credits.**

Offered autumn every other year. This course includes the fundamentals of an ecosystem approach to ecological research by emphasizing relationships among physical, chemical, and biotic elements of interactive systems. It will provide a fundamental basis for more advanced Systems Ecology courses (e.g., Limnology, Integrated Systems Ecology, Landscape Genetics, etc.). Level: Undergraduate-Graduate

**BIOS 534 - Integrated Systems Ecology. 3 Credits.**

Offered spring semester alternate years. Principles, theories and empirical studies that describe the complex attributes and processes of coupled natural and human systems. Landscape, climate, economic and social change dynamics and processes emphasized. Flagship course of the UM-DBS Systems Ecology Program. Students strongly advised but not required to take BIOS 532 Fundamentals of Ecosystem Ecology prior to this course. Level: Undergraduate-Graduate

**BIOS 590 - Research. 1-15 Credits.**

(R-15) Directed individual research and study appropriate to the background and objectives of the student. Level: Graduate

**BIOS 591 - Special Topics. 1-6 Credits.**

(R-24) Offered intermittently. Experimental offerings of visiting professors, experimental offerings of new courses, or one-time offerings of current topics. Level: Graduate

**BIOS 594 - Seminar. 1-6 Credits.**

Offered intermittently. Presentations by student, faculty, and associates on issues and topics in their field. Level: Undergraduate-Graduate

**BIOS 599 - Thesis. 1-15 Credits.**

(R-15) Field and laboratory research on, and writing of, a student's masters thesis. Level: Undergraduate-Graduate



**BIOS 699 - Dissertation. 1-20 Credits.**

(R-20) Field and laboratory research on and writing of a student's doctoral dissertation. Level: Graduate

## Biomedical & Pharmaceutical Science (BMED)

**BMED 291 - Special Topics. 1-6 Credits.**

(R-6) Offered autumn and spring. Experimental offerings of visiting professors, experimental offerings of new courses, or one time offerings of current topics.

**BMED 545 - Research Lab Rotations in Pharmaceutical Sciences. 1-3 Credits.**

(R-6) Offered autumn and spring. Experience in research methods in departmental research laboratories. Level: Graduate

**BMED 581 - Research Seminar in Pharmaceutical Science. 1 Credit.**

(R-9) Offered autumn and spring. Oral and written presentations of experimental research results and selected literature topics in the pharmaceutical sciences. Level: Graduate

**BMED 583 - Research Seminar in Toxicology. 1 Credit.**

(R-9) Offered autumn and spring. Oral and written presentations of experimental research results and selected literature topics in toxicology. Level: Graduate

**BMED 590 - Research (MS). 1-10 Credits.**

(R-10) Offered every term. Directed individual research and study appropriate to the background and objectives of the student. Level: Graduate

**BMED 591 - Special Topics. 1-9 Credits.**

(R-24) Offered intermittently. Experimental offerings of visiting professors, experimental offerings of new courses, or one time offerings of current topics. Level: Graduate

**BMED 592 - Independent Study. 1-9 Credits.**

(R-9) Offered every term. Course material appropriate to the needs and objectives of the individual student. Level: Graduate

**BMED 594 - Seminar. 1 Credit.**

(R 6) Offered autumn and spring. Readings and discussion of current research literature. Level: Graduate

**BMED 599 - Thesis/Professional Paper (MS). 1-9 Credits.**

(R-10) Offered every term. Level: Graduate

**BMED 605 - Biomedical Research Ethics. 1 Credit.**

Offered spring. Overview of biomedical research ethics and regulations. Topics include ethics and morality in science, scientific integrity, conflicts of interest, human and animal experimentation, intellectual property, plagiarism. Level: Graduate

**BMED 609 - Biomedical Statistics. 3 Credits.**

Offered autumn. Experimental design and statistical analysis relevant to the biomedical sciences. Level: Graduate

**BMED 613 - Pharmacology I. 4 Credits.**

Offered autumn. Fundamentals of pharmacology and drug action. Level: Graduate

**BMED 614 - Pharmacology II. 4 Credits.**

Offered spring. Prereq., BMED 613. Fundamentals of pharmacology and drug action. Continuation of BMED 613. Level: Graduate

**BMED 615 - Molecular Pharmacology. 3 Credits.**

Offered alternate years. Focus on the basic theories, principles, and practical implications of receptor pharmacology to quantify drug activity. Major emphasis in pharmacodynamics with some time devoted to related pharmacokinetic parameters. Level: Graduate

**BMED 620 - Cardiovascular Pharmacology & Toxicology. 3 Credits.**

Offered alternate years. Recent advances in pharmacology and toxicology of the cardiovascular system. In-depth study of regulatory mechanisms and the effect of immune response and xenobiotics on cardiovascular function. Level: Graduate

**BMED 621 - Drug Design: Medicinal Chemistry and Pharmacology. 3 Credits.**

Offered in fall, alternate years. Students should have prior coursework in organic chemistry and biochemistry. Introduction to the main concepts in drug design and development including concepts and methods in medicinal chemistry and molecular pharmacology. Also covers computational methods for idea screening and lead development and the use of structural information in drug design and provides an overview of new chemical entity preclinical and clinical process. Level: Graduate

**BMED 622 - Drug Pharmacodynamics. 4 Credits.**

Offered alternate years. Organic Chemistry and Biochemistry or consent of instr. Introduction and topical coverage of how drugs form complexes with biological targets to cause an array of responses. Level: Graduate

**BMED 623 - Drug Diversity. 3 Credits.**

Offered alternate years. Organic Chemistry and Biochemistry or consent of instr. Topics in chemogenomics and diversity oriented synthesis will be covered. Level: Graduate

**BMED 624 - Methods in Medicinal Chemistry. 3 Credits.**

Offered intermittently. Novel approaches to small molecule therapeutics for disease targeting. Level: Graduate

**BMED 625 - Drug Synthesis. 3 Credits.**

Offered intermittently. An introduction to the past and current synthetic approaches and total syntheses of biologically active drugs. Level: Graduate

**BMED 626 - Research Methods in Biochemical Pharmacology. 1-3 Credits.**

(R-6) Offered every term. Laboratory course intended to familiarize students with the instruments, and expertise of current research techniques in the biomedical sciences. Level: Graduate

**BMED 627 - Professional Development. 1 Credit.**

Offered autumn and spring. Developmental training in presentations, writing, reviewing, literature research, teaching, research methods, grant writing, ethics, and business aspects in medicinal chemistry. Level: Graduate

**BMED 628 - Grantsmanship. 1 Credit.**

This course is designed to provide graduate students and postdoctoral fellows with the necessary background, tools and hands on experience to be able to confidently write and submit a research grant. The focus is on preparing a fellowship application although training will be provided for more typical investigator initiated grants. The entire process from conception, preparation, review and revision will be covered. This course will be a requirement for students on training grants. No prerequisites are required. Level: Graduate

**BMED 630 - Pharmacogenetics. 3 Credits.**

Offered alternate years. The genetic basis of differential drug activity. Level: Graduate

**BMED 632 - Drug Development: Pharmacokinetics. 4 Credits.**

Offered fall. Recent developments and emerging concepts in theoretical and experimental pharmacokinetics, pharmacogenomics, and drug disposition. Critical analysis of the current literature. Level: Graduate

**BMED 637 - Topics in Pharmaceutical Sciences and Drug Design. 1 Credit.**

(R-12) Offered autumn and spring. Current topics in the pharmaceutical sciences, including pharmacology, pharmacokinetics, medicinal chemistry, and drug design and development. Level: Graduate

**BMED 641 - Toxicology I-Principles. 3 Credits.**

Offered autumn. Introduction to toxicology. Topics include general principles, risk assessment, organ system toxicology, introduction to carcinogenesis, and genetic toxicology. Level: Graduate

**BMED 642 - Toxicology II-Agents. 3 Credits.**

Offered spring. Prereq., BMED 641. Toxic agents and the diseases caused by those agents. Includes common toxicants in the environment and occupational settings as well as drug induced toxicity. Level: Graduate

**BMED 643 - Cellular & Molecular Toxicology. 3 Credits.**

Offered autumn. Prereq., BMED 641. Cellular and molecular mechanisms of toxicity. Includes apoptosis, regulation of cell cycle, genetic toxicology, and signal transduction pathways in toxicity. Level: Graduate

**BMED 644 - Immunopharmacology and Immunotoxicology. 3 Credits.**

Offered alternate years. The impacts of xenobiotic agents on the immune system. Level: Graduate

**BMED 645 - Respiratory Toxicology. 3 Credits.**

Offered alternate years. Prereq., BMED 641. The lung and associated immune systems and their response to inhaled immunogenic and toxicological agents. Level: Graduate

**BMED 647 - Topics in Toxicology. 1-3 Credits.**

(R-9) Offered autumn or spring. Current topics in toxicology. Level: Graduate

**BMED 657 - Topics in Immunology. 1-3 Credits.**

(R-9) Offered autumn or spring. Current topics in immunology. Level: Graduate

**BMED 690 - Research (PhD). 1-9 Credits.**

(R-50) Offered every term. Directed individual research and study appropriate to the background and objectives of the student. Level: Graduate

**BMED 691 - Special Topics. 1-9 Credits.**

(R-24) Experimental offerings of visiting professors, experimental offerings of new courses, or one-time offerings of current topics. Level: Graduate

**BMED 694 - Seminar. 1-3 Credits.**

(R-6) Offered autumn and spring. A review and discussion of current research. Topics vary. Level: Graduate

**BMED 699 - Dissertation. 1-9 Credits.**

(R-50) Offered every term. Preparation of a doctoral dissertation. Level: Graduate

## Business: Finance (BFIN)

**BFIN 191 - Special Topics. 1-6 Credits.**

(R-6) Offered intermittently. Experimental offerings of visiting professors, experimental offerings of new courses, or one-time offerings of current topics.

**BFIN 192 - Independent Study. 1-3 Credits.**

(R-3) Offered every term. Course material appropriate to the needs and objectives of the individual student.

**BFIN 205S - Personal Finance. 3 Credits.**

Offered autumn and spring at Missoula College; intermittently on Mountain Campus. Concepts, strategies and techniques in analyzing financial situations and investment opportunities from the individual's perspective.

Gen Ed Attributes: Social Sciences

**BFIN 267 - Real Estate Theory and Law. 4 Credits.**

Offered intermittently via UMOOnline. Introduction to the theory and legal issues involved in a real estate transaction.

**BFIN 292 - Independent Study. 1-3 Credits.**

(R-3) Course material appropriate to the needs and objectives of the individual student.

**BFIN 298 - Internship. 1-3 Credits.**

(R-3) Offered every term. Extended classroom experience which provides practical application of classroom learning during placements within the business community. The student must complete a learning agreement with a faculty member, relating the placement opportunity to his or her field of study. A maximum of 6 credits of Internship (198, 298, 398, 498) may count toward graduation.

**BFIN 301 - Analysis of Financial Statements. 3 Credits.**

Offered intermittently. Prereq., ACTG 201, ACTG 202, ECNS 201S, BGEN 222, BMIS 270, and one of STAT 216, SOCI 202, PSYX 222, or FORS 201. Analysis of balance sheets, income and cash flow statements and statements of owners' equity in terms of structure, strategy and performance of the company being analyzed. Emphasis is on the use rather than preparation of financial statements.

**BFIN 322 - Business Finance. 3 Credits.**

Offered every term. Prereq., ACTG 201, ACTG 202, ECNS 201S, BMIS 270, and one of STAT 216, SOCI 202, PSYX 222, or FORS 201. The methodology and practice of business financial decisions.

**BFIN 391 - Special Topics. 1-9 Credits.**

(R-9) Offered intermittently. Experimental offerings of visiting professors, experimental offerings of new courses, or one-time offerings of current topics.

**BFIN 392 - Independent Study. 1-6 Credits.**

(R-6) Offered every term. Course material appropriate to the needs and objectives of the individual student.

**BFIN 394 - Undergraduate Seminar. 1-6 Credits.**

(R-6) Offered intermittently. Topics vary.

**BFIN 410 - \$50,000 Portfolio. 3 Credits.**

Offered autumn. Prereq., BFIN 322. Students manage a diversified investment portfolio for a semester. Students analyze and discuss investment opportunities and implement their decisions. Level: Undergraduate-Graduate

**BFIN 420 - Investments. 3 Credits.**

Offered autumn and spring. Prereq., BFIN 322. Restricted to students with at least junior standing. Principles, practices, and methodology in investment analysis and portfolio management. Level: Undergraduate-Graduate

**BFIN 421 - Real Estate Investment & Analysis. 3 Credits.**

Offered intermittently. Prereq., BFIN 322. Introduction to the principles and practices of real estate. Includes the study of real estate law, financing, valuation, brokerage, and land use. Level: Undergraduate-Graduate

**BFIN 424 - Markets, Institutions & Financial Engineering. 3 Credits.**

Offered autumn and spring. Prereq., ECNS 202S and BFIN 420. Restricted to students with senior standing. Topics covered include operations and analysis of the national and international money and capital markets as they affect financial institutions and usage of derivatives to hedge risks. Level: Undergraduate-Graduate

**BFIN 435 - Corporate Finance. 3 Credits.**

Offered spring. Prereq., BFIN 322. Topics expand on BFIN 322 and include time value of money, risk, business valuation techniques, capital structure, raising capital, mergers and acquisitions, and distribution policies. Course uses Excel and cases to emphasize analysis and decision making. Level: Undergraduate-Graduate

**BFIN 450 - Banking. 3 Credits.**

Offered autumn. Prereq., BFIN 322. The financial management of banking institutions including financial analysis, interest rate risk management, liquidity management, investment and loan portfolio management. Level: Undergraduate-Graduate

**BFIN 473 - Multinational Financial Mgmt. 3 Credits.**

Offered autumn. Prereq., ACTG 201, ACTG 202, ECNS 201S, ECNS 202S, BGEN 222, BMIS 270, BFIN 322, and one of STAT 216, SOCI 202, PSYX 222, or FORS 201. Students are also strongly encouraged to have completed BGEN 360 prior to this course. Topics include financial skills required of corporate executives in international business, exchange rate risk analysis, analysis of global financial systems and assessment of real international investments. Level: Undergraduate-Graduate

**BFIN 491 - Special Topics. 1-9 Credits.**

(R-9) Offered intermittently. Experimental offerings of visiting professors, experimental offerings of new courses, or one-time offerings of current topics. Level: Undergraduate-Graduate

**BFIN 492 - Independent Study. 1-6 Credits.**

(R-6) Offered every term. Course material appropriate to the needs and objectives of the individual student. Level: Undergraduate

**BFIN 494 - Seminar. 1-6 Credits.**

(R-6) Offered intermittently. Topics vary. Level: Undergraduate-Graduate

**BFIN 495 - Practicum. 1-6 Credits.**

(R-6) Offered intermittently. Requires consent of instructor. Organized field experience. Level: Undergraduate

**BFIN 498 - Internship. 1-6 Credits.**

Offered every term. Prereq., ACTG 201, ACTG 202, ECNS 201S, BGEN 222, BMIS 270, and one of STAT 216, SOCI 202, PSYX 222, or FORS 201. Students are placed with private or governmental organizations to receive on-the-job training. Written reports are required. A maximum of 6 credits of Internship (198, 298, 398, 498) may count toward graduation. Level: Undergraduate

**BFIN 651 - Cornerstone of Graduate Finance. 1 Credit.**

Offered fall. Course is designed to prepare M-Acct. and MBA students who desire an improved foundation in corporate finance. Level: Graduate

**BFIN 681 - Financial Management. 2 Credits.**

Offered autumn. Restricted to students in the M.B.A. M-Acct. programs. Advanced theory and analysis in corporate financial management. Level: Graduate

**BFIN 694 - Seminar. 1-15 Credits.**

(R-15) Offered intermittently. Prereq., graduate student in business or consent of business graduate director. Selected topics in finance. Level: Graduate

## Business: General (BGEN)

**BGEN 105S - Introduction to Business. 3 Credits.**

Offered every term. Offered on Mountain Campus and at Missoula College. This course covers the nature of business enterprise, the role of business in society, problems confronting business management, and career opportunities in business. Business majors are advised to register for this course their freshman year.

Gen Ed Attributes: Social Sciences

**BGEN 160S - Issues in Sustainability. 3 Credits.**

Offered autumn and spring. Offered at Missoula College. This literature-intensive course is intended to expose the student to a variety of essays addressing the balance of economic development with the principles of sustainability and social equity. The student is offered an introduction to sustainability concepts, natural systems/cycles, and environmental economics. Natural capitalism and triple bottom line maximization are explored along with the role of corporations and small businesses in sustainable development. A survey of issues surrounding corporate social responsibility and sustainability-driven innovation will be conducted.

Gen Ed Attributes: Social Sciences

**BGEN 191 - Special Topics. 1-6 Credits.**

(R-6) Offered intermittently. Experimental offerings of visiting professors, experimental offerings of new courses, or one-time offerings of current topics.

**BGEN 194 - Seminar. 1-6 Credits.**

(R-12) Offered intermittently. Selected topics in business.

**BGEN 215 - Career Readiness. 3 Credits.**

Offered every semester at Missoula College. Requirements include career fairs, employer panels, and career counseling.

**BGEN 220E - Business Ethics and Social Responsibility. 3 Credits.**

Offered all semesters. This course focuses on moral judgments, responsibilities to society, and their impact on decision making with particular emphasis on business ethics and values. It also addresses organizations and their relationship to the external environment, the law, and various stakeholders.

Gen Ed Attributes: Ethical & Human Values

**BGEN 222 - Business Models and Operations. 3 Credits.**

Offered all semesters. Prereq., or corequisite one of STAT 216, SOCI 202, PSYX 222, or FORS 201. Operations are the activities of a business where products in the form of goods or services are produced. Inputs in the form of material, labor, capital, energy, and ideas are transformed by these activities into products to serve the needs of customers. This course will foster understanding of how operations integrate with finance, marketing, management, accounting, and management information systems to produce goods and services. This end-to-end conception of a business will focus on different models of the business to achieve this productive integration. Students will learn various means of production, methods of integration with other business functions like finance and marketing, and explore in depth specific topics like the management of projects, supply chains, inventory, and quality. Team projects will be assigned where students develop an integrated production system.

**BGEN 235 - Business Law. 3 Credits.**

Offered autumn and spring. Offered at Missoula College. This course provides an overview of law as it applies to business transactions. Topics include the nature and source of law, courts and procedure, contracts, sales, and employment, commercial paper, bailments, property, business organizations, insurance, wills and estate planning, consumer and creditor protection, torts, criminal law, and agency law.

**BGEN 291 - Special Topics. 1-6 Credits.**

(R-6) Offered intermittently. Experimental offerings of visiting professors, experimental offerings of new courses, or one-time offerings of current topics.

**BGEN 292 - Independent Study. 1-6 Credits.**

(R-6) Course material appropriate to the needs and objectives of the individual student.

**BGEN 298 - Internship. 1-6 Credits.**

(R-6) Offered autumn. Offered at Missoula College and on Mountain Campus. Extended classroom experience which provides practical application of classroom learning during placements within the business community. The student must complete a learning agreement with a faculty member, relating the placement opportunity to his or her field of study. A maximum of 6 credits of Internship (198, 298, 398, 498) may count toward graduation.

**BGEN 341 - People, Process and Technology I. 3 Credits.**

Offered all semesters. Prereq., ACTG 201, BMIS 270, and one of STAT 216, SOCI 202, PSYX 222, or FORS 201. The course is designed to prepare College of Business students for the future of work that is characterized by automation, artificial intelligence, technology and innovation, creative disruptions, and the necessary human mindset and behaviors required to be successful in that environment. Specifically, this course focuses on 1) the process of data-driven decision-making 2) the practice of individual human behaviors influencing the data-driven decision-making 3) to understand how business leaders can leverage people, processes, and technology to facilitate organizational change, and 4) to analyze data and communicate results to business leaders 5) the importance of a growth mindset.

**BGEN 342 - People, Process and Technology II. 3 Credits.**

Offered all semesters. Prereq., ACTG 201, ACTG 202, ECNS 201S, BGEN 222, BMIS 270, BGEN 341, and one of STAT 216, SOCI 202, PSYX 222, or FORS 201. This course is the second in the People, Process, and Technology sequence. Our goals are to explore and develop our understanding of how business leaders can foster an agile organization, identify tools and techniques to effectively lead organizational change, and equip ourselves to be confident, ethical technology users and decision makers.

**BGEN 360 - International Business. 3 Credits.**

Offered autumn and spring. Prereq., ACTG 201, ACTG 202, ECNS 201S, BGEN 222, BMIS 270, and one of STAT 216, SOCI 202, PSYX 222, or FORS 201. Analysis of business in diverse parts of the globe. Examines the impact of socio-economic, political, legal, educational, and cultural factors on management.

**BGEN 361 - Principles of Business Law. 3 Credits.**

Offered autumn and spring. Prereq., ACTG 201. Restricted to students with at least sophomore standing. This course examines law as it applies to business transactions. Topics include the nature and sources of law, courts and procedure, contracts, employment, the Uniform Commercial Code, property, environmental law, business organizations, tort liability, insurance, consumer and creditor protection, bankruptcy, criminal law, and agency law.

**BGEN 391 - Special Topics. 1-6 Credits.**

(R-6) Offered intermittently. Experimental offerings of visiting professors, experimental offerings of new courses, or one-time offerings of current topics.

**BGEN 445 - Sustainability Reporting. 3 Credits.**

Offered spring. Restricted to students with junior, senior, or graduate standing. This course provides students with an understanding of sustainability reporting by organizations. Topics covered include sustainability reporting metrics for the public disclosure of the economic, environmental, and social impacts of organizations. Regulation of sustainability reporting, greenwashing, and external assurance of sustainability reports are also covered. Level: Undergraduate-Graduate

**BGEN 490 - Undergraduate Research. 1-6 Credits.**

(R-6) Directed individual research and study appropriate to the background and objectives of the student. Level: Undergraduate.

**BGEN 491 - Special Topics. 1-6 Credits.**

(R-6) Offered intermittently. Experimental offerings of visiting professors, experimental offerings of new courses, or one-time offerings of current topics. Level: Undergraduate-Graduate

**BGEN 492 - Independent Study. 1-6 Credits.**

(R-6) Course material appropriate to the needs and objectives of the individual student. Level: Undergraduate-Graduate

**BGEN 499 - Strategic Management. 3 Credits.**

Offered all semesters. Prereq., COMX 111A, ECNS 202S, BGEN 220E, BFIN 322, BGEN 341, BGEN 342, BGEN 361, and BMKT 325. Restricted to students with senior standing in a College of Business major. Analysis of external and internal firm environment and strategy formulation. Integration of cumulative business knowledge. Case orientation and class discussion. Level: Undergraduate  
Gen Ed Attributes: Writing in the Disciplines

**BGEN 505 - Graduate Fundamentals of Business. 3 Credits.**

Offered fall and spring. Restricted to students in College of Business graduate programs. This course provides an overview of the functional areas of business and how the functional areas connect to professional careers in business analytics. Level: Graduate

**BGEN 509 - Foundations of Accounting and Finance. 2 Credits.**

Restricted to graduate students in the College of Business. This course covers both accounting and finance. The accounting portion introduces key financial statements—income statements, balance sheets, and cash flow statements—along with accruals and revenue recognition principles, equipping students to assess an organization's financial health. The finance portion builds on basic economics, covering financial markets, ratios, capital structure, and budgeting, helping students make informed decisions on investments and financial resource management. The course also explores financial assets, markets, and interest rates, providing a comprehensive foundation in accounting and finance.

**BGEN 516 - Applied Business Statistics. 3 Credits.**

Offered fall and spring. Restricted to graduate students in the College of Business. This course is a three-hour graduate level offering covering introductory topics in statistical methods. Students will learn topics from descriptive analytics, hypothesis testing, data visualization, unsupervised analytical methods, categorical data analysis, and linear and non-linear regression models. The class will be taught in the statistical software package R, using RStudio as the user-friendly interface. Level: Graduate

**BGEN 526 - Graduate Introduction to Business Analytics. 3 Credits.**

Offered fall and spring. Restricted to graduate students in the College of Business. This course introduces the terminology and application of big data and data analytics. Students will complete cases in a variety of disciplines as they become acquainted with some of the software, tools, and techniques of data analytics. Level: Graduate



**BGEN 540 - Management Foundations. 2 Credits.**

Restricted to graduate students in the College of Business. This course introduces basic management principles, covering key concepts such as strategic planning, goal-setting, leadership, motivation, giving feedback, and reward systems. Drawing on insights from both theory and practice, the course explores how and why people think, feel, and act within organizational settings, equipping students with the tools to effectively manage and lead teams.

**BGEN 541 - Data Literacy. 2 Credits.**

Restricted to graduate students in the College of Business. This course explores the fundamental role of data in organizations, emphasizing how accurate, accessible, and well-organized data drives decision-making. Students will gain a broad understanding of data literacy, including management information systems, cloud computing, data security, and reliable access. The course also covers data analytics, focusing on transforming data into actionable information using tools like Excel. Additionally, students will explore the applications and ethical considerations of artificial intelligence (AI) in business.

**BGEN 560 - Marketing & Operations: An Integrated Supply Chain Perspective. 2 Credits.**

Restricted to graduate students in the College of Business. This course provides an integrated introduction to marketing and operations management principles with a focus on how organizations manage their supply chains. Students will explore key concepts in business strategy, operations management, supply chain management, and marketing, gaining a comprehensive understanding of how these areas work together to drive organizational success.

**BGEN 631 - Introduction to SQL. 1 Credit.**

Offered fall and spring. Restricted to graduate students in the College of Business. This course lays a technical foundation for work as an analyst or data scientist, teaching you the fundamentals of Structured Query Language (SQL). SQL is, simply, the way people interface with regular data. Being good at SQL is a pre-requisite for getting an analytics job and succeeding in a data-intensive job. Level: Graduate

**BGEN 632 - Graduate Introduction to Python. 2 Credits.**

Offered fall and spring. Restricted to graduate students in the College of Business. This is a graduate course covering Python fundamentals, including how to do basic programming for manipulating, analyzing, and visualizing a variety of datasets. In addition, the course explores modern workflows and tools for version control of code, leveraging open-source libraries, and using tools like Jupyter notebooks on local machines. The course assumes students have no prior programming experience and will start with fundamentals of the Python language and coding principles. Level: Graduate

**BGEN 694 - Seminar. 1-6 Credits.**

(R-12) Offered intermittently. Restricted to graduate students in the College of Business. Selected topics in business. Level: Graduate

## Business: Management (BMGT)

**BMGT 101S - Introduction to Entertainment Management. 3 Credits.**

Offered autumn and intermittently spring. Open to non-business majors.

This course is designed to provide basic distinctions and concepts necessary for understanding various business aspects that underpin the business of entertainment as well as most other businesses regardless of context.

Gen Ed Attributes: Social Sciences

**BMGT 191 - Special Topics. 1-6 Credits.**

(R-6) Offered intermittently. Experimental offerings of visiting professors, experimental offerings of new courses, or one-time offerings of current topics.

**BMGT 192 - Independent Study. 1-3 Credits.**

(R-3) Offered every term. Course material appropriate to the needs and objectives of the individual student.

**BMGT 235 - Management. 3 Credits.**

Offered autumn and spring. Offered at Missoula College. Management theory, research, and the practice of management. Topics covered include leadership styles and techniques, effective communication approaches, time management, decision making, delegation, and the basic functions of supervisory skills.

**BMGT 242 - Front Line Supervision. 3 Credits.**

Offered spring. Offered at Missoula College. Introduces basic employee development with emphasis on the responsibilities of a newly-appointed supervisor. Emphasizes organizational structure, motivation, delegation of authority, the hiring process, employee development, employee performance, evaluations, and dealing with employee conflict.

**BMGT 245 - Customer Service Management. 3 Credits.**

Offered autumn and spring. Offered at Missoula College. Designed to prepare employees and managers to meet customers' expectations. Review of customer service philosophy and techniques. Services marketing, quality issues, service design and delivery, customer interaction systems, complaint handling and service recovery, customer relationships, loyalty management, and operations are addressed.

**BMGT 275 - Venue Management. 3 Credits.**

Offered Autumn. Open to non-business majors. This course is designed to provide some of the basic tools for better understanding the processes involved in the conceptualization, development and production of live-events and successfully managing various types of venues.

**BMGT 291 - Special Topics. 1-6 Credits.**

(R-6) Offered intermittently. Experimental offerings of visiting professors, experimental offerings of new courses, or one-time offerings of current topics.

**BMGT 292 - Independent Study. 1-3 Credits.**

(R-3) Course material appropriate to the needs and objectives of the individual student.

**BMGT 298 - Management Internship. 1-6 Credits.**

(R-6) Offered autumn. Offered at Missoula College and on Mountain Campus. Extended classroom experience which provides practical application of classroom learning during placements within the business community. The student must complete a learning agreement with a faculty member, relating the placement opportunity to his or her field of study. A maximum of 6 credits of Internship (198, 298, 398, 498) may count toward graduation. Offered CR/NCR only.

**BMGT 299 - Capstone: Entrepreneurship. 3 Credits.**

Offered spring. Offered at Missoula College. An overview of the skill areas and business principles needed to start and operate a small business. Includes developing a business plan, identifying sources of capital formation, managing growth, and marketing issues related to new ventures.



**BMGT 301 - Entertainment & Sport Facility Management. 3 Credits.**

Offered autumn. Prereq., BGEN 105S. This course provides a business foundation for facility management. Course topics include facility ownership and management, business and financial management, event booking, marketing and sales, ticketing and access management, ancillary revenue sources, back-of-house operations, event management, and safety and security.

**BMGT 322 - Operations Management. 3 Credits.**

Prereq., ACTG 201, ACTG 202, ECNS 201S, BGEN 222, BMIS 270, and one of STAT 216, SOCI 202, PSYX 222, or FORS 201. A survey of the processes that public and private organizations use to produce goods and services. Includes management science topics.

**BMGT 329 - Human Resource Management. 3 Credits.**

Offered autumn. Restricted to students with junior standing. Open to non-business majors. This course aims to unravel the complexities of human resources within an organization and to help students understand the environment within which HRM occurs. Human resource topics of selection, training, assessment, and compensation tools and strategies will be addressed heavily in this course.

**BMGT 340 - Management & Organization Behavior. 3 Credits.**

Prereq., ACTG 201, ACTG 202, ECNS 201S, BGEN 222, BMIS 270, and one of STAT 216, SOCI 202, PSYX 222, or FORS 201. An intensive examination of the fundamentals of management and organization supported by the application of behavioral science principles to the management of people in organizations.

**BMGT 391 - Special Topics. 1-6 Credits.**

(R-6) Offered intermittently. Experimental offerings of visiting professors, experimental offerings of new courses, or one-time offerings of current topics.

**BMGT 392 - Independent Study. 1-6 Credits.**

(R-6) Offered every term. Course material appropriate to the needs and objectives of the individual student.

**BMGT 394 - Seminar/Workshop. 1-3 Credits.**

(R-3) Offered intermittently. Topic vary.

**BMGT 398 - Internship. 1-6 Credits.**

Offered every term. Prereq., ACTG 201, ACTG 202, ECNS 201S, BGEN 222, BMIS 270, and one of STAT 216, SOCI 202, PSYX 222, or FORS 201. Extended classroom experience providing practical application of classroom learning during placements off campus. Prior approval must be obtained from the faculty supervisor. A maximum of 6 credits of Internship (198, 298, 398, 498) may count toward graduation.

**BMGT 401 - Entertainment and Sports Event Management. 3 Credits.**

Offered autumn. Prereq., ACTG 202, BGEN 105S, and BMKT 325. Restricted to students with at least junior standing. Open to non-business majors. Students are introduced to skills that are necessary for managing sports & entertainment events. Planning, marketing, sponsorship, budgeting, management, risk management, impacts, and evaluation of events are discussed. Students will participate in several live events.

**BMGT 402 - Principles of Entertainment & Sport Business. 3 Credits.**

Offered autumn and spring. Prereq., ACTG 202, BGEN 105S, and BMKT 325. This course introduces students to the fundamental aspects of the entertainment & sports industries in terms of functional areas of business, industry segments, and career readiness. Level: Undergraduate-Graduate

**BMGT 403 - Advanced Topics in Entertainment & Sport Business. 3 Credits.**

Offered spring. Prereq., BMGT 401 and BMGT 402. Students will participate in case studies and experiential learning projects with sport and entertainment industry partners on advanced entertainment topics. Topics include: artificial intelligence in sport & entertainment business, sustainability, labor relations, branding, agency relations and responsibilities, ticketing, and contracts. Level: Undergraduate-Graduate

**BMGT 410 - Sustainable Business Practices. 3 Credits.**

Offered autumn. Restricted to students with at least junior standing. This course explores how changing perceptions around environmental and social issues influence current business practices. Through this exploration, we discuss the impact these influences have on business and how adept firms can gain competitive advantage through embracing and integrating them into their core strategies. Level: Undergraduate-Graduate

**BMGT 420 - Leadership and Motivation. 3 Credits.**

Offered autumn and spring. Prereq., BGEN 341. Study of fundamental concepts, theories, and models of leadership and motivation. Selected topics include: trait and behavioral theories of leadership, charismatic and transformational leadership, power and influence, emotions and justice perceptions in motivation, expectancy, and equity theories. Level: Undergraduate-Graduate

**BMGT 444 - Leading Teams & Conflict Management. 3 Credits.**

Offered autumn and spring. Prereq., BMGT 341. This course teaches students essential skills in written, verbal, non-verbal, visual, and persuasive communication, building and equipping effective teams, providing coaching and feedback, relationship building and conflict management, mediation, and negotiation. There is an emphasis on skills practice through role play, simulations, and real life applications. Level: Undergraduate-Graduate

**BMGT 448 - Entrepreneurship. 3 Credits.**

Offered autumn and spring. Prereq., ACTG 201, ACTG 202, ECNS 201S, BGEN 222, BMIS 270, and one of STAT 216, SOCI 202, PSYX 222, or FORS 201. This course focuses on starting and managing a growing business. Topics include recognizing business opportunities, setting strategy for the firm, raising capital, marketing new products, and organizing the managerial team. Students develop a business model canvas and/or write a business plan for themselves or for a local entrepreneur. Level: Undergraduate

**BMGT 458 - Advanced Entrepreneurship. 1-2 Credits.**

(R-3) Offered spring. Prereq., or corequisite BMGT 448. Focus on managing and marketing a growing business, legal and technology issues for entrepreneurs, and financing new ventures. Students refine an existing or write a new business plan and participate in a business plan competition or write case analyses. UM instructors supervise course content delivered by local and regional experts in entrepreneurship. Four separate one credit weekend seminars are offered. Level: Undergraduate

**BMGT 467 - Global Operations and Supply Chain Management. 3 Credits.**

Offered spring. Prereq., BGEN 222 and BMKT 325. The course introduces students to the challenges and opportunities companies face and how they manage the risk associated with the global supply chain. It provides an overview of global supply chain operations management as a field and describes the strategic role it has in today's intensely competitive business environment. Level: Undergraduate

**BMGT 480 - Cross-Cultural Management. 3 Credits.**

Offered autumn and spring. Prereq., ACTG 201, ACTG 202, ECNS 201S, BGEN 222, BMIS 270, and one of STAT 216, SOCI 202, PSYX 222, or FORS 201. Study of issues related to cultural diversity within the workforce and the problems inherent in the management of a firm's activities on an international scale. Level: Undergraduate-Graduate

**BMGT 491 - Special Topics. 1-6 Credits.**

(R-6) Offered intermittently. Experimental offerings of visiting professors, experimental offerings of new courses, or one-time offerings of current topics. Level: Undergraduate-Graduate

**BMGT 492 - Independent Study. 1-6 Credits.**

(R-6) Offered every term. Course material appropriate to the needs and objectives of the individual student. Level: Undergraduate

**BMGT 493 - International Experience. 1-6 Credits.**

(R-6) Offered intermittently. Prereq., ACTG 201, ACTG 202, ECNS 201S, BGEN 222, BMIS 270, and one of STAT 216, SOCI 202, PSYX 222, or FORS 201. Field-based, experiential courses that focus on international business topics, incl. the culture and business environment of important U.S. trading partners, such as China, Germany, or Italy. Level: Undergraduate

**BMGT 494 - Seminar/Workshop. 1-6 Credits.**

(R-6) Offered intermittently. Topic vary. Level: Undergraduate-Graduate

**BMGT 495 - Practicum. 1-6 Credits.**

(R-6) Offered intermittently. Organized field experience. Level: Undergraduate-Graduate

**BMGT 498 - Internship. 1-6 Credits.**

Offered every term. Prereq., ACTG 201, ACTG 202, ECNS 201S, BGEN 222, BMIS 270, and one of STAT 216, SOCI 202, PSYX 222, or FORS 201. Extended classroom experience providing practical application of classroom learning during placements off campus. Prior approval must be obtained from the faculty supervisor. A maximum of 6 credits of Internship (198, 298, 398, 498) may count toward graduation. Level: Undergraduate

**BMGT 567 - Global Operations and Supply Chain Management. 3 Credits.**

Restricted to student in College of Business graduate programs. This course provides an understanding of how global supply chains (GSCs) impact national economies, businesses, and consumers. It covers the flow of materials and information across firms worldwide, from raw materials to end customers, integrating logistics, information systems, marketing, and operations management. Topics range from inventory management and sourcing decisions to the latest trends in GSCs driven by emerging technologies and shifting geopolitics. The course includes lectures, case studies, discussions, and guest speakers, with an emphasis on active participation and real-world applications. Co-convenes with BMGT 467. Level: Graduate

**BMGT 591 - Special Topics. 1-9 Credits.**

(R-24) Offered intermittently. Experimental offerings of visiting professors, experimental offerings of new courses, or one-time offerings of current topics. Level: Graduate

**BMGT 604 - Competitive Strategy. 1 Credit.**

Offered autumn. Restricted to students in the Master of Business Administration and Master of Accountancy programs. An introduction to strategic management with a focus on the analysis of the firm and its environment as the basis for strategic decision making. Level: Graduate

**BMGT 640 - Organizational Behavior. 2 Credits.**

Offered autumn. Restricted to students in the Master of Business Administration or Master of Accountancy programs. Professionally oriented strategic overview of intrapersonal, interpersonal, and leadership skills for employees, management, and organizational designers. Topics include diversity, communication, motivation, groups/teams, culture and structure. Level: Graduate

**BMGT 650 - Business Ethics. 1 Credit.**

Restricted to students in the Master of Business Administration program. This course is designed to acquaint students with the ethical implications of business decisions, policy, strategy, and operations. Students will learn how to (1) develop a system of ethics that will form the foundation for future ethical practices in business; (2) analyze specific contemporary issues in business for their ethical implications and content; and (3) challenge conventional thinking about ethics by introducing broad-based ethical principles and systems to enlighten and inform ethical thinking. Level: Graduate

**BMGT 665 - Strategic Management Seminar. 1-12 Credits.**

Offered spring. Prereq., ACTG 605, BFIN 681, BMIS 674, BMGT 604, and BMGT 640. Coreq., MBA 603. Restricted to students in the Master of Business Administration or Master of Accountancy programs. Analysis of the firm within its industry and the structure of the industry; competitive positioning and competitor analysis; decision-making under conditions of uncertainty; developing a competitive advantage in international markets. Level: Graduate

**BMGT 685 - International Business. 2 Credits.**

Offered spring. Restricted to students in the Master of Business Administration or Master of Accountancy programs. Review and analysis of international trade theories and institutions, the role of the multinational enterprise (MNE) in global trade and how the MNEs operate in a global setting. Level: Graduate

**BMGT 692 - Independent Study. 1-9 Credits.**

(R-9) Course material appropriate to the needs and objectives of the individual student. Level: Graduate

**BMGT 693 - International Studies. 1-6 Credits.**

Restricted to students in College of Business graduate programs. Field-based, experiential courses that focus on international business topics, including the culture and business environment of important U.S. trading partners, such as Italy and Romania.

## Business: Management Information Systems (BMIS)

**BMIS 191 - Special Topics. 1-6 Credits.**

(R-6) Offered intermittently. Experimental offerings of visiting professors, experimental offerings of new courses, or one-time offerings of current topics.

**BMIS 192 - Independent Study. 1-3 Credits.**

(R-3) Course material appropriate to the needs and objectives of the individual student.

**BMIS 270 - MIS Foundations for Business. 3 Credits.**

Offered every term. Prereq., WRIT 101. Introduces the development, use, and management of computer-based information systems.

**BMIS 291 - Special Topics. 1-6 Credits.**

(R-6) Experimental offerings of visiting professors, experimental offerings of new courses, or one-time offerings of current topics.

**BMIS 292 - Independent Study. 1-3 Credits.**

(R-3) Course material appropriate to the needs and objectives of the individual student.

**BMIS 298 - Internship. 1-3 Credits.**

(R-3) Offered every term. Extended classroom experience which provides practical application of classroom learning during placements within the business community. The student must complete a learning agreement with a faculty member, relating the placement opportunity to their field of study. A maximum of 6 credits of Internship (198, 298, 398, 498) may count toward graduation.

**BMIS 326 - Introduction to Data Analytics. 3 Credits.**

Offered autumn and spring. Prereq., STAT 216 or SOCI 202 or PSYX 222 or FORS 201. This course introduces the terminology and application of big data and data analytics. Students will complete cases in a variety of disciplines as they become acquainted with some of the software, tools, and techniques of data analytics.

**BMIS 364 - Linux Network Security. 3 Credits.**

Offered autumn. Prereq., ITS 150, ITS 212 & ITS 222. This course requires students to have a basic knowledge of computers and networks that can come from courses offered in the Computer Science Department, the Management Information Systems Department, Missoula College, or through work experience. Business & MIS students should have completed the lower core. Knowledge of Linux in general is indispensable for students aspiring for careers in cyber security, information technology, and related fields. In today's business landscape, where technology underpins operations, secure and efficient network infrastructure is paramount. Linux, being widely used in enterprise environments and renowned for its reliability and flexibility serves as a robust platform for network management and security in enterprise environments. Mastery of Linux network administration not only enhances students' technical capabilities but also increases their employability and effectiveness in addressing the evolving challenges of cybersecurity and IT infrastructure management.

**BMIS 365 - Business App Development. 3 Credits.**

Offered autumn and spring. Prereq., ACTG 201, BGEN 222, BMIS 270, and one of STAT 216, SOCI 202, PSYX 222, or FORS 201. Provides an understanding of algorithm development, programming, computer concepts, and the design and application of data and file structures.

**BMIS 372 - Information Infrastructures. 3 Credits.**

Offered autumn. Prereq., ACTG 201, BGEN 222, BMIS 270, and one of STAT 216, SOCI 202, PSYX 222, or FORS 201. Explores the evolution of technological infrastructures with an emphasis on strategic implications. Students develop an enterprise infrastructure and then examine innovations that allow for the design and development of products and services in a global business environment.

**BMIS 373 - Business System Analysis & Design. 3 Credits.**

Offered autumn and spring. Prereq., ACTG 201, BGEN 222, BMIS 270, and one of STAT 216, SOCI 202, PSYX 222, or FORS 201. Provides an understanding of the systems development and modification process, including requirements determination, logical design, physical design, test planning, implementation planning, and performance evaluation.

**BMIS 374 - Ethical Hacking. 3 Credits.**

Prereq., BMIS 364 or BMIS 471. This course is designed to prepare students for the mindset and skillset of an ethical hacker. Students will practice skills of scoping, executing, reporting on vulnerability assessments, recommending mitigation strategies, cleaning up the offense traces, and restore systems back to the original state. Students will be familiar with a variety of commonly used hacking tools with lots of hands-on labs and assignments/projects to learn how to effectively secure an organization against security attacks.

**BMIS 391 - Special Topics. 1-9 Credits.**

(R-9) Offered intermittently. Experimental offerings of visiting professors, experimental offerings of new courses, or one-time offerings of current topics.

**BMIS 392 - Independent Study. 1-6 Credits.**

(R-6) Offered every term. Course material appropriate to the needs and objectives of the individual student.

**BMIS 394 - Undergraduate Seminar. 1-3 Credits.**

(R-3) Offered intermittently. Topics vary.

**BMIS 465 - Introduction to Real-time Data Analytics. 3 Credits.**

Offered spring. Prereq., STAT 216 and BMIS 326. Focuses on analyzing big data in motion using commercially available software. Level: Undergraduate-Graduate

**BMIS 471 - Fundamentals of Network & Security Management. 3 Credits.**

Offered autumn. Restricted to students with junior standing. Current topics will focus on the impact of network technologies and infrastructures on facilitating and supporting business organizations. Students learn about design, installation, and configuration of networks as well as implementing security, networking protocols, and virtualization technologies. Includes a hands-on lab to demonstrate the concepts. Co-convenes with BMIS 501. Level: Undergraduate

**BMIS 472 - Advanced Network & Security Management. 3 Credits.**

Offered spring. Prereq., BMIS 471. Restricted to students with at least junior standing. Focuses on network security and how it aligns with organizational strategy, directory services for access to organizational information, and cybersecurity management. Includes a hands-on lab to demonstrate the concepts. Level: Undergraduate-Graduate

**BMIS 474 - Cybersecurity Operation Center. 3 Credits.**

Offered spring. Prereq., BMIS 364 and BMIS 374. The purpose of this course is to introduce skills required to operate in a security operations center (SOC). Cyber operations specialists aid organizations to prevent, mitigate, identify, protect against, respond to, and analyze network anomalies and intrusions through transformative processes. This requires the development of two skillsets: 1) technical abilities related to the cyber infrastructure, and 2) interpersonal communication abilities within organizations through a writing component referred to as Writing in the Disciplines.

Gen Ed Attributes: Writing in the Disciplines

**BMIS 476 - Integrated Project Management for IS. 3 Credits.**

Offered autumn and spring. Prereq., BMIS 326, BMIS 365, and BMIS 373. Emphasis on project planning, team selection models, and project management techniques. A software package is used to demonstrate how projects are planned, managed, monitored, and controlled. MIS majors should enroll in this course. Level: Undergraduate-Graduate

**BMIS 478 - E Commerce: a Managerial Perspective. 3 Credits.**

Offered intermittently. Prereq., ACTG 201, ACTG 202, ECNS 201S, BGEN 222, BMIS 270, and one of STAT 216, SOCI 202, PSYX 222, or FORS 201. This course focuses on the capabilities of the Internet to support and enable commerce. Provides a managerial perspective on topics including effective website design, emerging technologies, business models, infrastructure architectures, and security. Level: Undergraduate-Graduate

**BMIS 479 - Introduction to Consulting. 3 Credits.**

Offered autumn. Prereq., ACTG 201, BGEN 222, BMIS 270, and one of STAT 216, SOCI 202, PSYX 222, or FORS 201. This course covers the managerial approach to consulting engagements, including scoping and writing proposals, presenting to clients, documenting consulting work, and interpersonal skills necessary for successful consulting. This course does not require a technical background. Level: Undergraduate

**BMIS 482 - Big Data Project. 3 Credits.**

Offered autumn and spring. Prereq., BMIS 326. Students will work in cross-disciplinary teams to complete big data projects from different disciplines. There will be emphasis on agile project management. MIS majors are excluded from this course and should take BMIS 476. Level: Undergraduate-Graduate

**BMIS 491 - Special Topics. 1-9 Credits.**

(R-9) Offered autumn and spring. Experimental offerings of visiting professors, experimental offerings of new courses, or one-time offerings of current topics. Level: Undergraduate-Graduate

**BMIS 492 - Independent Study. 1-6 Credits.**

(R-6) Offered every term. Course material appropriate to the needs and objectives of the individual student. Level: Undergraduate

**BMIS 494 - Seminar. 1-6 Credits.**

(R-6) Offered intermittently. Topics vary. Level: Undergraduate-Graduate

**BMIS 495 - Practicum: Information Systems. 3 Credits.**

Offered every term. Prereq., ACTG 201, BGEN 222, BMIS 270, and one of STAT 216, SOCI 202, PSYX 222, or FORS 201. Practical hands-on experience with area organizations. Provides application of classroom learning. Level: Undergraduate

**BMIS 498 - Internship. 1-6 Credits.**

(R-6) Offered every term. Prereq., ACTG 201, BGEN 222, BMIS 270, and one of STAT 216, SOCI 202, PSYX 222, or FORS 201. Extended classroom experience providing practical application of classroom learning during placements off campus. Prior approval must be obtained from the faculty supervisor. A maximum of 6 credits of Internship (198, 298, 398, 498) may count toward graduation. Level: Undergraduate

**BMIS 501 - Fundamentals of Network & Security Management. 3 Credits.**

Restricted to graduate students in the College of Business. Current topics will focus on the impact of network technologies and infrastructures on facilitating and supporting business organizations. Students learn about design, installation, and configuration of networks as well as implementing security, networking protocols, and virtualization technologies. Includes a hands-on lab to demonstrate the concepts. Co-convenes with BMIS 471.

**BMIS 502 - Advanced Network & Security Management. 3 Credits.**

Prereq., BMIS 471. Restricted to students in College of Business graduate programs. Focuses on network security and how it aligns with organizational strategy, directory services for access to organizational information, and cybersecurity management. Includes a hands-on lab to demonstrate the concepts.

**BMIS 575 - Fundamentals of Consulting. 3 Credits.**

Offered spring. Restricted to students in College of Business graduate programs. The technical, interpersonal, and consulting skills necessary to effectively work with clients. Focuses on management; does not require a technical background. Level: Graduate

**BMIS 591 - Special Topics. 1-3 Credits.**

(R-3) Offered intermittently. Experimental offerings of visiting professors, experimental offerings of new courses, or one-time offerings of current topics. Level: Graduate

**BMIS 601 - Business Intelligence. 3 Credits.**

Prereq., BMKT 325 and STAT 216; or BMKT 560 and BMIS 326. Restricted to students in College of Business graduate programs. This course provides graduate students with the foundational knowledge necessary to transform big data into useful business intelligence. Students get the skills, tools, and techniques required to collect, synthesize, and distribute information to support intelligent decision-making at the managerial level. Level: Graduate

**BMIS 625 - Mining of Text & Unstructured Data. 2 Credits.**

Prereq., BGEN 526, BGEN 516, and BGEN 505. An integration of Data Science theory and the actual practice of searching, sorting, relating, and deriving results from textual data. Students will be exposed to machine learning, natural language processing, as well as other computer assisted data mining techniques and then gain hands-on proficiency in the practice of data science using the software from data mining and document analysis vendors. Level: Graduate

**BMIS 650 - Quantitative Analysis. 2 Credits.**

Offered spring. Restricted to students in the Master of Business Administration or Master of Accountancy programs. Quantitative methods supporting managerial decision-making. Theory and logic underlying such methods as linear programming and simulation. Solution of complex problems and practice of interpersonal skills in team projects. Level: Graduate

**BMIS 674 - Management of Information Systems. 2 Credits.**

Offered autumn. Restricted to students in the Master of Business Administration or Master of Accountancy programs. The tactical/operational responsibilities and roles of the CIO. Includes governance issues, supporting the learning organization, managing the technologies, and managing the development of systems. Focuses on management; does not require a technical background. Level: Graduate

**BMIS 692 - Independent Study. 1-9 Credits.**

(R-9) Course material appropriate to the needs and objectives of the individual student. Level: Graduate

**BMIS 694 - Seminar. 1-6 Credits.**

(R-12) Offered intermittently. Topic vary. Level: Graduate

## Business: Marketing (BMKT)

**BMKT 109 - Visual Merchandising & Display. 3 Credits.**

Offered spring. Offered at Missoula College. Introduction to various techniques used by retailers in the merchandising and displaying of goods. Analysis of different approaches and methods for effectiveness in actual retail settings. Includes display principles of balance, color, and focal point statements.



**BMKT 112 - Applied Sales. 3 Credits.**

Offered autumn. Offered at Missoula College. Course provides students with basic sales skills through the use of experiential training, role-playing and evaluating presentations. Includes the steps in prospecting, opening, presenting, demonstrating, handling objections, and closing the sale. Students will gain experience through role-playing activities, observations, and written presentations.

**BMKT 191 - Special Topics. 1-6 Credits.**

(R-6) Offered intermittently. Experimental offerings of visiting professors, experimental offerings of new courses, or one-time offerings of current topics.

**BMKT 192 - Independent Study. 1-3 Credits.**

(R-3) Course material appropriate to the needs and objectives of the individual student.

**BMKT 225 - Marketing. 3 Credits.**

Offered autumn. Offered at Missoula College. An overview of marketing activities including the consumer buying decision process, distribution channels, the planning process, and new marketing trends. Students learn how to introduce a new product into the market place, target markets, and promote products through advertising and package design.

**BMKT 240 - Advertising. 3 Credits.**

Offered spring. Offered at Missoula College. Exposure to the history and fundamentals of advertising; in-depth exploration of advertising media, budget plans, ad campaign designs, and in-house promotion designs; and the production of actual radio, television, and print advertising.

**BMKT 265 - Social Media Strategy & Management. 3 Credits.**

Offered spring. Offered at Missoula College. Prereq., CAPP 120 or CSCI 105. Students will analyze and select appropriate communication channels and technologies according to relevant publics, evaluate suitability of media content and use best communication practices to promote a positive organizational image, and apply business relationship marketing techniques to enhance social communities. Students will monitor issues and analyze trends across various social media platforms and manage media through professional, accessible, and ethical practices expected in our global society.

**BMKT 291 - Special Topics. 1-9 Credits.**

(R-9) Offered intermittently. Experimental offerings of visiting professors, experimental offerings of new courses, or one-time offerings of current topics.

**BMKT 292 - Independent Study. 1-3 Credits.**

(R-3) Course material appropriate to the needs and objectives of the individual student.

**BMKT 298 - Internship. 1-3 Credits.**

(R-3) Offered every term. Extended classroom experience which provides practical application of classroom learning during placements within the business community. The student must complete a learning agreement with a faculty member, relating the placement opportunity to his or her field of study. A maximum of 6 credits of Internship (198, 298, 398, 498) may count toward graduation.

**BMKT 325 - Principles of Marketing. 3 Credits.**

Offered every semester. Prereq., ACTG 201, ACTG 202, ECNS 201S, BMIS 270, and one of STAT 216, SOCI 202, PSYX 222, or FORS 201. This course covers the marketing environment and product, price, distribution, and promotion strategies, including government regulation and marketing ethics.

**BMKT 337 - Consumer Behavior. 3 Credits.**

Offered spring. Prereq., BMKT 325. Previous completion of PSYX 100S and PSYX 230 is recommended. This course covers the behavioral analysis of consumer decision making and of the factors influencing consumer decisions, i.e., those decisions directly involved with the obtaining of economic goods and services.

**BMKT 342 - Marketing Research. 3 Credits.**

Offered autumn. Prereq., BMKT 325. This course covers data acquisition and analysis for improved decision making in marketing. Topics include problem definition, secondary data, primary data via observation, interrogation and experimentation, data analysis, and written and oral reports. May include a field project.

**BMKT 343 - Integrated Marketing Communication. 3 Credits.**

Prereq., BMKT 325. This is an integrated course in promotion strategy. Topics include advertising message design, media selection, promotions, public relations, personal selling, and other selected topics.

**BMKT 391 - Special Topics. 1-9 Credits.**

(R-9) Offered intermittently. Experimental offerings of visiting professors, experimental offerings of new courses, or one-time offerings of current topics.

**BMKT 392 - Independent Study. 1-6 Credits.**

(R-6) Offered every term. Course material appropriate to the needs and objectives of the individual student.

**BMKT 412 - Nonprofit Marketing. 3 Credits.**

Prereq., BMKT 325. This course integrates the core concepts of marketing into philanthropic and other nonprofit organizations, including strategies for large-scale enterprises such as unions, educational and religious institutions, and small organizations that provide local support such as cultural services, human, and environmental services. Students work with nonprofit organizations creating marketing communications plans in an experiential learning environment. Level: Undergraduate-Graduate

**BMKT 413 - Sports Marketing. 3 Credits.**

Offered spring. Restricted to students with at least junior standing. This course examines the marketing of sports products and non-sports products using sports as a platform. Topics include the use of traditional marketing strategies as well as the use of sponsorship strategies, including endorsements, venue naming rights, and licensing. Level: Undergraduate-Graduate

**BMKT 420 - Integrated Online Marketing. 3 Credits.**

Offered autumn and spring. Prereq., BMKT 325. This course is an exploration and application of marketing communications principles to the internet environment. Students develop individual WordPress websites/blogs, learn about online marketing techniques, and complete online marketing and social media projects. Level: Undergraduate-Graduate

**BMKT 440 - Marketing Analytics. 3 Credits.**

Offered spring. Prereq., BMKT 325. The purpose of this course is to learn about the importance and value of using new measurement tools in marketing and using related research and data to create compelling content. Students in this course are also challenged to bring actual ideas to life. Level: Undergraduate-Graduate



**BMKT 451 - Logistics and Transportation. 3 Credits.**

This course provides a practical managerial perspective on the main logistics areas, including transportation, distribution, inventory and order management, key operational and financial performance indicators, sustainable logistics practices, and an introduction to logistics technology. Students engage with logistics firms in practical applications and discuss current events. Co-convenes with BMKT 550. Level: Undergraduate

**BMKT 460 - Marketing Hi-Tech Production and Innovation. 3 Credits.**

Offered intermittently. Prereq., BMKT 325. This course explores the concepts and practices related to marketing in fast-paced environment; draws from a range and diversity of industries and contexts including the Internet. Level: Undergraduate-Graduate

**BMKT 482 - Telling Stories with Data. 3 Credits.**

Restricted to students with at least junior standing. This course explores how we turn data into stories that can be understood by a nontechnical audience. Students will work with both raw and summarized data from several industries. Co-convenes with BMKT 582. Level: Undergraduate

**BMKT 483 - Digital Media Execution. 3 Credits.**

Offered spring. Prereq., BMKT 325. This course will provide students with a solid understanding of the digital marketing landscape and can help them differentiate themselves as digital marketers. Course will cover online marketing channels such as display ads, search engine marketing, Over-the-top (OTT), Native, media services, email marketing, video advertising, paid social media advertising, and mobile ads. Level: Undergraduate-Graduate

**BMKT 490 - Undergraduate Research. 3 Credits.**

(R-6) Offered intermittently. Prereq., BMKT 325. An experiential course in the strategy, research, and execution of an integrated marketing communications plan. Students' work culminates in the American Association of Advertising's National Student Advertising Competition. Level: Undergraduate

**BMKT 491 - Special Topics. 1-6 Credits.**

(R-9) Offered intermittently. Experimental offerings of visiting professors, experimental offerings of new courses, or one-time offerings of current topics. Level: Undergraduate-Graduate

**BMKT 492 - Independent Study. 1-6 Credits.**

(R-6) Offered every term. Course material appropriate to the needs and objectives of the individual student. Level: Undergraduate

**BMKT 493 - International Experience. 1-6 Credits.**

(R-6) Offered intermittently. Prereq., ACTG 201, ACTG 202, ECNS 201S, BGEN 222, BMIS 270, and one of STAT 216, SOCI 202, PSYX 222, or FORS 201. Field-based, experiential courses that focus on international business topics, incl. the culture and business environment of important U.S. trading partners, such as China, Germany, or Italy. Level: Undergraduate

**BMKT 494 - Seminar. 1-6 Credits.**

(R-6) Offered intermittently. Topics vary. Level: Undergraduate-Graduate

**BMKT 498 - Internship. 1-6 Credits.**

Offered every term. Prereq., ACTG 201, ACTG 202, ECNS 201S, BGEN 222, BMIS 270, and one of STAT 216, SOCI 202, PSYX 222, or FORS 201. Extended classroom experience which provides practical application of classroom learning during placements off campus. Prior approval must be obtained from the faculty supervisor. A maximum of 6 credits of Internship (198, 298, 398, 498) may count toward graduation. Level: Undergraduate

**BMKT 550 - Logistics and Transportation. 3 Credits.**

Restricted to graduate students in the College of Business. This course provides a practical managerial perspective on the main logistics areas, including transportation, distribution, inventory and order management, key operational and financial performance indicators, sustainable logistics practices, and an introduction to logistics technology. Students engage with logistics firms in practical applications and discuss current events. Co-convenes with BMKT 451. Level: Graduate

**BMKT 582 - Telling Stories with Data. 3 Credits.**

Restricted to graduate students in the College of Business. This course explores how we turn data into stories that can be understood by a non-technical audience. Students will work with both raw and summarized data from several industries. Co-convenes with BMKT 482.

**BMKT 591 - Special Topics. 1-6 Credits.**

(R-6) Offered intermittently. Experimental offerings of visiting professors, experimental offerings of new courses, or one-time offerings of current topics.

**BMKT 642 - Advanced Marketing Research. 3 Credits.**

Prereq., BMKT 325 and STAT 216; or BMKT 560 and BMIS 326. Restricted to students in College of Business graduate programs. The purpose of the course is to learn how to provide information for better business decision making. Students study the different aspects of marketing research as it relates to business problems and develop a mindset that continually relies on information-based decisions. Level: Graduate

**BMKT 660 - Marketing Management. 2 Credits.**

Offered spring. Restricted to students in the Master of Business Administration or Master of Accountancy programs. Marketing decisions faced by managers in a variety of business settings including large corporations, small businesses and not-for-profit organizations. Level: Graduate

**BMKT 670 - Applied Data Analytics. 3 Credits.**

Prereq., BMKT 325 and STAT 216; or BMKT 560 and BMIS 326. This course applies statistical skills and technical expertise to real-world big-data business applications. Students will work with the tools of data science and hone their ability to answer business questions through the analysis of data. Level: Graduate

**BMKT 673 - Advanced Applied Modeling. 3 Credits.**

Prereq., BGEN 516. This course focuses on applied statistics, improving students' statistical fluency and modeling. We cover resampling statistics to solidify our basic statistical understanding, improve our programming, and learn this vital technique to understanding uncertainty. We cover linear regression modeling extensively in the next section of the course. The final half of the course covers applied predictive and explanatory modeling using cutting-edge tools from our statistical software package. This course has weekly programming assignments. Level: Graduate

**BMKT 680 - Big Data and Innovation. 2 Credits.**

Prereq., BGEN 526, BGEN 516, and BGEN 505. An integration of Data Science theory and the actual practice of searching, sorting, relating, and deriving results from textual data. Students will be exposed to machine learning, natural language processing, as well as other computer assisted data mining techniques and then gain hands-on proficiency in the practice of data science using the software from data mining and document analysis vendors. Level: Graduate

**BMKT 689 - MSBA Capstone Prep. 1 Credit.**

Prereq., BGEN 505, BGEN 516, and BGEN 526. Restricted to graduate students. This course is the prequel to the capstone class that culminates the MS in Business Analytics. To set yourself up for success, you will spend five weeks finalizing your capstone topic, sourcing data, preparing the data for analysis, determining your research questions, and building an analysis plan. Additionally, this class will force you to produce multiple low-stakes writing assignments, building the habits that will propel you through the capstone.

**BMKT 694 - Seminar. 1-6 Credits.**

(R-12) Offered intermittently. Topic vary. Level: Graduate

**BMKT 699 - Capstone. 3 Credits.**

Prereq., BGEN 516, BGEN 526, BGEN 631, BGEN 632, BMIS 625, BMKT 582, BMKT 670, and BMKT 689. Coreq., BMIS 601, BMKT 673, and BMKT 680. Using a project-based approach, the course enables students to synthesize domain knowledge, apply their technical skills, and convey results of their data analysis through data visualizations and clear written and oral communication skills to achieve an integrative perspective of business analytics. Level: Graduate

## Career & Technical Education (CTE)

**CTE 191 - Special Topics. 1-6 Credits.**

(R-18) Offered intermittently. Experimental offerings of visiting professors, experimental offerings of new courses, or one-time offerings of current topics.

**CTE 292 - Independent Study. 1-12 Credits.**

(R-12) Course material appropriate to the needs and objectives of the individual student.

**CTE 295 - Field Work/Practicum. 1-6 Credits.**

(R-18) Supervised, practical experience in a professional setting relevant to the student's field of study.

**CTE 298 - Internship. 1-6 Credits.**

(R-6) Extended classroom experience that provides practical application of classroom learning during placements off campus. Prior approval must be obtained from the faculty supervisor. A maximum of 6 credits of Internship (198, 298, 398, 498) may count toward graduation.

**CTE 492 - Independent Study. 1-12 Credits.**

(R-12) Course material appropriate to the needs and objectives of the individual student.

**CTE 498 - Internship. 1-6 Credits.**

(R-6) Extended classroom experience that provides practical application of classroom learning during placements off campus. Prior approval must be obtained from the faculty supervisor. A maximum of 6 credits of Internship (198, 298, 398, 498) may count toward graduation.

## Chemical Addiction Studies (CAS)

**CAS 140X - Addictions and Diversity. 3 Credits.**

Offered autumn and spring. Offered at Missoula College. This course required for students seeking to obtain their Certificate of Technical Studies in Chemical and Addiction Studies and who wish to become Licensed Addiction Counselors in the State of Montana. Introduction to multicultural competencies where students will be exposed to the fundamentals of working with substance abusing and dependent individuals from the cultural impact of race, nationality, gender, age, sexual orientation, religion, and socio-economic status on the development and progression of alcohol/drug problems. Appropriate for students of Social Work, Psychology, community health, Business and Counseling students, Education, and those with an interest in diversity and addictions.

Gen Ed Attributes: Cultural & International Diversity

**CAS 191 - Special Topics. 3 Credits.**

(R-6) Offered intermittently. Offered at Missoula College. Experimental offerings of visiting professors, experimental offerings of new courses, or one-time offerings of current topics.

**CAS 192 - Independent Study. 1-6 Credits.**

(R-6). Course material appropriate to the needs and objectives of the individual student.

**CAS 195 - Field Work/Clinical/Practicum. 1-3 Credits.**

(R-3) Offered intermittently. Offered at Missoula College. Prereq., CAS 242. This field work placement focuses on prevention and will provide Chemical Addiction Studies students with direct experience working in community organizations where they will create and implement alcohol and drug prevention activities. May also be appropriate for students of Social Work, Psychology, Sociology, Community Health or those with an interest in learning about prevention practices with direct experience in community organizations.

**CAS 201 - Theories of Counseling. 3 Credits.**

Offered intermittently. Offered at Missoula College. This is an entry level survey course of various approaches to counseling and psychotherapy. The course is a mixture of lecture, discussion, experiential learning, demonstrations, role playing, viewing counseling sessions, and practice of the major contemporary models of counseling. Ethical and professional issues are also addressed.

**CAS 225 - Group Counseling. 3 Credits.**

Offered intermittently. Offered at Missoula College. Prereq., CAS 201. This course is intended for students seeking to obtain their Certificate of Technical Studies in Chemical and Addiction Studies and who wish to become Licensed Addiction Counselors in the State of Montana. Major theories and practice of counseling for the client with substance abusing or chemically dependent behavior in group settings. Includes comprehensive group approaches, family therapy and other appropriate group strategies. Includes group dynamics and strategies to managing group sessions.

**CAS 231N - Pharmacology and Addictions. 3 Credits.**

Offered autumn semester through Missoula College. This online course will provide students with an understanding of the pharmacology involved in addiction, with emphasis on addiction behavior and counseling.

Gen Ed Attributes: Natural Science

**CAS 242 - Fundamentals of Substance Abuse and Addiction. 3 Credits.**

Offered autumn. Offered at Missoula College. This course is for students seeking to obtain their Certificate of Technical Studies in Chemical and Addiction Studies and who wish to become Licensed Addiction Counselors in the State of Montana. May also be appropriate for Students of Social Work, Psychology, Sociology, or Community Health.

**CAS 243 - Substance Abuse Counseling I. 3 Credits.**

Offered autumn. Offered at Missoula College. This course is required for students seeking to obtain their Certificate of Technical Studies in Chemical and Addiction Studies and who wish to become Licensed Addiction Counselors in the State of Montana. This course is created to provide students specific knowledge regarding the theories, research, and evidenced-based literature in the provision of addiction counseling services. Students will be introduced to the overall scope of the problems of addictions, professional characteristics and principles of addiction counselors, ethical and legal responsibilities of professional behavior, addiction counseling skills and competencies required to be addiction counselors.

**CAS 248 - Substance Abuse Counseling II. 3 Credits.**

Offered spring. Offered at Missoula College. Prereq., CAS 243. This course is required for students seeking to obtain their Certificate of Technical Studies in Chemical and Addiction Studies and who wish to become Licensed Addiction Counselors in the State of Montana. Meets specific State of Montana educational requirements associated with individual and group counseling for addiction, as well as ethics for addiction counselors. The course requires the student to draw upon the resources provided by experts. The course work significant amount of experiential application and counseling practice techniques.

**CAS 252 - Gambling and Gaming Disorders in Addiction Counseling. 2 Credits.**

Offered spring at Missoula College. This course is part of a suite of courses leading to Certificate of Technical Studies in Chemical Addiction Studies.

**CAS 254 - Co-Occurring Disorders-Assessment & Treatment Planning. 2 Credits.**

Offered spring. Introduces students to Substance Use Disorders and co-occurring mental illness. Students will learn treatment protocols, and will learn how to work with individuals experiencing addiction and also have some other mental health issues. This is a Course that is part of a suite of courses that students can take to qualify for application to the Board of Behavioral Health for their ACLC (Addiction Counselor License Candidacy).

**CAS 260 - Addiction Assessment/Documentation/Treatment Planning. 3 Credits.**

Offered autumn. Offered at Missoula College. This course is required for students who wish to become Licensed Addiction Counselors in the State of Montana. Intended to provide a comprehensive education to meet State of Montana education requirements for Licensure in Addiction Counseling. Students will be trained in clinical assessment diagnosis, treatment planning and patient record documentation with the client who has substance use disorders. Students will complete experiential application of the materials.

**CAS 261 - Advanced Addiction Assessment/Treatment Planning and Documentation. 3 Credits.**

Offered spring. Prereq., or corequisite CAS 260. This course includes lectures, group work, applied activities, and written demonstration of addiction assessment skills, including addiction treatment planning and documentation. It is designed to provide advanced assessment, treatment planning and documentation education to those wishing to apply to become a Licensed Addiction Counselor.

**CAS 291 - Special Topics. 1-6 Credits.**

(R-6) Offered intermittently. Offered at Missoula College. Experimental offerings of visiting professors, experimental offerings of new courses, or one-time offerings of current topics.

**CAS 292 - Independent Study. 1-6 Credits.**

(R-6) Offered intermittently. Experimental offerings of visiting professors, experimental offerings of new courses, or one-time offerings of current topics.

**CAS 295 - Field Work/Clinical/Practicum. 1-4 Credits.**

(R-4) Offered intermittently. Offered at Missoula College. Prereq., CAS 242. This course is offered for students seeking to obtain their Certificate of Technical Studies in Chemical and Addiction Studies and who wish to become Licensed Addiction Counselors in the State of Montana. This Field Work Placement focuses on addiction treatment and counseling activities. The student will work in the community under the supervision of an addiction treatment professional and be given the opportunity to witness and participate in alcohol and drug treatment counseling activities.

## Chemistry (CHMY)

**CHMY 104 - Preparation for Chemistry. 4 Credits.**

Offered autumn. Prereq., EdReady placement level 2; or SAT 530; or ACT 21; or Maplesoft Arithmetic score  $\geq 16$ ; or Maplesoft Algebra score  $\geq 14$ ; or M 090 (Introductory Algebra) w/ C+ or better. An introduction to concepts and calculations in chemistry that provides preparation for CHMY 141N. Not appropriate toward chemistry requirement in any major.

**CHMY 121N - Introduction to General Chemistry. 4 Credits.**

Offered autumn and spring. Prereq., EdReady placement level 2.5; or SAT  $\geq 540$ ; or ACT  $\geq 22$ ; or UM Math Placement score  $\geq 25$ ; or M 121 (may be taken simultaneously) or a higher level mathematics course. This is the first semester of an introduction to the general, inorganic, organic, and biological chemistry series. It is intended for majors and programs that do not intend to take more than one year of chemistry or for students who require additional preparation before taking CHMY 141N.

Gen Ed Attributes: Natural Science

**CHMY 122 - Introduction to General Chemistry Lab. 1 Credit.**

Offered autumn and spring. Prereq. or coreq., CHMY 121N. Restricted to students in the Missoula College Nursing program. A laboratory course emphasizing inorganic chemistry, quantitative relations and synthesis of inorganic and organic compounds.

**CHMY 123 - Introduction to Organic and Biochemistry. 4 Credits.**

Offered autumn and spring. Prereq., CHMY 121N or CHMY 141N. Second semester of an introduction to general, inorganic, organic and biological chemistry.

**CHMY 124 - Introduction to Organic and Biochemistry Lab. 2 Credits.**

Offered autumn and spring. Prereq. or coreq., CHMY 123. Laboratory to accompany CHMY 123.

**CHMY 141N - College Chemistry I. 4 Credits.**

Offered autumn and spring. Prereq., EdReady placement level 3; or SAT 560; or ACT 23; or Maplesoft Algebra score  $\geq 14$ ; or M 095 with a C+ or better and Chemistry Placement Exam score  $\geq 13$ ; or either CHMY 104 or CHMY 121N. Coreq. or prereq. CHMY 142N. For science majors and other students intending to take more than one year of chemistry. Properties of elements, inorganic compounds, liquid solutions, chemical equilibria and chemical kinetics.

Gen Ed Attributes: Natural Science

**CHMY 142N - College Chemistry I Lab. 1 Credit.**

Offered Autumn and Spring. Prereq. or coreq., CHMY 141N. Use of experimental methodologies, scientific questioning and hypothesis driven guided inquiry experiments to explore and understand important fundamental chemical and laboratory concepts including stoichiometry, measurements, molecular structure, and thermodynamics.

Gen Ed Attributes: Natural Science Lab Course, Natural Science

**CHMY 143N - College Chemistry II. 4 Credits.**

Offered spring and summer. Prereq., CHMY 141N. Prereq. or coreq., CHMY 144N. A continuation of CHMY 141N.

Gen Ed Attributes: Natural Science

**CHMY 144N - College Chemistry II Lab. 1 Credit.**

Offered spring and summer. Prereq. or coreq., CHMY 143N. Continuation of CHMY 142N.

Gen Ed Attributes: Natural Science Lab Course, Natural Science

**CHMY 191 - Special Topics/Experimental Course. 1-6 Credits.**

(R-18) Offered intermittently. Experimental offerings of visiting professors, experimental offerings of new courses, or one-time offerings of current topics.

**CHMY 192 - Independent Study. 1-10 Credits.**

(R-10) Course material appropriate to the needs and objectives of the individual student.

**CHMY 195 - Practicum. 1-6 Credits.**

(R-6) Supervised, practical experience in a professional setting relevant to the student's field of study.

**CHMY 221 - Organic Chemistry I. 3 Credits.**

Offered autumn. Prereq., CHMY 123N or 143N. The chemical and physical properties of organic compounds.

**CHMY 222 - Organic Chemistry I Lab. 2 Credits.**

Offered autumn. Prereq., CHMY 122 or CHMY 124 or CHMY 141N or CHMY 143N. Coreq., CHMY 221. Microscale techniques are emphasized.

**CHMY 223 - Organic Chemistry II. 3 Credits.**

Offered spring. Prereq., CHMY 221. Continuation of 221.

**CHMY 224 - Organic Chemistry II Lab. 2 Credits.**

Offered spring. Prereq., CHMY 222. Prereq. or coreq., CHMY 223.

**CHMY 290 - Undergraduate Research. 1-6 Credits.**

(R-6) Offered intermittently. Experimental offerings of visiting professors, experimental offerings of new courses, or one-time offerings of current topics.

**CHMY 291 - Special Topics/Expmntl Crse. 1-6 Credits.**

(R-6) Offered intermittently. Experimental offerings of visiting professors, experimental offerings of new courses, or one-time offerings of current topics.

**CHMY 292 - Independent Study. 1-10 Credits.**

(R-10) Course material appropriate to the needs and objectives of the individual student.

**CHMY 294 - Seminar/Workshop. 1-3 Credits.**

(R-6) Offered intermittently. Topics vary.

**CHMY 311 - Analytical Chemistry-Quantitative Analysis. 4 Credits.**

Offered autumn. Classroom and laboratory work in gravimetric, volumetric, colorimetric and electrochemical methods of analysis; theory of errors; ionic equilibria in aqueous solutions.

**CHMY 313 - Introduction to Brewing Science. 1 Credit.**

Offered autumn. Prereq., CHMY 123 and BIOB 160. Introduction and review of chemistry, biochemistry and microbiology fundamentals needed to complete CHMY 314 Brewing Science.

**CHMY 314 - Brewing Science. 3 Credits.**

Offered autumn. Prereq., CHMY 313 or BIOM 360, CHMY 311, and BCH 380 or BCH 480. Advanced malting and brewing chemistry, biochemistry and microbiology, including lecture, laboratory, and practical components.

**CHMY 371 - Physical Chemistry-Quantum Chemistry & Spectroscopy. 4 Credits.**

Offered spring. Prereq., CHMY 373. Systematic treatment of the laws and theories relating to chemical phenomena.

**CHMY 373 - Physical Chemistry-Kinetics & Thermodynamics. 4 Credits.**

Offered autumn. Prereq., CHMY 143N, M 172, and PHSX 217N.

Systematic treatment of the laws and theories relating to chemical phenomena.

**CHMY 390 - Undergraduate Research. 1 Credit.**

Offered every term. Methods of peer-led team learning as applied to general chemistry instruction. Review of concepts from general chemistry. Student leaders mentor a team of general chemistry students in working toward constructing chemistry knowledge and developing problem-solving skills.

**CHMY 391 - Special Topics/Experimental Course. 1-9 Credits.**

(R-9) Offered intermittently. Experimental offerings of visiting professors, experimental offerings of new courses, or one-time offerings of current topics.

**CHMY 392 - Independent Study. 1-9 Credits.**

(R-9) Course material appropriate to the needs and objectives of the individual student.

**CHMY 397 - Teaching Chemistry. 1 Credit.**

Offered every term. Prereq., CHMY 141N and 143N with a minimum grade of B. Methods of peer-led team learning as applied to general chemistry instruction. Review of concepts from general chemistry. Student leaders mentor a team of general chemistry students in working toward constructing chemistry knowledge and developing problem-solving skills.

**CHMY 398 - Internship/Cooperative Education. 1-6 Credits.**

Offered autumn and spring. Extended classroom experience which provides practical application of classroom learning during placements off campus. Prior approval must be obtained from the faculty supervisor. A maximum of 6 credits of Internship (198, 298, 398, 498) may count toward graduation.

**CHMY 401 - Advanced Inorganic Chemistry. 3 Credits.**

Offered autumn. Prereq., CHMY 223. Theory and principles of inorganic chemistry and a systematic coverage of descriptive inorganic chemistry in the context of the periodic table. Level: Undergraduate-Graduate

**CHMY 402 - Advanced Inorganic Chemistry Lab. 2 Credits.**

Offered spring. Prereq., CHMY 224 and CHMY 373. Preparation of inorganic and coordination compounds. Isolation and characterization by ion exchange, column chromatography, IR, UV-VIS, derivatives, MP, and BP. Level: Undergraduate-Graduate

**CHMY 403 - Descriptive Inorganic Chemistry. 3 Credits.**

Prereq., CHMY 221 and CHMY 222; CHMY 371 and CHMY 373; and CHMY 401. A survey of the chemistry of the elements including transition metal reaction mechanisms, redox chemistry, organometallic chemistry, bioinorganic chemistry. Level: Undergraduate



**CHMY 411 - Advanced Organic Chemistry. 3 Credits.**

Offered intermittently. Prereq., CHMY 221 and CHMY 223. In this course, students will study organic chemistry, including chemoinformatics, structure and conformation, acid-base properties, kinetics/thermodynamics, mechanisms and reactivity, and synthetic strategy and key reactions. Level: Undergraduate-Graduate

**CHMY 420 - Chemoinformatics. 3 Credits.**

Offered Spring in even years. Demonstration of the wide possibilities of chemical computer modeling through a series of lectures and guided programming/simulation projects. The course will cover structure representations, representation interconversions, structure/reaction database searching, and structure similarity searching, followed by methods for the prediction of bulk properties, structures, reaction mechanisms, biological activity predictions and the design of drugs. Level: Undergraduate-Graduate

**CHMY 421 - Advanced Instrument Analysis. 4 Credits.**

Offered spring. Prereq., CHMY 311. Theory and use of instrumental methods in the study of analytical and physical chemistry. Level: Undergraduate-Graduate

**CHMY 442 - Aquatic Chemistry. 3 Credits.**

Offered autumn odd-numbered years. Prereq., CHMY 311. Application of chemical equilibria theory for understanding and modeling chemical processes in natural waters with an emphasis on spreadsheet computations. In depth examination of concepts such as pH, alkalinity, buffering, and solubility as they apply to natural waters. Level: Undergraduate-Graduate

**CHMY 465 - Organic Spectroscopy. 3 Credits.**

Offered intermittently. Theory and interpretation of the NMR, IR, UV, and mass spectra of organic compounds with the goal of structure identification. Enrollment is capped at 16 for this course. Level: Undergraduate-Graduate

**CHMY 466 - FT-NMR Option for Undergraduate Research. 1 Credit.**

Offered intermittently. Prereq., CHMY 221 and CHMY 222. Operation of the FT-NMR spectrometer and brief background of NMR spectroscopy. Level: Undergraduate

**CHMY 485 - Laboratory Safety. 1 Credit.**

Offered autumn. This course is for students who plan to teach high school and middle school science. Legal responsibilities of teachers, awareness of laboratory hazards and how to manage those hazards, resources for information regarding laboratory hazards. Level: Undergraduate-Graduate

**CHMY 488 - Forensic Research. 3 Credits.**

Offered autumn, spring and summer. Laboratory investigations and research on forensic chemistry topics under the direction of a faculty member. Level: Undergraduate

**CHMY 489 - Forensic Research Seminar. 1 Credit.**

Offered autumn. Prereq., CHMY 421. Seminar speakers on forensic science topics in the areas of ethics, law, anthropology and criminology; tours of the Montana State Crime Laboratory. Level: Undergraduate

**CHMY 490 - Undergraduate Research. 1-9 Credits.**

(R-9) Offered autumn, spring, and summer. Laboratory investigations and research in the laboratory of a faculty member. Level: Undergraduate

**CHMY 491 - Special Topics/Experimental Course. 1-9 Credits.**

(R-9) Offered intermittently. Experimental offerings of visiting professors, experimental offerings of new courses or one-time offerings of current topics. Level: Undergraduate-Graduate

**CHMY 492 - Independent Study. 1-9 Credits.**

(R-9) Offered autumn and spring. Course material appropriate to the needs and objectives of the individual student. Level: Undergraduate-Graduate

**CHMY 494 - Seminar/Workshop. 1-9 Credits.**

(R-9) Offered autumn and spring. Topics vary. Level: Undergraduate-Graduate

**CHMY 497 - Teaching Laboratory Chemistry. 1-3 Credits.**

Offered every semester. Prereq., CHMY 143N and CHMY 144N. Methods of peer-led learning as applied to general chemistry laboratory instruction. Review of concepts from general chemistry along with instruction in laboratory techniques, instrumentation, and data analysis. Student leaders mentor a group of general chemistry students in working toward constructing "hands-on" chemistry laboratory skills and developing data collection and problem-solving skills. Level: Undergraduate

**CHMY 498 - Internship/Cooperative Education. 1-6 Credits.**

(R-6) Extended non-classroom experience which provides practical application of classroom learning during placements off campus. Prior approval must be obtained from the faculty supervisor. A maximum of 6 credits of Internship (198, 298, 398, 498) may count toward graduation. Level: Undergraduate

**CHMY 499 - Senior Thesis/capstone. 3 Credits.**

Offered autumn and spring. Prereq., CHMY 490. Restricted to students with senior standing. Students complete and report on undergraduate research initiated in CHMY 490 or equivalent research experience. Reports are both oral and written. Level: Undergraduate

**CHMY 501 - Teaching University Chemistry. 1 Credit.**

Offered autumn. Preparation for teaching chemistry at the college level. A survey of teaching fundamentals and educational psychology as applied to chemistry instruction. Level: Graduate

**CHMY 541 - Environmental Chemistry. 3 Credits.**

Offered intermittently. Chemical principles and reactions in natural systems: Fate of chemical contaminants in the environment; partitioning of contaminants between phases (air/water/soil); chemistry of atmospheric pollutants; computer modeling of equilibrium and kinetic processes; degradation and transformation of organic contaminants. Level: Graduate

**CHMY 542 - Separation Science. 3 Credits.**

Offered intermittently. Theory, method development, and application of analytical separations; solvent extraction; solid phase extraction; various forms of chromatography; electrophoresis. Level: Graduate

**CHMY 543 - Mass Spectrometry. 3 Credits.**

Offered spring semester of odd years. Fundamentals, instrumentation and applications of mass spectrometry in chemistry and biochemistry. Level: Graduate

**CHMY 544 - Applied Spectroscopy. 3 Credits.**

Offered intermittently. The function and application of optical (ultraviolet to infrared) chemical instrumentation. Specific topics include optics, light sources, detectors and a wide variety of spectrochemical methods with an emphasis on methods not typically covered in undergraduate instrumental analysis courses. Level: Graduate

**CHMY 553 - Inorganic Chemistry and Current Literature. 4 Credits.**

Offered spring. A survey of the elements including transition metal reaction mechanisms, redox chemistry, organometallic chemistry, bioinorganic chemistry. Oral and written presentations on primary literature. Level: Graduate



**CHMY 562 - Organic Structure and Mechanisms. 3 Credits.**

Offered intermittently. Topics may include: stereochemistry, conformational analysis, aromaticity, transition state theory, isotope effects, solvent effects, substitution and elimination reactions, and mechanisms that involve carbocations, carbanions, radicals and carbenes as reactive intermediates. Level: Graduate

**CHMY 566 - FT-NMR for Graduates. 1 Credit.**

Offered intermittently. Operation of the FT-NMR spectrometer and brief background of NMR spectroscopy. Level: Graduate

**CHMY 568 - Organometallic Chemistry. 3 Credits.**

Offered intermittently in autumn. Survey of the reactivity and structure of main group and transition metal organometallic compounds with an emphasis on applications to organic synthesis and catalysis. Level: Graduate

**CHMY 580 - Advanced Graduate Research Seminars. 1 Credit.**

(R-10) Offered every term. Formal oral and written presentations of research results and selected literature topics in a designated area. Level: Graduate

**CHMY 590 - Research. 1-10 Credits.**

(R-18) Offered autumn and spring. Directed individual research and study appropriate to the background and objectives of the student. Level: Graduate

**CHMY 591 - Special Topics. 1-9 Credits.**

(R-24) Offered intermittently. Experimental offerings of visiting professors, experimental offerings of new courses, or one-time offerings of current topics. Level: Graduate

**CHMY 592 - Independent Study. 1-9 Credits.**

(R-9) Offered autumn and spring. Course material appropriate to the needs and objectives of the individual student. Level: Graduate

**CHMY 598 - Internship. 1-8 Credits.**

(R-8) Offered autumn and spring. Extended non-classroom experience which provides practical application of classroom learning during placements off campus. Prior approval must be obtained from the faculty supervisor. Level: Graduate

**CHMY 599 - Thesis/Professional Project. 1-6 Credits.**

(R-6) Offered autumn and spring. Preparation of a thesis, manuscript, or professional project based on research for presentation and/or publication. Level: Graduate

**CHMY 630 - Seminar. 1 Credit.**

(R-14) Offered autumn and spring. Restricted to students in Chemistry and Biochemistry. Topics vary. Level: Graduate

**CHMY 640 - Introductory Graduate Seminar. 1 Credit.**

(R-20) Offered autumn. Restricted to students in Chemistry and Biochemistry. Seminar to acquaint new graduate students with departmental research. Level: Graduate

**CHMY 650 - Graduate Chemistry Seminar. 1 Credit.**

(R-2) Offered spring. A review and discussion of current research. Topics vary. Level: Graduate

**CHMY 652 - Original Research Proposal. 1 Credit.**

Offered autumn. Preparation and presentation of original research proposals for third year graduate students. Level: Graduate

**CHMY 690 - Research. 1-10 Credits.**

(R-60) Offered autumn and spring. Directed individual research and study appropriate to the background and objectives of the student. Level: Graduate

**CHMY 699 - Dissertation. 1-10 Credits.**

(R-10) Offered autumn and spring. Preparation of extensive thesis or manuscript based on research for presentation and/or publication. Level: Graduate

## Chinese (CHIN)

**CHIN 101 - Elementary Chinese I. 5 Credits.**

Offered autumn. Emphasis on speaking, reading and writing elementary Mandarin.

**CHIN 102 - Elementary Chinese II. 5 Credits.**

Prereq., CHIN 101. Offered spring. Continuation of CHIN 101. Gen Ed Attributes: Language Requirement

**CHIN 191 - Special Topics. 1-9 Credits.**

(R-9) Offered intermittently. Experimental offerings of visiting professors, experimental offerings of new courses, or one-time offerings of current topics.

**CHIN 192 - Independent Study. 1-6 Credits.**

(R-6) Course material appropriate to the needs and objectives of the individual student.

**CHIN 201 - Intermediate Chinese I. 5 Credits.**

Offered autumn. Prereq., CHIN 102. Emphasis on oral communication, with continuing development in all major skill areas: listening, speaking, reading and writing.

Gen Ed Attributes: Language Requirement

**CHIN 202 - Intermediate Chinese II. 5 Credits.**

Offered spring. Prereq., CHIN 201. Continuation of CHIN 201. Gen Ed Attributes: Language Requirement

**CHIN 211 - Chinese Culture and Civilization. 3 Credits.**

Offered intermittently. An introduction to the historical, intellectual, political, literary and social developments of China from early times to the present.

**CHIN 291 - Special Topics. 1-9 Credits.**

(R-9) Offered intermittently. Experimental offerings of visiting professors, experimental offerings of new courses, or one-time offerings of current topics.

**CHIN 292 - Independent Study. 1-6 Credits.**

(R-6) Offered autumn and spring. Course material appropriate to the needs and objectives of the individual student.

**CHIN 301 - Advanced Chinese I. 3 Credits.**

Offered autumn. Prereq., CHIN 202. Advanced Chinese, with emphasis on literary style, advanced grammar, and oral expression. Gen Ed Attributes: Language Requirement

**CHIN 313L - Chinese Poetry in Translation. 3 Credits.**

Offered intermittently. The works of major Chinese poets to 1300 A.D. Gen Ed Attributes: Literary & Artistic Studies

**CHIN 314 - Traditional Chinese Literature. 3 Credits.**

Offered intermittently. Highlights of Chinese literature to 1800; includes philosophy, poetry, prose, and fiction.

**CHIN 380 - Chinese Folktales. 3 Credits.**

Offered intermittently. The study of the aspirations, desires, loves, moral and aesthetic values of the Chinese people as expressed in their folk literature.

**CHIN 388 - Readings in Classical Chinese. 3 Credits.**

Prereq., CHIN 102. Introduces the basic grammar, syntax, and vocabulary of Classical Chinese through the reading of selected short representative texts from the formative and mature periods of the language's history.

**CHIN 391 - Special Topics. 1-12 Credits.**

(R-9) Offered intermittently. Experimental offerings of visiting professors, experimental offerings of new courses, or one-time offerings of current topics.

**CHIN 392 - Independent Study. 1-6 Credits.**

(R-12) Offered autumn and spring. Course material appropriate to the needs and objectives of the individual student.

**CHIN 491 - Special Topics. 1-9 Credits.**

(R-9) Offered intermittently. Experimental offerings of visiting professors, experimental offerings of new courses, or one-time offerings of current topics. Level: Undergraduate-Graduate

**CHIN 492 - Independent Study. 1-9 Credits.**

(R-9) Offered intermittently. Course material appropriate to the needs and objectives of the individual student. Level: Undergraduate-Graduate

## Classics (CLAS)

**CLAS 160L - Classical Mythology. 3 Credits.**

Offered every spring and intermittently in summer. Deities and myths of the Greeks and Romans, with emphasis on those of most importance to Western literature and art.

Gen Ed Attributes: Literary & Artistic Studies

**CLAS 180H - Environment & Nature in Classical World. 3 Credits.**

Offered Intermittently. An interdisciplinary survey of Greek and Roman attitudes towards the environment. The course examines the intellectual and literary history of Classical environmental thought through literature as well as geography, anthropology, archaeology, art history. Topics covered include cosmogony, deforestation, evolution, famine, pre-industrial peasant economy, and human interaction with the landscape through engineering and agriculture.

Gen Ed Attributes: Historical Studies, Writing Across the Curriculum

**CLAS 191 - Special Topics. 1-6 Credits.**

(R-6) Offered intermittently. Experimental offerings of visiting professors, experimental offerings of new courses or one time offerings of current topics.

**CLAS 192 - Independent Study. 1-6 Credits.**

(R-6) Offered autumn and spring. Course material appropriate to the needs and objectives of the individual student.

**CLAS 193 - Study Abroad. 1 Credit.**

An orientation to the winter session travel program in Greece. It prepares students for overseas travel through an overview of the major historical periods of Ancient Greece. This overview includes an introduction to Greek art and architecture, history, literature, and philosophy. Students will also begin preparations for individual research projects that will present at various sites in Greece. This class will also help students prepare paperwork required by the University for overseas travel programs.

**CLAS 198 - Internship. 1-6 Credits.**

Extended classroom experience which provides practical application of classroom learning during placements off campus. Prior approval must be obtained from the faculty supervisor. A maximum of 6 credits of Internship (198, 298, 398, 498) may count toward graduation.

**CLAS 251L - The Epic. 3 Credits.**

(R-6) Offered intermittently. Reading, study and discussion of epic poems. Selections will vary from Western and non-Western traditions.

Gen Ed Attributes: Literary & Artistic Studies, Writing Across the Curriculum

**CLAS 252L - Greek Drama: Politics on Stage. 3 Credits.**

(R-6) Offered intermittently. A study of the literary, artistic and political dimensions of Greek Tragedy and Comedy. Selections will vary. Gen Ed Attributes: Literary & Artistic Studies, Writing Across the Curriculum

**CLAS 291 - Special Topics. 1-6 Credits.**

(R-6) Offered intermittently. Experimental offerings of visiting professors, experimental offerings of new courses, or one time offerings of current topics.

**CLAS 292 - Independent Study. 1-6 Credits.**

(R-6) Course material appropriate to the needs and objectives of the individual student.

**CLAS 360H - Ancient Greek Civilization and Culture. 3 Credits.**

Offered intermittently. Slide-lecture course. Ancient Greek works of art and architecture, related to and explained by contemporary ideas and values of Greek society.

Gen Ed Attributes: Historical Studies

**CLAS 391 - Special Topics. 1-9 Credits.**

(R-9) Offered intermittently. Experimental offering of visiting professors, experimental offerings of new courses or one time offerings of current topics.

**CLAS 392 - Independent Study. 1-6 Credits.**

(R-12) Course material appropriate to the needs and objectives of the individual student.

**CLAS 393 - Study Abroad. 3 Credits.**

Prereq., CLAS 193. Site visits include Athens, Knossos, Mycenae, Corinth, Olympia, Delphi and others. Lectures on location in museums and archaeological sites.

**CLAS 399 - Capstone. 3 Credits.**

Prereq., WRIT 101, LATN 202 and GRK 202. Requires junior standing. The Classics Proseminar serves as a capstone experience and research methodology course required of majors in Classical Languages, Classical Civilizations, and Latin. Students will develop advanced research skills in a variety of interdisciplinary approaches arranged around a seminar topic. Students will have the opportunity to be introduced to advanced topics in Classics including lexicography, epigraphy, palaeography, textual criticism, archaeology, numismatics, etc. The class will culminate in a research symposium during which students will present their research papers.

Gen Ed Attributes: Writing in the Disciplines

**CLAS 591 - Special Topics. 1-6 Credits.**

(R-24) Offered intermittently. Experimental offering of visiting professors, experimental offerings of new courses, or one time offerings of current topics. Level: Graduate

**CLAS 594 - Graduate Seminar. 1-6 Credits.**

(R-6) Offered intermittently. A review and discussion of current research. Topics vary. Level: Graduate

**CLAS 598 - Internship. 1-9 Credits.**

(R-9) Offered intermittently. Extended classroom experience which provides practical application of classroom learning during placements off campus. Prior approval must be obtained from the faculty supervisor. Level: Graduate

## Climate Change Studies (CCS)

### **CCS 103X - Introduction to Climate Change: Science & Society. 3 Credits.**

Offered autumn. This is an introductory and foundational course on the scientific and social dimensions of global climate change. The goal of this course is to provide students with a basic understanding of the fundamental scientific, social, political and technological issues arising from rapid climatic change. As a result, it provides students with a breadth of knowledge and builds connectedness across these varied dimensions of the complex global issue.

Gen Ed Attributes: Cultural & International Diversity

### **CCS 191 - Special Topics. 1-12 Credits.**

(R-12) Offered intermittently. Experimental offerings of visiting professors, experimental offerings of new courses, or one-time offerings of current topics.

### **CCS 295 - Field Work/Practicum. 1-9 Credits.**

(R-9) Offered intermittently. Supervised, practical experience in a professional setting relevant to the student's field of study.

### **CCS 298 - Internship. 2 Credits.**

Offered every term. Extended classroom experience providing practical application of classroom learning through on the job training in a student's field of study. This experience increases student skills, prepares them for initial employment, and increases occupational awareness and professionalism.

### **CCS 391 - Special Topics. 1-12 Credits.**

(R-12) Offered intermittently. Experimental offerings of visiting professors, experimental offerings of new courses, or one-time offerings of current topics.

### **CCS 395 - Climate Change Practicum. 2-4 Credits.**

Offered autumn and spring. Provides an opportunity for students to design and implement a capstone project involving creative solutions to climate change.

### **CCS 398 - Climate Change Internship and Service Learning. 2-4 Credits.**

(R-6) Offered autumn and spring. This course gives students an opportunity to gain hands-on, real world experience working with a local, regional, national, or international group to address climate change. Students gain supervised, practical work experience with specific projects and organizations, create a network of professional contacts, and have the opportunity to apply ideas and approaches studied in the Climate Change Studies minor.

### **CCS 494 - Climate Change Studies Seminar. 1-4 Credits.**

Offered intermittently. A seminar on a current climate change topic. Level: Undergraduate

### **CCS 495 - Special Topics. 1-9 Credits.**

(R-9) Offered intermittently. Experimental offering of visiting professors, experimental offerings of new courses or one time offerings of current topics. Level: Undergraduate

## Coaching (COA)

### **COA 405 - Advanced Concepts in Coaching. 3 Credits.**

Restricted to students with at least junior status. This course will introduce students to a solid foundation in coaching. It includes coaching theories, competitive coaching strategies, and training methods and techniques. The course will cover the requirements for the bronze level of the American Sport Education Program (ASEP). Appropriate for coaches at all levels, but will focus on basic skills of coaching for youth through high school. Level: Undergraduate-Graduate

### **COA 494 - Seminar. 1-6 Credits.**

(R-6) A review and discussion of current research. Topics vary. Level: Undergraduate

## College Success (COLS)

### **COLS 101 - First Year Seminar. 2 Credits.**

Offered at Missoula College. This course is designed to help new students make a successful transition to college and acquire the skills needed to become competent and successful in higher education. Topics include an introduction to campus resources and academic policies; motivation and time management; study skills and learning strategies; critical thinking and problem solving; ethics, diversity and collaboration; information literacy and research. The course culminates with a semester capstone project. Credit not allowed for both COLS 101 and COLS 103.

### **COLS 103 - Study & Learning Strategy. 2 Credits.**

Offered at Missoula College. This course facilitates the development of skills needed to become competent and successful in higher education. Topics include management of classroom performance, time, and money; memory, listening and note-taking; reading and test-taking strategies; critical thinking and problem-solving; information literacy and research; ethics and diversity; stress management and healthy choices. Credit not allowed for both COLS 101 and COLS 103.

### **COLS 160 - Learning Strategy in Higher Education. 1-2 Credits.**

Offered autumn and spring. Instruction and application of college study skills including lecture note taking, time management, reading textbooks, test taking, and critical thinking.

### **COLS 162 - NCAA Student-Athlete Experience. 1 Credit.**

This course is designed to assist students in the development of necessary skills to be a successful college student-athlete. Topics will include a wide variety of areas including study skills, an introduction to campus resources, and personal and career development. Students will identify and discuss specific issues that pertain to them as student-athletes.

### **COLS 163 - Student-Athlete Success. 1 Credit.**

This seminar is designed to assist student-athletes in developing necessary life skills that will help them in their remaining years at the University of Montana. Topics will include a wide variety of areas such as: financial management, nutrition, career development and planning, healthy relationship skills, social responsibility, social etiquette, conflict resolution, and leadership.

### **COLS 191 - Special Topics. 1-6 Credits.**

(R-6) Offered autumn and spring. Experimental offerings of visiting professors, experimental offerings of new courses, or one-time offerings of current topics.

### **COLS 194 - Seminar/Workshop. 1-6 Credits.**

(R-6) Offered autumn and spring. A review and discussion of current research. Topics vary. This First-Year Experience workshop teaches the research-based skills and mindsets of Design Thinking (innovative problem-solving strategies) and how to apply this toolkit to search for clearer academic, personal, and career goals. In addition to addressing persistent questions regarding why are you here, who/what do you want to be, and where are you going, students will develop failure resilient and exploratory mindsets. This First-Year Experience workshop will walk students through group-based activities facilitated by caring instructors and peer educators that combine engaging readings, in-class discussion, reflective exercises, and out-of-class activities and interviews.

**COLS 295 - Peer Tutoring Training. 1-3 Credits.**

Offered every semester at Missoula College. Open to Missoula College or Mountain Campus students who have completed at least one semester in the course for which they will tutor. Meets in class on hour each week, with three hours of tutoring per week in supervised setting required after week 3.

**COLS 362 - Life After Sport. 1 Credit.**

This course is designed to create awareness and build strategies to assist students with the mental, physical, and emotional aspects of transitioning out of college athletics. Students will learn to apply their collegiate academic and athletic experiences toward professional career opportunities and life after sport. Topics will include core values, resume & cover letter creation, mock interview, LinkedIn, networking, physical wellness, mental wellness, financial literacy, and reflection pieces to create a final portfolio.

**COLS 391 - Special Topics. 1-6 Credits.**

(R-6) Experimental offerings of visiting professors, experimental offerings of new courses, or one-time offerings of current topics.

**COLS 392 - Independent Study. 1-9 Credits.**

(R-9) Course material appropriate to the needs and objectives of the individual student.

**COLS 394 - Peer Educator Training Seminar. 1 Credit.**

This course focuses on establishing a base understanding of the peer educator role, equipping students with the knowledge and skill sets to triage common situations, and preparing students selected as Peer Educators for the COLS 194 first year experiences for work as instructional team members.

**COLS 395 - Field Work/Practicum. 1-6 Credits.**

(R-6) This course provides undergraduates with the necessary support to be effective Peer Educators during fieldwork placements in first-year experience courses.

**COLS 398 - Internship. 1-6 Credits.**

(R-6) Extended classroom experience that provides practical application of classroom learning during placements off campus. Prior approval must be obtained from the faculty supervisor. A maximum of 6 credits of Internship (198, 298, 398, 498) may count toward graduation.

**COLS 494 - Seminar. 1-6 Credits.**

(R-12) Offered intermittently. Topics Vary. Level: Undergraduate

**COLS 498 - Internship: Advanced Peer Educator. 1-6 Credits.**

(R-6) Extended classroom experience that provides practical application of classroom learning during placements off campus. Prior approval must be obtained from the faculty supervisor. A maximum of 6 credits of Internship (198, 298, 398, 498) may count toward graduation. Level: Undergraduate

## Communication (COMX)

**COMX 102 - Interpersonal Skills in the Workplace. 1 Credit.**

Offered at Missoula College. This course will introduce students to interpersonal communication theory which can be applied to a workplace environment. Students will learn effective communication strategies that promote success in professional and personal relationships.

**COMX 111A - Introduction to Public Speaking. 3 Credits.**

Offered every term. Offered on Mountain Campus and at Missoula College. Preparation, presentation, and criticism of speeches. Emphasis on the development of public speaking techniques through constructive criticism.

Gen Ed Attributes: Expressive Arts

**COMX 115S - Introduction to Interpersonal Communication. 3 Credits.**

Offered autumn and spring. Offered on Mountain Campus and at Missoula College. An overview of the process of human communication with special emphasis on analyzing communication patterns and improving interpersonal communication skills.

Gen Ed Attributes: Social Sciences

**COMX 140L - Introduction to Visual Rhetoric. 3 Credits.**

Offered autumn and spring. Offered at Missoula College. An introduction to the persuasive nature of visual symbols as texts. Readings will include historical to contemporary rhetorical criticisms on advertising, billboards, bodies, cartoons, memorials, and photography.

Gen Ed Attributes: Literary & Artistic Studies, Democracy and Citizenship

**COMX 191 - Special Topics. 1-9 Credits.**

(R-9) Offered intermittently. Experimental offerings of visiting professors, experimental offerings of new courses, or one-time offerings of current topics.

**COMX 192 - Independent Study. 1-6 Credits.**

(R-6) Offered intermittently. Course material appropriate to the needs and objectives of the individual student.

**COMX 198 - Internship. 1-6 Credits.**

(R-6) Offered autumn and spring. Extended classroom experience that provides practical application of classroom learning during placements off campus. Prior approval must be obtained from the faculty supervisor. A maximum of 6 credits of Internship (198, 298, 398, 498) may count toward graduation.

**COMX 202S - Nonverbal Communication. 3 Credits.**

Offered yearly. Nonverbal code systems and how they function in human communication including gestures, facial expressions, personal space, and others.

Gen Ed Attributes: Social Sciences

**COMX 204X - International and Development Communication. 3 Credits.**

Offered yearly. International Communication is concerned with information exchange across national borders while Development Communication focuses on the historical, current, and prospective role of communication technologies in social change, improving living conditions, and enhancing life prospects - mainly in developing countries.

Gen Ed Attributes: Cultural & International Diversity

**COMX 205Y - Deliberative Democracy. 3 Credits.**

Offered at Missoula College. This course introduces students to the theory and practice of deliberative democracy, in which citizens and other individuals actively participate to help society reach decisions that are just, sound, and sustainable. Students will learn how deliberative and other participatory democratic processes have been used around the globe to allocate limited resources, meet collective needs, and achieve common goals. Students will build capacities for inquiry, listening to understand, appreciation, reflection, considering multiple perspectives, and finding common ground, all of which are part of dialogue and deliberation. Case studies and hands-on practice will help students appreciate the challenges and opportunities of deliberative democracy. This course will build capacities to be an informed, engaged, and empowered global citizen.

Gen Ed Attributes: Democracy and Citizenship

**COMX 210 - Communication in Small Groups. 3 Credits.**

Offered autumn and spring. Theory and research related to communication roles, collaboration, cohesion, leadership, and decision-making. Experiences provided in task oriented groups and field analyses of group processes.



**COMX 212X - Introduction to Intercultural Communication. 3 Credits.**

Offered autumn and spring. Offered at Missoula College. This course provides students with an introduction to communicating across cultures. Local and global case studies and theories will be explored. Students will explore the influence of immediate communication and social media on large scale social issues.

Gen Ed Attributes: Cultural & International Diversity

**COMX 219S - Survey of Children's Communication. 3 Credits.**

Offered autumn. Offered at Missoula College. Focus on communication processes and contemporary communication environments of children and adolescents. Topics include language development and the brain, nonverbal communication development, media, contracting, bullying, and gender.

Gen Ed Attributes: Social Sciences

**COMX 220S - Introduction to Organizational Communication. 3 Credits.**

Offered yearly. Theory and research on communication in organizations. Focus on topics such as productivity, power, culture, socialization, technology and globalization covering a wide range of organizations including corporations, government, educational institutions, non-profit agencies and media organizations.

Gen Ed Attributes: Social Sciences

**COMX 222 - Professional Communication. 3 Credits.**

Offered intermittently. Explores communication skills needed in business and professional contexts. Focus on developing a working knowledge of theory and skills for interpersonal communication, group communication, and business writing. Concepts include communication processes, diversity in the workplace, nonverbal communication, technical communication, communication with customers, and employment communication.

**COMX 240H - Introduction to Rhetorical Theory. 3 Credits.**

Offered yearly. An overview of rhetorical theory including an exploration of classical rhetoric, British and Continental rhetorical theory, and contemporary theories of language and persuasion.

Gen Ed Attributes: Historical Studies

**COMX 242 - Argumentation. 3 Credits.**

Offered intermittently. Development of argumentation skills and critical judgment in decision-making and debate. Includes criticism, construction, presentation, and refutation of spoken and written arguments.

**COMX 250 - Introduction to Public Relations. 3 Credits.**

Offered autumn and spring. Offered at Missoula College. Introduction to the origin, scope, and nature of public relations activities. Investigation of policies, strategies, and procedures available to an organization in establishing and controlling its communications. Course will explore the impact of public relations and media through case studies and writing exercises.

**COMX 290 - Undergraduate Research. 1-6 Credits.**

(R-6) Directed individual research and study appropriate to the background and objectives of the student.

**COMX 291 - Special Topics. 1-6 Credits.**

(R-6) Experimental offerings of visiting professors, experimental offerings of new courses, or one-time offerings of current topics.

**COMX 292 - Independent Study. 1-6 Credits.**

(R-6) Course material appropriate to the needs and objectives of the individual student.

**COMX 311 - Family Communication. 3 Credits.**

Offered intermittently. An examination of communication in marriage/romantic partnership, parent-child, and extended family relationships. Topics include intimacy, power, decision-making, problem solving, identity formation, and interpersonal perception.

**COMX 312 - Debate & Speech. 1-3 Credits.**

(R-12) Offered every term. Preparation and participation in competitive speech and debate. The team travels to regional competitions and hosts on-campus and intramural debates and speaking events. Up to 6 credits may apply toward a major or minor in communication studies.

**COMX 327 - Health Misinformation. 3 Credits.**

We live in an amazing era in which it's easier than ever to gather information. But what is accurate, what is misleading, and how can we tell the difference when it comes to health and illness? Health-related myths, assumptions, and flat-out lies not only trick people out of money but lead them to make bad healthcare decisions, which can lead to negative outcomes such as prolonged sickness and even premature death. This course will help students become a better healthcare consumers by exploring how health topics are properly, and improperly, communicated, and asking them to think critically about what we know, what we assume, and what we completely fabricate regarding health and illness. Throughout the semester, students will learn to identify misinformation, disinformation, and malinformation in several specific contexts, such as a) public health, including government regulations, oversight, and policies; b) corporate health communication, including the rise of the "Wellness" industry; c) misrepresentation of research results and health-related statistics; and e) interpersonal miscommunication about health. Case studies and true examples are used often to illustrate the idea that misinformation takes many forms. Along the way, students will learn new things about health, nutrition, healing, illness, and science, and will boost their health communication savviness by developing the critical thinking skills that will protect them from health-related myths, false assumptions, and flat-out lies. By the end of this course, students will be able to identify biased and inaccurate health-related information and critically analyze what makes it misleading; understand why health misinformation is out there and how it spreads; express ideas and academic knowledge in a coherent, complete way; have respectful, intelligent conversations about misunderstood health-related topics; and effectively work with others on a multiple-member team to complete a final project, which includes practicing team conflict management skills.

**COMX 347 - Rhetoric, Nature, and Environmentalism. 3 Credits.**

Offered annually. Prereq., WRIT 101 or WRIT 201. Survey of rhetorical texts that shape public understanding of nature and environmental issues. Analysis of a range of historical and contemporary environmental texts using theoretical concepts from the rhetorical tradition.

Gen Ed Attributes: Writing in the Disciplines

**COMX 349 - Communication, Consumption, and Climate. 3 Credits.**

Offered intermittently. Analyzes consumption as a communication practice, investigates discourses that promote consumption, and illuminates environmental impacts on consumption.

**COMX 351 - Principles of Public Relations. 3 Credits.**

Offered yearly. The many uses of communication in the endeavor of public relations. Communication theories and models including interpersonal communication, organizational communication, and mass communication are applied to explore the internal and external communication behavior associated with public relations.



**COMX 352 - Public Relations Portfolio. 3 Credits.**

Offered yearly. Writing documents such as press releases, fact sheets, brochures and speeches to create relationships between organizations and their publics.

**COMX 370 - Relationships and the Brain. 3 Credits.**

Offered intermittently. The structure and processing of the human brain is intrinsic to communication and connections with others in close relationships. In this course we explore how communication in relationships helps form neural structures and pathways and in turn how our potential to communicate with others is shaped by the structures and processes of our brains.

**COMX 380 - Gender and Communication. 3 Credits.**

Offered yearly. The meaning of gender in our culture. Examines how gender is displayed and perpetuated through social institutions such as the media and through our private and public verbal and nonverbal interactions.

**COMX 391 - Special Topics. 1-9 Credits.**

(R-9) Offered intermittently. Experimental offerings of visiting professors, experimental offerings of new courses, or one-time offerings of current topics.

**COMX 398 - Internship. 1-6 Credits.**

(R-6) Offered autumn and spring. Extended classroom experience that provides practical application of classroom learning during placements off campus. Prior approval must be obtained from the faculty supervisor. A maximum of 6 credits of Internship (198, 298, 398, 498) may count toward graduation. Offered CR/NCR only.

**COMX 412 - Communication and Conflict. 3 Credits.**

Offered intermittently. Conceptual and practical discussions of communication and conflict in interpersonal relationships, organizational settings and overall cultural milieu. Topics include culture, power, styles, negotiation and bargaining, mediation, dissent, dispute systems, and crisis communication. Level: Undergraduate-Graduate

**COMX 414 - Communication in Personal Relationships. 3 Credits.**

Offered fall and spring. Prereq., WRIT 101 or WRIT 201; and COMX 115S. An examination of the functions, types, and historical context of close personal relationships with an in-depth study of the role of communication in friendships and romantic relationships. Level: Undergraduate-Graduate  
Gen Ed Attributes: Writing in the Disciplines

**COMX 415 - Intercultural Communication. 3 Credits.**

Offered autumn and spring. Communication principles and processes in cross-cultural environments. Non-Western cultures are emphasized by contrasting them to Western communication norms. Level: Undergraduate-Graduate

**COMX 421 - Communication in Nonprofit Organizations. 3 Credits.**

Offered yearly. Prereq., WRIT 101 or WRIT 201. Focuses on issues in nonprofit organizational communication at macro and micro levels. Topics include: organizational identity, change processes, public relations, fund-raising, advocacy, socialization, stress and burnout, board management and professionalization. Level: Undergraduate-Graduate  
Gen Ed Attributes: Writing in the Disciplines

**COMX 422 - Communication and Technology. 3 Credits.**

Offered intermittently. Prereq., WRIT 101 or WRIT 201. This course takes a critical look at the influence of communication technologies on organizational communication. Students will examine how the world of work is changing due to new technologies and explore the social and ethical implications of technical innovation, adoption and use. Level: Undergraduate-Graduate  
Gen Ed Attributes: Writing in the Disciplines

**COMX 423 - Organizational Communication Consulting and Training. 3 Credits.**

Offered every year. Prereq., COMX 220S. Emphasis on the theoretical and practical issues involved in communication training and consultation. Overview of theoretical models followed by the "nuts and bolts" of communication training, development, and assessment. Students will carry out a training or consultation project (e.g., planning, execution, and evaluation) to sharpen the issues explored. Level: Undergraduate-Graduate

**COMX 424 - Risk, Crisis, and Communication. 3 Credits.**

Offered every other year. This course explores the communicative dynamics that both prevent and cause organizational crisis. Through case studies, the class examines how people plan, communicate and make good decisions in high-risk situations, as well as how to manage crisis public relations effectively. Level: Undergraduate-Graduate

**COMX 425 - Communication in Health Organizations. 3 Credits.**

Offered intermittently. This course explores the key issues at the intersection of health communication and organizational communication by considering communication processes that occur in a number of distinct contexts of health organizations. Through case studies and health campaigns students explore contemporary concerns and theory in the area of health communication. Level: Undergraduate-Graduate

**COMX 428 - Organizations and Identity. 3 Credits.**

Course explores a communication perspective on identity and investigates foundational questions relevant to all humans: "Who am I?" and "How should I act?" in the context of organizations. Level: Undergraduate-Graduate

**COMX 431 - New Media Skills. 3 Credits.**

Offered intermittently. Students examine the role of social media in many high-profile case studies and apply key learnings from these examples to develop their own social media skills. Students will learn to use industry-standard tools to complete assignments that can become portfolio pieces that demonstrate their knowledge of using social media strategically. Level: Undergraduate

**COMX 445 - Rhetorical Criticism and Theory. 3 Credits.**

Offered yearly. Prereq., WRIT 101 or WRIT 201. Introduction to study of rhetorical criticism and theory. Current theoretical and methodological issues and approaches explored. Level: Undergraduate-Graduate  
Gen Ed Attributes: Writing in the Disciplines

**COMX 448 - Feminisms and Film. 3 Credits.**

Offered intermittently. Hollywood films are cultural artifacts that speak to the times in which they are made. In this class, we explore the intersection between US feminisms and films, focusing on films made during the second wave of feminisms as well as films that depict this history of the feminist movement. Level: Undergraduate

**COMX 449 - Rhetoric of Women's Activism. 3 Credits.**

Offered intermittently. Explores the rhetoric surrounding contemporary women's social activism in the U.S. Topics include women's rights, women's liberation, consciousness raising as a rhetorical form, reproductive rights, sexuality, and intersections between gender, race, and class. Level: Undergraduate-Graduate

**COMX 460 - Research Methods. 3 Credits.**

Offered once each year. Restricted to students in the Communication Studies major. Students are encouraged to take COMX 461 in conjunction with this course when it is offered. Introduction to the major types of communication research and the foundations of quantitative research methods. Level: Undergraduate-Graduate

**COMX 461 - Communication Research Seminar. 1-3 Credits.**

(R-9) Offered intermittently. This course should be taken in conjunction with COMX 460 or COMX 462. Application of quantitative and qualitative research methods to specialized contexts. Emphasis on direct student involvement in research activities. Level: Undergraduate-Graduate

**COMX 462 - Qualitative Research Methods. 3 Credits.**

Students are encouraged to take COMX 461 in conjunction with this course when it is offered. Students will explore qualitative research methods commonly used in Communication Studies, including data collections like ethnography, focus groups and interviews, and analysis methods like grounded theory coding and content analysis. Working in small groups, they will plan, develop, conduct, write, and present an original qualitative research project. Level: Undergraduate

**COMX 480 - Health Communication. 3 Credits.**

Offered yearly. This course explores key findings in health communication research and practice, focusing on a wide range of media. As a survey course, it provides an overview of the field of health communication with attention to analysis and practice of health communication relationships and messages. It examines the literature and key health communication campaigns, messages and target audiences. Level: Undergraduate-Graduate

**COMX 483 - Communication for Social and Behavior Change. 3 Credits.**

Aims to equip students with skills for using the power of communication to bring about positive change locally and globally in areas such as public health, sustainable development, and social justice. The course connects theory to practice in social and behavior change communication and introduces a wide array of implementation models and tool kits. Level: Undergraduate-Graduate

**COMX 485 - Social Interaction and Human Well-Being. 3 Credits.**

Offered yearly. Examines theory and research on the health correlates of human interaction across the lifespan. Students learn how and why specific types of communicative activity relate to health and well-being outcomes. Level: Undergraduate-Graduate

**COMX 486 - Health and Family Communication. 3 Credits.**

Prereq., WRIT 101 or WRIT 201. This course will explore the intersection of communication, family, and health. Using communication theories, models and concepts, we will address the following questions: How does the family's health and illness impact the way they communicate? How does family communication influence health behavior and beliefs? Level: Undergraduate-Graduate

Gen Ed Attributes: Writing in the Disciplines

**COMX 491 - Special Topics. 1-3 Credits.**

(R-9) Offered intermittently. Experimental offerings of visiting professors, experimental offerings of new courses, or one-time offerings of current topics. Level: Undergraduate-Graduate

**COMX 492 - Independent Study. 1-9 Credits.**

(R-9) Course material appropriate to the needs and objectives of the individual student. Level: Undergraduate-Graduate

**COMX 493 - Study Abroad/Tours. 1-12 Credits.**

Offered intermittently. Organized faculty-led study abroad tours. Level: Undergraduate-Graduate

**COMX 495 - Practicum. 1-9 Credits.**

(R-9) Offered intermittently. Supervised, practical experience in a professional setting relevant to the student's field of study. Level: Undergraduate-Graduate

**COMX 510 - Seminar in Personal Relationships. 3 Credits.**

(R-6) Offered yearly. Examines theory and research on the process and functions of communication in personal relationship contexts. Interdisciplinary readings illuminates the dynamics of communication in the development, maintenance, and deterioration of romantic relationships, friendships, and family relationships. Discussion and assignments center around theoretical, methodological, and practical issues in research on communicative activities and events in personal relationships. Level: Graduate

**COMX 511 - Survey of Interpersonal Communication. 3 Credits.**

Offered every other year. Survey of theories and research in interpersonal communication including definitions of interpersonal communication, its place in the field of communication, and methodological issues. Overall emphasis on foundational readings and recent research developments. Level: Graduate

**COMX 520 - Seminar in Organizational Communication. 3 Credits.**

(R-6) Offered every other year. Introduction to theories and research in organizational communication. Topics include culture, networks, structure, technology, identity, power, resistance, gender, and globalization. Overall emphasis on foundational readings and recent research developments. Level: Graduate

**COMX 540 - Seminar in Instructional Communication. 3 Credits.**

Offered every other year. Instruction in the theories, concepts, principles, and skills employed university level classroom communication and instruction. Level: Graduate

**COMX 555 - Seminar in Rhetoric, Criticism, & Theory. 3 Credits.**

Offered yearly. Exploration of contemporary issues in rhetorical criticism and theory. Level: Graduate

**COMX 561 - Qualitative Research Methods. 3 Credits.**

Offered every year. An emphasis on the philosophy and practice of qualitative inquiry, the development and use of descriptive frameworks, and gathering and testing qualitative data to develop human communication theory. Level: Graduate

**COMX 575 - Seminar: Rhetoric & Environmental Controversy. 3 Credits.**

Offered intermittently. The study of how advocates use symbols to influence meaning and action in environmental controversies. Rhetorical theory is used to identify, analyze, and evaluate persuasive strategies and tactics. Level: Graduate

**COMX 591 - Special Topics. 1-9 Credits.**

(R-15) Offered intermittently. Experimental offerings of visiting professors, experimental offerings of new courses, or one-time offerings of current topics. Level: Graduate

**COMX 592 - Independent Study. 1-9 Credits.**

(R-9) Course material appropriate to the needs and objectives of the individual student. Level: Graduate

**COMX 594 - Topical Seminar. 1-2 Credits.**

(R-6) Offered autumn and spring. Restricted to graduate students in Communication Studies. Professional development seminar. Offered credit/no-credit only Level: Graduate

**COMX 597 - Communication Studies Teaching Methods. 2 Credits.**

(R-8) Offered autumn and spring. Restricted to graduate students in Communication Studies. This course cover teaching methods in Communication Studies. Offered CR/NCR only. Level: Graduate

**COMX 599 - Thesis/Professional Paper. 1-9 Credits.**

(R-9) Offered every term. Preparation of a thesis, manuscript, or professional paper based on research for presentation and/or publication. Level: Graduate

## Communicative Sciences & Disorders (CSD)

**CSD 110 - Foundations of Clinical Practice in Speech-Language Pathology & Audiology. 3 Credits.**

Offered intermittently. Introduction to the scientific study of human communication and its disorders and to the professions of Speech-Language Pathology and Audiology. Overview of biological systems of speech, language, and hearing and the nature and treatment of communication disorders.

**CSD 191 - Special Topics. 1-6 Credits.**

(R-6) Experimental offerings of visiting professors, experimental offerings of new courses, or one-time offerings of current topics.

**CSD 194 - Seminar. 1-6 Credits.**

(R-6) Offered intermittently. A review and discussion of current research. Topics vary.

**CSD 205 - Clinical Application and Observations in Speech-Language Pathology and Audiology. 2 Credits.**

Students will learn roles and responsibilities of being a speech-language pathologist and audiologist HIPAA regulations, and health and safety guidelines. This course is designed as an orientation and observation class which will prepare you for your future work in the area of Communicative Disorders.

**CSD 210 - Speech & Language Development. 3 Credits.**

Offered intermittently. Restricted to students with at least sophomore standing. Topics include typical speech and language development, phonology, semantic, morphological, syntax, and pragmatics, along with individual differences, second language acquisition and literacy.

**CSD 215 - Signed Communication for Health and Education Professionals: Foundational Skills II. 3 Credits.**

This course introduces the fundamentals of Signed Communication used by the Deaf Community, including basic vocabulary, syntax, fingerspelling, and grammatical non-manual signals. It also focuses on basic expressive and receptive communicative competence. In addition, this course provides a survey of various issues surrounding Signed Communication and the Deaf community.

**CSD 221N - Fundamentals of Acoustics. 3 Credits.**

Offered intermittently. Provides students with a basic and working knowledge of acoustics and the physics of sound. Provides the basis for measurement and description of speech stimuli. Direct application to Speech Hearing and Language intervention as well as application into communicative sciences.

Gen Ed Attributes: Natural Science

**CSD 222 - Introduction to Sound and Hearing. 3 Credits.**

Offered intermittently. Introduction to the principles of sound from the perspective of production and perception; the physical properties of sound (pitch, intensity, duration/phase) and their perceptual correlates and differential sensitivities; the concepts of dB and threshold measurements; and the anatomy and physiology of the hearing (and vestibular) system.

Gen Ed Attributes: Natural Science

**CSD 265 - Developmental Speech and Language Disorders and Treatment. 3 Credits.**

Offered intermittently. Prereq., CSD 210. Nature of developmental speech and language disorders and basic understanding of principles underlying assessment and treatment of these disorders.

**CSD 292 - Independent Study. 1-6 Credits.**

(R-6) Course material appropriate to the needs and objectives of the individual student.

**CSD 301 - Foundations of Scientific Writing. 3 Credits.**

Offered intermittently. Prereq., WRIT 101 or WRIT 201. Students learn to use library resources and research databases/search engines to develop research questions and explore a scientific topic. Students develop their topic, develop scientific questions, write summaries of peer-reviewed scientific journal articles, and develop an annotated bibliography. Students orally present their findings at the end of the semester and engage in self-reflection about their writing.

Gen Ed Attributes: Writing Across the Curriculum

**CSD 305 - Clinical Applications of Language Science. 3 Credits.**

This course provides a comprehensive introduction to language as a science and the application of language science in clinical contexts. Students will investigate the domains of human language including phonetics, phonology, morphology, syntax, semantics, and pragmatics. Each language domain will be analyzed in clinical applications and contexts. This course also explores how linguistic structures are situated within psychological and social contexts, examining how psychological or social breakdowns can result in language disorders or processing difficulties.

**CSD 320 - Clinical Phonetics. 3 Credits.**

Offered intermittently. Restricted to students with at least junior standing. Exploration of the sounds and sound structure of American English and some of its dialects. Introduction to the theory and practice of phonetic and phonological analysis and trained in the transcription of speech into the International Phonetic Alphabet.

**CSD 322 - Diagnostic Audiology. 3 Credits.**

Prereq., CSD 222. Introduction to the principles of acoustics as a basis for understanding hearing assessment. Development of the ability to interpret audiograms as well as the results from a hearing evaluation. Includes pure tone audiometry, speech audiometry, acoustic immittance, and acoustic reflex testing, as well as electrophysiological tests. Hearing screening procedures are also included.

**CSD 330 - Anatomy and Physiology of the Speech and Swallowing Mechanism. 3 Credits.**

Offered intermittently. Introduction to anatomy and physiology of the speech and swallowing mechanisms including the anatomical orientation and embryological development, the breathing mechanism, structures of phonation and swallowing, articulators, and the nervous system.

**CSD 331 - Neurological Bases of Communication and Swallowing. 3 Credits.**

Offered intermittently. Prereq., CSD 330. Focused study on the anatomy of the nervous system and how the nervous system supports behaviors inherent to communication and swallowing. Students will be introduced to anatomical terms, structures, and functions. Clinical implications will be linked to class with a focus across the lifespan. Level: Undergraduate.

**CSD 345 - Developmental Communication Disorders. 3 Credits.**

Offered spring. Prereq., CSD 210. Nature of developmental speech and language disorders and basic understanding of principles underlying assessment and treatment of these disorders.

**CSD 365 - Acquired Communication and Swallowing Disorders. 3 Credits.**

Offered intermittently. Prereq., CSD 210. Restricted to students with at least junior standing. Identification, assessment, and intervention for a variety of acquired speech, language, cognitive, and swallowing disorders. Introduction to potential psychosocial impacts and educational concerns, utilizing the WHO-ICF, multicultural considerations, and incorporation of family members. Introduction to clinical documentation for acquired disorders.

**CSD 392 - Independent Study. 1-6 Credits.**

(R-6) Offered every term. Course material appropriate to the needs and objectives of the individual student.

**CSD 396 - Inclusive Campus-Based Practices for Neurodiverse Persons/Service Learning. 2 Credits.**

(R-6) Offered intermittently. Prereq., junior or senior standing, and/or consent of instructor, and application required. This course educates students about neurodiversity in adults. The didactic portion addresses topics aligned with the specialized consideration for people with autism and neurodiversity. The service-learning portion allows direct mentorship and support to neurodiverse adults on and off campus.

**CSD 405 - The Clinical Process. 3 Credits.**

Offered intermittently. Prereq., CSD 210, CSD 222, CSD 320, and CSD 365. The underlying principles of clinical methods and practice including: the observation of human behavior and clinical processes, assessment of communication differences, clinical management of these differences, delays and disorders, behavior, interviewing/counseling, lesson planning, and writing skills. Level: Undergraduate

**CSD 420 - Speech Science. 3 Credits.**

Offered intermittently. Prereq., CSD 222, CSD 320, and CSD 330. Physiologic, neurologic, and acoustic aspects of human communication, theoretical framework for speech science, and principles of acoustics applied to speech language pathology across the lifespan. Level: Undergraduate

**CSD 430 - Senior Capstone. 3 Credits.**

Offered autumn. Prereq., WRIT 101. Restricted to students with senior standing. Part one of a two course sequence where the student completes an independent project. Students will prepare a literature review, and ethics application, and a proposal in preparation for a major research project of their design. Level: Undergraduate  
Gen Ed Attributes: Writing in the Disciplines

**CSD 445 - Social Communication Skills, Behavior, and Neurodiversity. 3 Credits.**

Offered intermittently. Restricted to students with at least junior standing. This course explores and integrates social aspects of communication (e.g., behavioral and social understanding/competence), communication accommodations, adaptations, and strategies for functional communication and independent living skills. Topics include foundational information on autism as well as assessment and treatment using evidence-based practices for autism spectrum disorder and related disorders. Co-convened with SLP 545. Level: Undergraduate

**CSD 450 - Rehabilitative Audiology. 3 Credits.**

Offered intermittently. Prereq., CSD 210 and CSD 222. Fundamental skills in speech reading and knowledge of various types of hearing aids, implantable devices, and the tools necessary to assess and implement auditory training. Management of the clients across the lifespan with hearing impairment including psycho-social development and educational intervention. Level: Undergraduate

**CSD 461 - Advanced Methods for Speech-Language Pathology/Audiology Assistants. 1-3 Credits.**

Offered intermittently. Prereq., or coreq., CSD 361. This course is intended to provide students studying to become speech-language pathology/Audiology Assistants with advanced clinical methodologies associated with individuals with a range of communication abilities. The focus of the course is on the advanced role of the SLP/Audiology-Assistants in clinical practice and follows the guidelines and scope of practice for SLP/Audiology-Assistants established by the American Speech-Language-Hearing Association. Level: Undergraduate

**CSD 480 - Multicultural Issues. 3 Credits.**

Offered intermittently. Prereq., CSD 210, CSD 222, and CSD 320. Topics include: dynamics of community and culture; strategies to communicate with people from a variety of backgrounds; learning English as a second language; phonological and linguistic analysis of differences between Standard English speakers and culturally diverse populations and international differences in service delivery. Level: Undergraduate-Graduate

**CSD 480X - Multicultural Issues. 3 Credits.**

Offered intermittently. Prereq., CSD 210, CSD 222, and CSD 320. Topics include: dynamics of community and culture; strategies to communicate with people from a variety of backgrounds; learning English as a second language; phonological and linguistic analysis of differences between Standard English speakers and culturally diverse populations and international differences in service delivery. Level: Undergraduate-Graduate

**CSD 490 - Research. 1-3 Credits.**

(R-6) Independent research under the direction of a faculty member. Level: Undergraduate

**CSD 491 - Special Topics. 1-3 Credits.**

(R-6) Offerings of visiting professors, experimental offerings of new courses, or one-time offerings of current topics. Level: Undergraduate-Graduate

**CSD 492 - Independent Study. 1-6 Credits.**

(R-12) Course material appropriate to the needs and objectives of the individual student. Level: Undergraduate-Graduate

**CSD 494 - Seminar/Workshop. 1-6 Credits.**

(R-12) A review and discussion of current research. Topics vary.



**CSD 495 - Practicum. 1-3 Credits.**

(R-5) A maximum of 5 credits of clinical practicum may count toward graduation. Allows the advanced student an opportunity to pursue independent or small group clinical practicum. Students will be directly supervised by a certified speech and language pathologist or audiologist. Level: Undergraduate

**CSD 498 - Internship. 1-4 Credits.**

(R-6) Extended classroom experience that provides practical application of classroom learning during placements off campus. Prior approval must be obtained from the faculty supervisor. A maximum of 6 credits of Internship (198, 298, 398, 498) may count toward graduation.

## Community Health (CHTH)

**CHTH 292 - Independent Study. 1-6 Credits.**

(R-6) Course material appropriate to the needs and objectives of the individual student.

**CHTH 355 - Theory and Practice of Community Health Education. 3 Credits.**

Prereq., PUBH 101S. History, philosophy, and theory related to community health education and health promotion. Includes the application of program development principles and health promotion strategies to community health programs.

**CHTH 414 - Health and Culture: A Global Perspective. 3 Credits.**

This course will provide students with an interdisciplinary perspective on global health. Students will assess health beliefs, health-related behavior, sickness distribution, treatment and experience in a range of socio-cultural contexts. There is an emphasis on applied research in health promotion and disease prevention programs. Level: Undergraduate

**CHTH 440 - Principles of Epidemiology. 3 Credits.**

Epidemiology is the basic science of public health. Specifically, epidemiology is the study of the distribution and determinants of disease and of health in human populations as well as the application of epidemiologic methods to promote health. This course is designed to introduce undergraduate students to the foundational principles and methods of epidemiology. Topics covered in this course include the basic principles of epidemiology, causality, ethics in epidemiologic research, measures of disease frequency and excess risk, and epidemiologic study designs. Students will develop skills to interpret and critically evaluate epidemiologic information from both media sources and published public health reports. Level: Undergraduate

**CHTH 445 - Program Planning in Community Health. 3 Credits.**

Prereq., CHTH 355. Restricted to students with at least junior standing. Overview of the issues, approaches, and techniques community health educators and professionals utilize in planning and implementing programs to assist communities in improving health status and reducing risky behaviors and their determinants. Level: Undergraduate-Graduate

**CHTH 490 - Undergraduate Research. 1-3 Credits.**

(R-6) Directed individual research and study appropriate to the background and objectives of the student. Level: Undergraduate

**CHTH 491 - Special Topics. 1-6 Credits.**

(R-6) Experimental offerings of visiting professors, experimental offerings of new courses, or one-time offerings of current topics. Level: Undergraduate-Graduate

**CHTH 492 - Independent Study. 1-3 Credits.**

(R-6) Course material appropriate to the needs and objectives of the individual student. Level: Undergraduate

**CHTH 494 - Seminar. 1-6 Credits.**

(R-6) A review and discussion of current research. Topics vary. Level: Undergraduate-Graduate

**CHTH 498 - Internship. 1-6 Credits.**

(R-6) Prereq., CHTH 355. Restricted to students with at least junior standing. Extended classroom experience that provides practical application of classroom learning during placements off campus. Prior approval must be obtained from the faculty supervisor. A maximum of 6 credits of Internship (198, 298, 398, 498) may count toward graduation.

**CHTH 514 - Health and Culture. 3 Credits.**

This course will provide students with an interdisciplinary perspective on global health. Students will assess health beliefs, health-related behavior, sickness distribution, treatment and experience in a range of socio-cultural contexts. There is an emphasis on applied research in health promotion and disease prevention programs. Level: Graduate

**CHTH 591 - Special Topics. 1-6 Credits.**

(R-6) Experimental offerings of visiting professors, experimental offerings of new courses, or one-time offerings of current topics. Level: Graduate

## Computer Applications (CAPP)

**CAPP 120 - Introduction to Computers. 3 Credits.**

Offered autumn and spring. Offered at Missoula College. Introduction to computer terminology, hardware, and software, including wire/wireless communications and multimedia devices. Students utilize word processing, spread sheet, database, and presentation applications to create projects common to business and industry in a networked computing environment. Internet research, email usage, and keyboarding proficiency are integrated.

**CAPP 154 - MS Word. 3 Credits.**

Offered autumn and spring. Offered at Missoula College. Preparation of business forms, correspondence, mail merges, columnar projects, and reports using up-to-date software. Business related application projects, graphics, and printer operation are included.

**CAPP 156 - MS Excel. 3 Credits.**

Offered autumn and spring. Offered at Missoula College. Prereq., CAPP 120. Emphasis on the use of the spreadsheet, graphics, and databases to solve quantitative business problems. Includes projects relating to data and graphs/charts.

**CAPP 171 - Communicating via Computers. 3 Credits.**

Offered intermittently. Prereq., previous computer experience or consent of instr. The use of the computer for information presentation and communication; emphasis placed on the use of electronic resources for the access, management, and presentation of information. Students taking CS classes with computer programming components should expect to use additional computer lab time outside of class.

**CAPP 254 - Advanced MS Word. 3 Credits.**

Offered spring. Offered at Missoula College. Prereq., CAPP 154 or consent of instructor. Analysis of the concepts of advanced word processing document production underlying mastery of the software. Business-related application projects utilizing critical thinking are included. A speed and timing component to increase skills essential for employment will be a portion of this course.

**CAPP 292 - Independent Study. 1-6 Credits.**

Offered at Missoula College. Course material appropriate to the needs and objectives of the individual student.



# Computer Science/Programming (CSCI)

## **CSCI 105 - Computer Fluency. 3 Credits.**

Offered autumn and spring. Offered at Missoula College. Introduces the skills and concepts of information technology, both from practical and a more theoretical point of view. During lectures and interactive computer labs, students will explore a wide range of digital and information technologies, including common PC applications, networking, databases, privacy, and security.

## **CSCI 106 - Careers in Computer Science. 1 Credit.**

Offered autumn. Exploration of various careers available in the general area of Computer Science. Includes discussion of strategies for success in the major. Computer Science faculty members also will discuss possible undergraduate research opportunities and motivation for graduate education.

## **CSCI 113 - Programming with C++ I. 3 Credits.**

Offered spring. Offered at Missoula College. M 090 or ALEKS score  $\geq$  or M01-Maplesoft Arithmetic score  $\geq$  9 recommended prior to taking course. Object oriented programming using C++. Implementation of structured programming concepts along with construction of classes to create data types for defining objects.

## **CSCI 150 - Introduction to Computer Science. 3 Credits.**

Offered autumn and spring. This course covers basic programming concepts such as variables, data types, iteration, flow of control, input/output, functions, and objects. The course will also cover programming ideas such as libraries, files, modularity, where to turn to for help, and debugging. Students will learn about the role computation can play in solving problems by writing programs to address practical problems. No prior programming experience is expected. Includes two hours of independent lab per week.

## **CSCI 151 - Interdisciplinary Computer Science I. 3 Credits.**

Offered autumn and spring. Offered on both Mountain Campus and at Missoula College. Prereq., CSCI 150. This course will introduce students to fundamental computer science concepts including functions, libraries and APIs, recursion, data types, optimization, searching and sorting, all while using a high level structured programming language.

## **CSCI 152 - Interdisciplinary Computer Science II. 3 Credits.**

Offered autumn and spring. Offered at both Mountain Campus and Missoula College. Prereq., CSCI 151 and M 162 or M 171 or M 172 or M 273. Prereq. or coreq., M 151. Survey of computer science topics including recursion, basic data structures, algorithms, computational theory, computing architecture, and modern software development practices.

## **CSCI 172 - Intro to Computer Modeling. 3 Credits.**

Offered fall and spring. Offered on the Mountain Campus and at Missoula College. Problem solving and data modeling using computer productivity software. Emphasis using spreadsheets and database for data analysis.

## **CSCI 181 - Web Design and Programming. 3 Credits.**

Offered spring. Students will learn how to critically analyze the usability of web sites and create their own by understanding and applying universal principles of design. Programming and other key concepts covered include HTML, CSS, JavaScript, and Web Graphics. Students will complete many different types of Web projects throughout the semester, culminating in an online portfolio used to showcase work completed in this class and others. No prior programming experience is expected.

## **CSCI 191 - Special Topics. 1-6 Credits.**

(R-12) Offered intermittently. Experimental offerings of visiting professors, experimental offerings of new courses, or one-time offerings of current topics.

## **CSCI 192 - Independent Study. 1-6 Credits.**

(R-6) Offered intermittently. Course material appropriate to the needs and objectives of the individual student.

## **CSCI 205 - Programming with C/C++. 3 Credits.**

Offered intermittently. Prereq., CSCI 152. Concepts and principles of programming languages with an emphasis on C, C++, and object-oriented programming. Syntax and semantics of object-oriented languages. Principles and implementation of memory allocation and deallocation, type-checking, scope, polymorphism, inheritance.

## **CSCI 215E - Social & Ethical Issues in CS. 3 Credits.**

Offered autumn and spring. Offered at Missoula College. Prereq., WRIT 101. Exploration of ethical issues in the field of computing. Skills needed to identify and analyze various ethical concerns. Standard ethical concepts and theories, methods of ethical analysis. Strong emphasis on practical application of the ethical process.  
Gen Ed Attributes: Ethical & Human Values, Writing Across the Curriculum

## **CSCI 221 - System Analysis and Design. 3 Credits.**

Offered spring. Offered at Missoula College. Analysis of the system development life cycle. Emphasis on planning, analyzing, designing, implementing and supporting information systems to meet business requirements. Covers feasibility studies, time and cost estimates, modeling tools, design tools, implementation and support strategies. A simulated business design project will be developed.

## **CSCI 232 - Intermediate Data Structures and Algorithms. 4 Credits.**

Offered autumn and spring. Prereq., CSCI 152 with a minimum grade of B-. Abstract data types, analysis of algorithms, stacks, queues, lists, recursion, trees, hashing, graphs, and applications of data structures in algorithm development. Course is offered in the Java programming language.

## **CSCI 240 - Databases and SQL. 3 Credits.**

Offered autumn. Offered at Missoula College. Relational database design including: requirements analysis, data structure, entity relationships, normalization, relational algebra and integrity. Physical implementation focuses on data storage, retrieval and modification, concurrency, optimization, security, SQL, and XML.

## **CSCI 258 - Web Application Development. 3 Credits.**

Offered autumn. Prereq., CSCI 152. This class is designed to give students introductory exposure to client-server web development. Students will be exposed to modern web/software development principles, practices and systems.

## **CSCI 290 - Undergraduate Research. 1-6 Credits.**

(R-10) Independent research under the direction of a faculty member.

## **CSCI 291 - Special Topics. 1-6 Credits.**

(R-12) Offered intermittently. Experimental offerings of visiting professors, experimental offerings of new courses, or one-time offerings of current topics.

## **CSCI 292 - Independent Study. 1-6 Credits.**

(R-6) Offered intermittently. Course material appropriate to the needs and objectives of the individual student.

**CSCI 315E - Computers, Ethics, and Society. 3 Credits.**

Offered autumn and spring. Prereq., WRIT 101. Ethical problems that computer scientists face. The codes of ethics of professional computing societies. The social implications of computers, computing, and other digital technologies.

Gen Ed Attributes: Ethical & Human Values, Writing in the Disciplines

**CSCI 322 - Advanced Web Application Development. 3 Credits.**

Offered spring. Prereq., CSCI 258. This course imparts advanced web development and associated practical skills, including contemporary web architectures, cloud deployment, database migrations, custom front end interfaces, high performance computing integration, web systems debugging, and group development.

**CSCI 323 - Software Science. 3 Credits.**

Offered fall. Prereq., CSCI 152. Study, implementation, and assessment of software processes, techniques, methods, and CASE tools. Project management and cost estimation techniques will be examined. A group project may be required.

**CSCI 332 - Advanced Data Structures and Algorithms. 3 Credits.**

Offered autumn. Prereq., CSCI 232 and M 225. Algorithm design, analysis, and correctness. Covers algorithm design techniques such as greedy, divide and conquer, and dynamic programming, and advanced graph algorithms. Introduces the classes P and NP.

**CSCI 340 - Database Design. 3 Credits.**

Offered fall. Prereq., CSCI 232. Fundamentals of data modeling, the relational mode, normal forms, file organization, index structures and SQL. Major project involving the design and implementation of a relational database.

**CSCI 358 - Mobile Application Development. 3 Credits.**

Offered fall. Prereq., CSCI 152 and CSCI 258. This course introduces the process of developing mobile applications. It is well suited to students with experience writing programs using an object-oriented programming language such as Java and who have experience working with basic data structures. This course will focus on creating user interfaces and program logic for a variety of different applications.

**CSCI 361 - Computer Architecture. 3 Credits.**

Offered spring. Prereq., CSCI 152. Bottom up creation of a complete computer system. Beginning with logic gates, ALU, CPU, and memory hierarchy. Instruction set design and hardware control. Assembly language and creation of an assembler. Virtual machines and implementation of a virtual machine. High level languages and basic compiler construction.

**CSCI 370 - Sports Analytics. 3 Credits.**

Offered spring. Restricted to students with at least junior standing. This course will discuss how technology is affecting sports and the ethical consequences. Students will be introduced to several computer science topics that are used to analyze all aspects of the sports industry, including performance, safety, game strategy, and the fan experience.

**CSCI 390 - Research. 1-6 Credits.**

(R-6) Offered intermittently. Directed individual research and study appropriate to the background and objectives of the student.

**CSCI 391 - Special Topics. 1-6 Credits.**

(R-12) Offered intermittently. Restricted to students with at least junior standing. Experimental offerings of visiting professors, experimental offerings of new courses, or one-time offerings of current topics.

**CSCI 392 - Independent Study. 1-6 Credits.**

(R-6) Offered intermittently. Course material appropriate to the needs and objectives of the individual student.

**CSCI 394 - Seminar. 1-6 Credits.**

(R-6) Offered intermittently. A review and discussion of current research. Topics vary.

**CSCI 398 - Internship. 1-6 Credits.**

(R-6) Offered autumn and spring. Extended classroom experience that provides practical application of classroom learning during placements off campus. Prior approval must be obtained from the faculty supervisor. A maximum of 6 credits of Internship (198, 298, 398, 498) may count toward graduation. Graded CR/NCR only.

**CSCI 406 - Careers in Computer Science. 1 Credit.**

Prereq., CSCI 426. This course should be taken in the student's final year of the degree. This course is designed to equip graduating computer science students with the essential skills and strategies to successfully navigate the job market. It includes career development activities, interview preparation, and professional guidance. For those interested in continuing their education, this course also provides insights into preparing strong graduate school applications. A comprehensive program assessment exam will also be administered in this course. Level: Undergraduate

**CSCI 423 - Advanced Software Engineering. 3 Credits.**

Offered spring. Prereq., CSCI 258 and CSCI 332. This course focuses on both foundational and contemporary practices of software engineering with a special emphasis on design patterns. It blends theory with hands-on practice, equipping students with a comprehensive understanding of advanced software design and development methodologies. As software systems continue to evolve, mastering these time-tested techniques becomes essential to create efficient, scalable, and maintainable software. Beyond design patterns, this course delves into object-oriented, the Unified Modeling Language (UML), software testing, collaborative software engineering, and a host of other software engineering principles. Co-convenes with CSCI 523. Level: Undergraduate

**CSCI 426 - Software Design & Development I. 3 Credits.**

Offered autumn. Prereq., CSCI 322, CSCI 323, and CSCI 340. Restricted to students with senior standing. Class represents first in senior capstone experience. Students will work in groups to design and prototype real-world software. Focus will be on client interaction, software engineering methodologies, project management tools, requirements specification and analysis, design, user feedback, documentation and presentation. Level: Undergraduate

**CSCI 427 - Software Design and Development II. 3 Credits.**

Offered spring. Prereq., CSCI 426. Design and implementation of a major software project in a group setting, with required documentation, presentation, installation, and approval by the instructor. Level: Undergraduate

**CSCI 432 - Advanced Algorithm Topics. 3 Credits.**

Offered spring. Prereq., B- or better in CSCI 332. Advanced algorithm and data structure concepts, including theory, approximation algorithms, randomized algorithms, parallel algorithms, streaming algorithms, linear programming. Co-Convenes with CSCI 532. Level: Undergraduate

**CSCI 443 - User Interface Design. 3 Credits.**

Offered intermittently. Prereq., CSCI 232. Introduction to usability and key concepts of human behavior. Focus on the process of user-centered design, including requirements specification, prototyping, and methods of evaluation. Incorporation of regular design critiques of classmates' work, and emphasis on both oral and written communication skills. Co-convenes with CSCI 543. Level: Undergraduate

**CSCI 444 - Data Visualization. 3 Credits.**

Offered fall. Restricted to students with at least junior status. Programming experience is necessary for success in this course. This course emphasizes the practice of data visualization, compelling students to identify and master tools to produce visualizations of data having relational, raster, vector, geographical, networked, mesh based, spectral, or phase space properties. The unique challenges of each data type will be covered. The emphasis on production is coupled to a framework for critique, allowing students to differentiate between high and low qualities visualizations. Level: Undergraduate-Graduate

**CSCI 447 - Machine Learning. 3 Credits.**

Offered autumn. Prereq., CSCI 232. Introduction to the framework of learning from examples, various learning algorithms such as neural networks, and generic learning principles such as inductive bias, Occam's Razor, and data mining. Co-convenes with CSCI 547. Level: Undergraduate

**CSCI 451 - Computational Biology. 3 Credits.**

Offered autumn. Designed for attendance by both computer scientists and biologists. The course will explore the interdisciplinary nature at the juncture of the two fields. Students will be introduced to bioinformatics (emphasis: computational genomics), with exposure to fundamental problems, algorithms, and tools in the field. This includes a basic introduction to genomics, along with in-depth coverage of algorithms and methods relevant to modern computational genomics, including: biological sequence alignment, sequence database homology search, and phylogeny inference. The programming expectations are limited for a 400-level computer science course, but at least one semester of a programming-intensive course is required. Co-convenes with CSCI 558. Level: Undergraduate

**CSCI 455 - Embedded Systems. 3 Credits.**

Offered spring. Prereq., CSCI 232. Students are expected to have knowledge of computer architecture and operating systems and an experience with at least one programming language, such as Python or C. This course is designed to bring students to the design, implement, and evaluate embedded systems. Such systems usually include four main components: data collection, data processing, data communication, and adaptive control. In that, the data collection includes hardware and software to control embedded sensors to "sense" the information and report to host computer. Data processing includes a set of methods to remove noises from the raw data and only maintain the information of interested. Data communication includes hardware and software to exchange data between embedded controllers, sensors, and host machine (e.g., Bluetooth or Wi-Fi). Finally, yet importantly, adaptive control includes a set of algorithms provides the "act" to the system according to the input data. In this class, students will have opportunity to walk through all the components mentioned earlier and have a capability of design and implement a small cyber-physical project by the end of the semester. Level: Undergraduate

**CSCI 460 - Operating Systems. 3 Credits.**

Offered spring. Prereq., CSCI 232. Operating system design principles. Processes, threads, synchronization, deadlock, memory management, file management and file systems, protection, and security, comparison of commonly used existing operating systems, writing programs that make use of operating system services. It is recommended, but not required, that the student also attend Programming Languages (in order to be prepared to write C programs) and Architecture (in order to understand interactions between the operating system and processor hardware) prior to attending this course. Level: Undergraduate-Graduate

**CSCI 461 - Internet of Things. 3 Credits.**

Prereq., CSCI 232. Students are expected to have experience with at least one programming language prior to registration. Wireless and mobile systems have become ubiquitous. They are playing a significant role in our everyday life nowadays. However, the increasing demand for wireless connectivity and the emergence of new areas such as the Internet of Things present new research challenges. This course will introduce the spectrum of research on the Internet of Things (IoT). The lectures cover a range of techniques in sensing, computing, communication, and wireless networking and connect them to various applications in analytics, localization, cyber-physical systems, mobile health, security, and wearables. Co-convenes with CSCI 561. Level: Undergraduate

**CSCI 466 - Networks. 3 Credits.**

Offered intermittently. Prereq., CSCI 232. Concepts and practice of computer networking, network protocol layers, switching, routing, flow, and congestion control. Network programming. Level: Undergraduate-Graduate

**CSCI 476 - Computer Security. 3 Credits.**

Offered intermittently. Prereq., M 225. Introduction to computer security. Understand the basis of cryptography and secure systems, as well as exploits used to penetrate such systems. Level: Undergraduate

**CSCI 477 - Simulation. 3 Credits.**

Offered spring. Prereq., M 172 or CSCI 151. Matrix languages. ODE solving; Euler-Richardson, Runge-Kutta, PDE solving; finite differences, finite elements, multi-grid techniques. Discrete methods for solution, renormalization group method, critical phenomena. Emphasis on presentation of results and interactive programs. Co-convenes with CSCI 577. Level: Undergraduate

**CSCI 490 - Research. 1-6 Credits.**

(R-6) Offered intermittently. Directed individual research and study appropriate to the background and objectives of the student. Level: Undergraduate-Graduate

**CSCI 491 - Special Topics. 1-6 Credits.**

(R-18) Offered intermittently. Experimental offerings of visiting professors, experimental offerings of new courses, or one-time offerings of current topics. Level: Undergraduate

**CSCI 492 - Independent Study. 1-6 Credits.**

(R-6) Offered intermittently. Course material appropriate to the needs and objectives of the individual student. Level: Undergraduate-Graduate

**CSCI 494 - Seminar. 1-6 Credits.**

(R-6) Offered intermittently. A review and discussion of current research. Topics vary. Level: Undergraduate-Graduate

**CSCI 498 - Internship. 1-3 Credits.**

(R-3) Offered autumn and spring. Extended classroom experience that provides practical application of classroom learning during placements off campus. Prior approval must be obtained from the faculty supervisor. A maximum of 6 credits of Internship (198, 298, 398, 498) may count toward graduation. Graded CR/NCR only. Level: Undergraduate-Graduate

**CSCI 499 - Senior Thesis/Capstone. 1-6 Credits.**

(R-6) Offered every term. Senior thesis for computer science majors and/or Watkins scholars. Level: Undergraduate  
Gen Ed Attributes: Writing in the Disciplines

**CSCI 501 - Graduate Research Methods. 3 Credits.**

Offered autumn. Development of the skills required for effective research in Computer Science, including literature review, research proposal development, oral and visual presentation techniques. Included is mandatory attendance of a colloquium featuring presentations from UM faculty and students as well as external researchers from academics and industry. Level: Graduate

**CSCI 523 - Advanced Software Engineering. 3 Credits.**

This course focuses on both foundational and contemporary practices of software engineering with a special emphasis on design patterns. It blends theory with hands-on practice, equipping students with a comprehensive understanding of advanced software design and development methodologies. As software systems continue to evolve, mastering these time-tested techniques becomes essential to create efficient, scalable, and maintainable software. Beyond design patterns, this course delves into object-orientation, the Unified Modeling Language (UML), software testing, collaborative software engineering, and a host of other software engineering principles. Co-convenes with CSCI 423. Level: Graduate

**CSCI 532 - Advanced Algorithm Topics. 3 Credits.**

Offered spring. Advanced algorithm and data structure concepts, including theory, approximation algorithms, randomized algorithms, parallel algorithms, streaming algorithms, linear programming. Co-Convenes with CSCI 432. Level: Graduate

**CSCI 543 - Human-Computer Interaction. 3 Credits.**

Offered intermittently. Principles of good design for interactive systems and web-based applications. User-centered design methodology including requirements specification, low and high-fidelity prototyping, heuristic evaluation, cognitive walkthrough, predictive modeling, and usability testing. Advanced HCI research project. Co-convenes with CSCI 443. Level: Graduate

**CSCI 547 - Machine Learning. 3 Credits.**

Offered autumn. Fundamentals of machine learning including neural networks, decision trees, Bayesian learning, instance-based learning, and genetic algorithms; inductive bias, Occam's razor, and learning theory; data mining; software agents. Co-convenes with CSCI 447. Level: Graduate

**CSCI 556 - Embedded Systems. 3 Credits.**

Offered spring. Students wanting to register for this course are expected to have knowledge of computer architecture and operating systems and have experience with at least one programming language, such as Python or C. This course is designed to bring students to the design, implementation, and evaluation of embedded systems. Such systems usually include four main components: data collection, data processing, data communication, and adaptive control. Data collection includes hardware and software to control embedded sensors to "sense" information and report to a host computer. Data processing includes a set of methods to remove noise from the raw data and only maintain the information of interest. Data communication includes hardware and software to exchange data between embedded controllers, sensors, and a host machine (e.g., Bluetooth or Wi-Fi). Finally, yet importantly, adaptive control includes a set of algorithms providing the "act" to the system according to the input data. In this class, students will have the opportunity to walk through all of these components and will design and implement a small cyber-physical project by the end of the semester. Co-convenes with CSCI 455. Level: Graduate

**CSCI 557 - Deep Learning. 3 Credits.**

Offered spring. Prereq., CSCI 547. This course is a survey of state-of-the-art methods in deep learning. Covered topics are expected to change, but will typically include convolutional and recurrent neural networks, transformers, automatic differentiation, uncertainty quantification, generative models, deep reinforcement learning, training parallelism, model distillation, and interesting applications of all of the above to scientific problems. Students will read primary literature, present it to their peers, and develop computational implementations. Level: Graduate

**CSCI 558 - Intro to Bioinformatics. 3 Credits.**

Offered autumn. Designed for attendance by both computer scientists and biologists. The course will explore the interdisciplinary nature at the juncture of the two fields. Students will be introduced to bioinformatics (emphasis: computational genomics), with exposure to fundamental problems, algorithms, and tools in the field. This includes a basic introduction to genomics, along with in-depth coverage of algorithms and methods relevant to modern computational genomics, including: biological sequence alignment, sequence database homology search, and phylogeny inference. The programming expectations are limited for a 500-level computer science course, but at least one semester of a programming-intensive course is required. A substantial project is a key component of the course. Level: Graduate

**CSCI 561 - Internet of Things. 3 Credits.**

Students are expected to have experience with at least one programming language prior to registration. Wireless and mobile systems have become ubiquitous. They are playing a significant role in our everyday life nowadays. However, the increasing demand for wireless connectivity and the emergence of new areas such as the Internet of Things present new research challenges. This course will introduce the spectrum of research on the Internet of Things (IoT). The lectures cover a range of techniques in sensing, computing, communication, and wireless networking and connect them to various applications in analytics, localization, cyber-physical systems, mobile health, security, and wearables. Co-convenes with CSCI 461. Level: Graduate

**CSCI 574 - Computer Security. 3 Credits.**

Offered intermittently. Understand and apply cryptosystems, penetration testing, and fundamental exploits. Level: Graduate.

**CSCI 577 - Simulation Modeling. 3 Credits.**

Offered spring. Matrix languages. ODE solving; Euler-Richardson, Runge-Kutta, PDE solving; finite differences, finite elements, multi-grid techniques. Discrete methods for solution, renormalization group method, critical phenomena. Emphasis on presentation of results and interactive programs. Conduct, document, and present graduate level research involving computer simulation methods. Co-convenes with CSCI 477. Level: Graduate

**CSCI 590 - Research. 1-6 Credits.**

(R-6) Offered intermittently. Directed individual research and study appropriate to the background and objectives of the student. Level: Graduate

**CSCI 591 - Special Topics. 1-6 Credits.**

(R-30) Offered intermittently. Experimental offerings of visiting professors, experimental offerings of new courses, or one-time offering of current topics. Level: Graduate

**CSCI 592 - Independent Study. 1-6 Credits.**

(R-6) Offered intermittently. Course material appropriate to the needs and objectives of the individual student. Level: Graduate



**CSCI 594 - Graduate Seminar. 1-6 Credits.**

(R-6) Offered intermittently. Seminar on current research topics in computer science. Level: Graduate

**CSCI 595 - Practicum. 1-6 Credits.**

(R-12) Offered intermittently. Supervised, practical experience in a professional setting relevant to the student's field of study. Level: Graduate

**CSCI 598 - Internship. 1-9 Credits.**

(R-9) Offered intermittently. Extended classroom experience that provides practical application of classroom learning during placements off campus. Prior approval must be obtained from the faculty supervisor. Level: Graduate

**CSCI 599 - Thesis/Professional Paper. 1-6 Credits.**

(R-40) Offered every term. Research for and preparation of the master's thesis or professional paper. Level: Graduate

## Construction Trades (CSTN)

**CSTN 105 - Introduction to Woodworking. 1 Credit.**

Offered at Missoula College. In this course, students will learn the foundational skills required to complete basic woodworking projects, including wood species identification and characteristics, appropriate use of essential shop tools, and shop safety. This course is a prerequisite for all higher-level woodworking offerings.

**CSTN 107 - Joinery. 1 Credit.**

(R-2) Prereq., CSTN 105. Building on foundational skills learned in CSTN 105 (Introduction to Woodworking), students will advance their skills in basic woodworking and learn additional methods of wood shaping and joinery to be able to complete more complex woodworking projects. Sample topics include lumber selection and preparation, glue-up techniques, mortise and tenon joints, dovetails, and wood finishing.

**CSTN 109 - Intermediate Woodworking. 1 Credit.**

(R-2) Prereq., CSTN 105 and CSTN 107. Students will learn and demonstrate more advanced woodworking skills through the completion of in-shop projects. Building on skills and techniques learned in CSTN 105 and CSTN 107, students will complete their own woodworking project from start to finish, from project design, material selection and estimating, wood selection and preparation, through final finishing. This course is intended to provide an opportunity for practice and refinement of advanced woodworking skills through actual project completion.

**CSTN 120 - Carpentry Basics & Rough-In Framing. 5 Credits.**

Offered autumn. Offered at Missoula College. Introduction to the carpentry trade, including history, career opportunities, and requirements. The course covers building materials, fasteners, adhesives, hand tools, and power tools. OSHA rules and regulations for a safe working place and procedures for compliance are covered. This course includes a two-credit imbedded lab. Students will also learn how to install windows and an exterior door.

**CSTN 122 - Beginning Carpentry Lab. 5 Credits.**

Offered at Missoula College. Lab to support CSTN 120.

**CSTN 142 - Interior & Exterior Finish Carpentry. 4 Credits.**

Offered spring. Offered at Missoula College. Study of various types of siding, gutter systems, roof venting requirements, and framing with metal studs. Installation of sheathing, exterior siding, roofing felt, shingles, insulation vapor barriers, and stairs on small building constructed in CSTN 120. Installation of wood and metal doors. Demonstration of materials, layout and installation of suspended ceilings. Selection and installation of countertops, base cabinets and wall cabinets. Window, door, floor, ceiling trim and drywall are installed in a small building. This course includes a one-credit imbedded lab.

**CSTN 143 - Intermediate Carpentry Lab. 4 Credits.**

Prereq., CSTN 120 and CSTN 122. Offered at Missoula College. Lab to accompany CSTN 142.

**CSTN 171 - Site Prep, Foundation, and Concrete Installation. 3 Credits.**

Offered autumn. Offered at Missoula College. Introduces the process of distance measurement as well as differential and trigonometric leveling for site layout. It covers the principles, equipment, and methods used to perform the site layout tasks that require making angular measurements. This course is designed to let students apply the blueprint reading skills learned so far to a practical exercise.

**CSTN 191 - Special Topics. 1-6 Credits.**

(R-6) Offered intermittently. Offered at Missoula College. Experimental offerings of visiting professors, experimental offerings of new courses, or one-time offerings of current topics.

**CSTN 192 - Independent Study. 1-6 Credits.**

(R-6) Offered intermittently. Offered at Missoula College. Course material appropriate to the needs and objectives of the individual student.

**CSTN 205 - Advanced Carpentry Lecture. 6 Credits.**

Offered spring. Offered at Missoula College. Prereq., CSTN 120, CSTN 122, CSTN 142, and CSTN 143. Study of the process for angular measurement, using transits, theodolites, electronic distance measuring devices, lasers, and trigonometric calculating to lay out foundations and determine elevations. Installation of standing seam, lap seam, and built-up roofing systems; concrete, vinyl, wooden, tile, and carpeted floors as well as radiant heating; paneling, wainscoting, movable partitions, curtain walls and fire-rated commercial wall construction. Advanced stair systems, including shop built and prefabricated stairs, balustrades, mitered risers and treads, and layout of elliptical fastening methods, and assembly techniques. Project planning, scheduling, estimating, and management skills included. This course includes a two-credit lab.

**CSTN 206 - Advanced Carpentry Lab. 2 Credits.**

Prereq., CSTN 120, CSTN 122, CSTN 142, and CSTN 143. Offered at Missoula College. Laboratory to accompany CSTN 205.

**CSTN 261 - Building Management. 4 Credits.**

Offered autumn. Offered at Missoula College. Prereq., CSTN 120, CSTN 122, CSTN 142, CSTN 143, and CSTN 171. Introduction to building business and project management including overhead costs, payroll costs, estimating and scheduling. Covers elements of payroll computation and preparation, payroll tax returns, information returns, and identification and compensation of independent contractors. Students are introduced to building cost estimating, and scheduling of subcontractors and building inspections. This course includes a one-credit imbedded lab.



**CSTN 278 - Applied Building Practices Lab. 6 Credits.**

Offered spring. Offered at Missoula College. Prereq., CSTN 120, CSTN 122, CSTN 142, CSTN 143. Students work on a variety of projects either at the college or in the community to practice and develop their skills as well as learn new skills. Knowing and following OSHA rules and regulations is emphasized. Students are expected to produce a professional quality product.

**CSTN 279 - Commercial Construction. 4 Credits.**

Offered autumn. Offered at Missoula College. Prereq., CSTN 120, CSTN 122, CSTN 142, CSTN 143, and CSTN 171. Study and develop skills in metal stud framing, commercial roofing systems, metal and masonry buildings, metal doors and door hardware, suspended ceilings, and fire rated commercial walls.

**CSTN 282 - Green Building Concept & Design I. 4 Credits.**

Offered autumn. Offered at Missoula College. This course takes a holistic approach to natural resource conservation and energy efficiency in the construction industry. From integrated design, building site selection and evaluation, through building design, material selection and efficiencies, passive heating and cooling, and construction techniques. Students design an energy efficient residence to be built by next years class.

**CSTN 283 - Green Building Concept & Design II. 3 Credits.**

Offered spring. Offered at Missoula College. Prereq., CSTN 282. A course fee of \$50.00 is required. This course builds on concepts learned in CSTN 282 Green Building Concepts and Design I. Students learn how to weatherize existing buildings and green remodeling and preservation techniques, design and build outdoor living spaces, and green landscaping practices. They learn how to document building for green rating for both NAHB Standards and LEED. They will conduct blower door tests and learn to test for and mitigate radon gas. Students will also refine the energy efficient residential plan they produced in Green Building Concepts and Design I.

**CSTN 286 - Advanced Wood Buildings. 3 Credits.**

Offered spring. Offered at Missoula College. Curriculum will provide current and future industry participants education in the history, benefits, sourcing, design, products, applications and techniques in modern and emerging wood and wood frame construction. It will further showcase the inherent qualities of responsibly sourced wood as a rapidly renewable resource in single family residential, low rise multifamily, mixed use commercial and high rise buildings and inform both current practitioners and future industry workforce members on the products, techniques and tools in wood building construction that provide the maximum economic and sustainable benefits.

**CSTN 291 - Special Topics. 3-6 Credits.**

(R-6) Offered at Missoula College. Experimental offerings of visiting professors, experimental offerings of new courses, or one-time offerings of current topics.

**CSTN 295 - Practicum. 1-3 Credits.**

(R-3) Offered spring. Offered at Missoula College. The course will be an elective for all students within the Sustainable Construction Technology Program and a requirement for any student pursuing a CTS in Green Building. The practicum will allow students to apply concepts learned in CSTN 282 Green Building and Design I, CSTN 283 Green Building and Design II, and CSTN 261 Building Management in a hands on project, research activity or other relevant designated undertaking.

**CSTN 298 - SCT Internship. 1-6 Credits.**

(R-6) Offered at Missoula College. Extended classroom experience which provides practical application of classroom learning. A maximum of 6 credits of Internship (198, 298, 398, 498) may count toward graduation.

**CSTN 299 - Capstone: Carpentry. 2 Credits.**

Offered autumn. Offered at Missoula College. Capstone laboratory to accompany CSTN 120, CSTN 122, CSTN 142, CSTN 143, CSTN 205, CSTN 206, and CSTN 261. This course provides hands-on experience in which the student applies the skills and knowledge presented in the Carpentry Program. The course will emphasize advanced application in the areas of exterior finishing and interior finishing, and other constructed topics.

## Counselor Education (COUN)

**COUN 195 - Special Topics. 1-6 Credits.**

(R-6) Experimental offerings of visiting professors, experimental offerings of new courses, or one-time offerings of current topics.

**COUN 242S - Intimate Relationships. 3 Credits.**

Offered autumn and spring semester. This course covers the fascinating, multi-faceted world of intimate relationships and explores the topic from empirical and theoretical perspectives. The examination of intimate relationships in this course will look at the subject through cultural, biological, social and developmental lenses and will explore specific topics such as attraction, communication, friendship, sexuality, love, conflict, power and violence, loss, social cognition, and repairing relationships.

Gen Ed Attributes: Social Sciences

**COUN 390 - Undergraduate Research. 1-3 Credits.**

(R-6) Independent research under the direction of a faculty member.

**COUN 475 - Forgiveness & Reconciliation. 3 Credits.**

Offered spring. Survey of the theory and practice of healing fractured relationships at the individual and community levels, treating historical and personal issues from philosophical, psychological and religious perspectives drawn from several diverse cultures. Level: Undergraduate-Graduate

**COUN 491 - Special Topics. 1-9 Credits.**

(R-9) Offered intermittently. Experimental offerings of visiting professors, experimental offerings of new courses, or one-time offerings of current topics. Level: Undergraduate-Graduate

**COUN 492 - Independent Study. 1-6 Credits.**

(R-6) Offered intermittently. Course material appropriate to the needs and objectives of the individual student. Level: Undergraduate and Graduate

**COUN 510 - Introduction to Counseling. 1 Credit.**

Restricted to students in the Counselor Education and Counselor Education and Supervision programs. This course is designed to prepare school and mental health counselors-in-training gain an understanding of the counseling field and begin developing professional identity. Much of the material introduced in this course will be developed in greater detail in later courses. This course is an overview that prepares the student for their professional identity and activities. Level: Graduate

**COUN 511 - Theories & Techniques of Counseling. 3 Credits.**

Offered autumn. Examination of historic and current theories of counseling. Overview of techniques associated with each theory. Basic introduction to ethical concerns with each theory. Level: Graduate

**COUN 512 - Counseling Fundamentals. 3 Credits.**

Offered autumn. Restricted to students in the Counselor Education and Counselor Education and Supervision programs. Overview of approaches to counseling, including common factors. Includes meta-theoretical considerations and guided dyadic practice. Level: Graduate

**COUN 520 - Group Counseling & Guidance. 3 Credits.**

Offered spring. Restricted to students in the Counselor Education and Counselor Education and Supervision programs. Theories, approaches, and methods for group counseling and guidance. Level: Graduate

**COUN 530 - Applied Counseling Skills. 3 Credits.**

Offered autumn and spring. Prereq., COUN 511 and COUN 512. Restricted to students in the Counselor Education and Counselor Education and Supervision programs. Review and application of counseling theories and techniques to client issues. Intensive supervision including ethics, professional practice and diagnostic considerations. Lecture and class presentation with a focus on professional counseling development. Level: Graduate

**COUN 540 - Individual Appraisal. 3 Credits.**

Offered summer. Restricted to students in the Counselor Education and Counselor Education and Supervision programs. Overview of appraisal techniques utilized in counseling, including interviewing, observation, and psychological/educational testing. The processes of selection, administration, scoring, interpretation, and reporting information from appraisal techniques are examined in relation to practical, legal, and ethical considerations. Level: Graduate

**COUN 545 - Counseling Research & Program Evaluation. 3 Credits.**

Restricted to students in the Counselor Education and Counselor Education and Supervision programs. This course provides an overview and analysis of quantitative and qualitative research approaches used within the professional counseling discipline. A focus on understanding key research concepts (e.g., internal validity, external validity) within the context of contemporary research publications in counseling is emphasized. Level: Graduate

**COUN 550 - Introduction to Family Counseling. 3 Credits.**

Offered fall. Restricted to students in the Counselor Education and Counselor Education and Supervision programs. An introduction to the major theories, techniques, and diagnostic tools of family counseling. Course includes a family systems emphasis. Level: Graduate

**COUN 555 - Risk & Resiliency. 3 Credits.**

Offered fall. Restricted to students in the Counselor Education and Counselor Education and Supervision programs. This course is a required course in the graduate Department of Counseling's Clinical Mental Health Counseling and School Counseling programs.

**COUN 560 - Lifespan Developmental Counseling. 3 Credits.**

Offered summer. Restricted to students in the Counselor Education and Counselor Education and Supervision programs. Overview of counseling from the framework of lifespan developmental theory. Normal and abnormal development in the environmental context of family, school, society and culture is emphasized. Level: Graduate

**COUN 565 - School Counseling, Program Development, & Supervision. 3 Credits.**

Offered fall. Restricted to students in the Counselor Education and Counselor Education and Supervision programs. Examination of counseling techniques and approaches relevant to prevention and remediation of behavioral, social, emotional and academic problems for students P-12. Overview of school counseling program development and administration. Level: Graduate

**COUN 566 - Counseling Children & Adolescents. 3 Credits.**

Offered every spring. Prereq., COUN 511 and COUN 512. Restricted to students in the Counselor Education and Counselor Education and Supervision programs. Review and application of counseling concerns and approaches with children and adolescents in school and related educational settings, including classroom and psychoeducational strategies. Level: Graduate

**COUN 570 - Career Counseling Theory & Technology. 3 Credits.**

Offered summer only. Restricted to students in the Counselor Education and Counselor Education and Supervision programs. Examination of theories of career choice and development; information sources for career counseling; techniques and approaches of career counseling with clients at different stages of career and life development and from diverse populations. Level: Graduate

**COUN 575 - Multicultural Counseling. 3 Credits.**

Offered spring. Restricted to students in the Counselor Education and Counselor Education and Supervision programs. An introduction to the field of multicultural counseling. Issues and practical considerations in counseling five population groups; definition of terms and concepts. Level: Graduate

**COUN 585 - Counseling Methods: School & Agency. 1-9 Credits.**

Offered every term. Prereq., COUN 511, COUN 512, and COUN 530. Restricted to students in the Counselor Education and Counselor Education and Supervision programs. Supervised counseling methods and theories as applied in mental health agencies and schools. Review of the principles of counseling as these apply to various settings and client issues. Level: Graduate

**COUN 589 - Comprehensive Project. 1 Credit.**

Offered autumn and spring. Restricted to students in the Counselor Education and Counselor Education and Supervision programs. Integration of professional experience and academic research in a comprehensive paper or applied project. Students may elect to have an oral examination covering the eight CACREP core areas of counseling. Level: Graduate

**COUN 590 - Research. 1-9 Credits.**

(R-9) Offered autumn and spring. Restricted to students in the Counselor Education and Counselor Education and Supervision programs. Directed individual research and study appropriate to the background and objectives of the student. Level: Graduate

**COUN 591 - Special Topics. 1-9 Credits.**

(R-24) Offered intermittently. Experimental offerings of visiting professors, experimental offerings of new courses, or one-time offerings of current topics. Level: Graduate

**COUN 592 - Independent Study. 1-6 Credits.**

(R-6) Offered intermittently. Restricted to students in the Counselor Education and Counselor Education and Supervision programs. Requires consent of instructor. Course material appropriate to the needs and objectives of the individual student. Level: Graduate

**COUN 594 - Seminar. 1-9 Credits.**

(R-9) Offered intermittently. Restricted to students in the Counselor Education and Counselor Education and Supervision programs. Group analysis of problems in specific areas of professional counseling. Level: Graduate

**COUN 598 - Internship. 1-6 Credits.**

(R-6) Restricted to students in the Counselor Education and Counselor Education and Supervision programs. Practical application of classroom learning in off-campus placements. Level: Graduate

**COUN 610 - Professional Ethics and Orientation. 3 Credits.**

Offered fall. Restricted to students in the Counselor Education and Counselor Education and Supervision programs. The public and institutional roles and responsibilities of counseling professionals including ethical and legal responsibilities. Level: Graduate

**COUN 615 - Diagnosis/Treatment Planning in Counseling. 3 Credits.**

Offered spring. Restricted to students in the Counselor Education and Counselor Education and Supervision programs. Overview of diagnosis, treatment planning and case documentation in counseling. Level: Graduate

**COUN 620 - Advanced Counseling Theories. 3 Credits.**

Prereq., COUN 511. Restricted to students in the Counselor Education and Counselor Education and Supervision programs. This course provides an overview and analysis of evidence based treatments in counseling. There is a focus on cognitive-behavioral treatments for specific disorders as well as acceptance and commitment therapy and principles of evidence-based relationships. Practical application of these approaches is emphasized. Level: Graduate

**COUN 625 - Introduction to Mental Health Systems. 3 Credits.**

Restricted to students in the Counselor Education and Counselor Education and Supervision programs. Essential knowledge for professional identity, understanding of public policy, and community assessment procedures. Includes brief lectures, guest speakers, discussion, and student presentations. Level: Graduate

**COUN 630 - Doctoral Clinical Practice. 3 Credits.**

Restricted to students in the Counselor Education and Counselor Education and Supervision programs. Doctoral level clinical experience of 100 supervised hours focusing on the counseling relationship, including case conceptualization and therapeutic skills from a variety of theoretical perspectives. Additional areas of focus are ethical considerations and the assessment of professional counseling outcomes. Level: Graduate

**COUN 635 - Clinical Supervision Practice. 3 Credits.**

Restricted to students in the Counselor Education and Counselor Education and Supervision programs. Introduction to clinical supervision. Includes professional supervision standards, theory, modalities, settings, ethical and legal issues. Course includes supervision of doctoral student supervision experiences. Level: Graduate

**COUN 640 - Professional Leadership and Scholarly Development. 3 Credits.**

Restricted to students in the Counselor Education and Counselor Education and Supervision programs. Theories of academic leadership, within professional trends, political and social contexts. Includes developing awareness of scholarly opportunities, including preparation of a professional counseling organization conference proposal. Level: Graduate

**COUN 650 - Pedagogy and the Professorate. 3 Credits.**

Restricted to students in the Counselor Education and Counselor Education and Supervision programs. Consideration of pedagogy including teaching, learning, governance, curriculum development, assessment and evaluation. Includes knowledge of accreditation processes, personal and professional challenges of faculty life and exploration of doctoral-level career paths. Level: Graduate

**COUN 670 - Doctoral Comprehensive Exam. 2 Credits.**

Restricted to students in the Counselor Education and Counselor Education and Supervision programs. Students will successfully complete four doctoral Comprehensive Examination Essays read by all members of the student's Doctoral Comps Committee. At least one of the essays is to be submitted for publication. Level: Graduate

**COUN 674 - Qualitative Research I. 3 Credits.**

Offered autumn. Restricted to students in the Counselor Education and Counselor Education and Supervision programs.

**COUN 675 - Qualitative Research II. 3 Credits.**

Offered spring. Restricted to students in the Counselor Education and Counselor Education and Supervision programs.

**COUN 685 - Methods in Counselor Education and Professional Counseling. 1-9 Credits.**

(R-18) Restricted to students in the Counselor Education and Counselor Education and Supervision programs. Supervised advanced counselor education methods and approaches that address the professional leadership roles of counselor education, including realms of teaching and advising, clinical supervision, scholarly work and professional counseling practice. Level: Graduate

**COUN 691 - Special Topics. 1-9 Credits.**

(R-24) Offered intermittently. Restricted to students in the Counselor Education and Counselor Education and Supervision programs. Experimental offerings of visiting professors, experimental offerings of new courses, or one-time offerings of current topics. Level: Graduate

**COUN 699 - Thesis/Dissertation. 1-9 Credits.**

(R-14) Offered intermittently. Prereq., EDLD 620 or EDLD 625. Restricted to students in the Counselor Education and Counselor Education and Supervision programs. Preparation of a dissertation, thesis, professional paper, or manuscript based on research for presentation and/or publication. Credit/No Credit grading only. Level: Graduate

## Creative Pulse (CP)

**CP 582 - Arts Education Seminar I. 1-2 Credits.**

(R-4) Offered summer. A review and discussion of current research. Topics vary. Level: Graduate

**CP 583 - Arts Education Seminar II. 1-2 Credits.**

(R-4) Continuation of CP 582. Level: Graduate

**CP 584 - Arts Education Seminar III. 1-2 Credits.**

(R-4) Offered summer. Continuation of CP 583. Level: Graduate

**CP 585 - Arts Education Seminar IV. 1-2 Credits.**

(R-4) Offered summer. Continuation of CP 584. Level: Graduate

**CP 587 - Arts Education Practicum. 2 Credits.**

(R-8) Continuation and synthesis of preceding seminars. Level: Graduate

**CP 588 - Creative Pulse Apprenticeship. 1-3 Credits.**

(R-24) Offered summer. Exploration of art forms to develop new artistic and communicative perceptions and awareness. Level: Graduate

**CP 589 - Arts Education Field Project. 1 Credit.**

(R-4) Offered summer. Creative/research activities. Level: Graduate

**CP 590 - Research. 1-6 Credits.**

(R-24) Directed individual research and study appropriate to the background and objectives of the student. Level: Graduate

**CP 591 - Special Topics. 1-9 Credits.**

Offered intermittently. Experimental offerings by visiting professors, experimental offerings of new courses, and/or one-time offerings of current topics. Level: Graduate

**CP 592 - Independent Study. 1-6 Credits.**

(R-24) Course material appropriate to the needs and objectives of the individual student. Level: Graduate

**CP 599 - Professional Paper. 1-4 Credits.**

(R-4) Preparation of a professional paper appropriate to the needs and objectives of the individual student. Level: Graduate

## Creative Writing (CRWR)

**CRWR 115L - Montana Writers Live. 3 Credits.**

(R-6) Offered autumn. Open to all majors. An introduction to Montana's practicing creative writers and their work through reading, live performances and discussion. Regional poets and prose writers will read from their work and lead class discussion. Students prepare questions developed from readings and criticism.

Gen Ed Attributes: Literary & Artistic Studies

**CRWR 191 - Special Topics. 1-6 Credits.**

(R-6) Offered intermittently. Experimental offerings of visiting professors, experimental offerings of new courses, or one-time offerings of current topics.

**CRWR 210A - Introductory Fiction Workshop. 3 Credits.**

Offered intermittently. Offered on Mountain Campus and at Missoula College. This beginning writing workshop emphasizes the reading, discussion, and revision of students' short fiction. Students will be introduced to the technical elements of writing fiction. No prior experience in writing short fiction required.

Gen Ed Attributes: Expressive Arts

**CRWR 211A - Introductory Poetry Workshop. 3 Credits.**

Offered intermittently. This beginning writing workshop focuses on the reading, discussion, and revision of students' poems. Students will study and use models of poetic techniques. No prior experience in writing poetry required.

Gen Ed Attributes: Expressive Arts

**CRWR 212A - Introductory Nonfiction Workshop. 3 Credits.**

A study of the art of nonfiction through reading and responding to contemporary nonfiction and the writing of original nonfiction works. Focus is on creative expression, writing technique and nonfiction forms. Students begin with writing exercises and brief essays, advancing to longer forms as the semester progresses.

Gen Ed Attributes: Expressive Arts

**CRWR 234 - The Oval: Literary Magazine. 3 Credits.**

(R-6) Offered Spring, Mountain Campus. This course is open to undergraduates who have completed at least one semester of creative writing. Students focus on the editing, design, layout and marketing of The Oval, University of Montana's undergraduate literary magazine. Students will read, discuss and develop responses to to recognized literary works, as well as developing criteria for each volume's content and design. The class will include the evaluation and selection of fiction, nonfiction, poetry and visual art submissions to The Oval. Students are required to keep a reading journal, and compile a portfolio of writing exercises, responses to texts and critiques of published works.

**CRWR 240A - Introduction to Creative Writing Workshop. 3 Credits.**

Offered intermittently. Offered at Missoula College. Beginning writing workshop designed for students to explore genres of creative writing with opportunities for students to write, and revise using genre-specific writing techniques.

Gen Ed Attributes: Expressive Arts

**CRWR 291 - Special Topics. 1-6 Credits.**

(R-6) Offered intermittently. Experimental offerings of visiting professors, experimental offerings of new courses, or one-time offerings of current topics.

**CRWR 310 - Intermediate Fiction Workshop. 3 Credits.**

(R-9) Offered autumn and spring. Prereq., CRWR 210A. An intermediate fiction writing workshop. Students will be expected to finish 3 or 4 substantial stories for the course. Although some outside material will be considered, the primary emphasis will be analysis and discussion of student work.

**CRWR 311 - Intermediate Poetry Workshop. 3 Credits.**

(R-9) Offered autumn and spring. Prereq., CRWR 211A. An intermediate workshop involving critical analysis of students' work-in-progress as well as reading and discussion of poems in an anthology. Numerous directed writing assignments, experiments, exercises focused on technical considerations like diction, rhythm, rhyme, and imagery.

**CRWR 312A - Intermediate Nonfiction Workshop. 3 Credits.**

(R-9) Prereq., CRWR 212A or CRWR 210A. An intermediate nonfiction workshop. Students read and respond to model essays, in addition to creating and revising original essays for workshop review. Assignments and exercises focus on writing craft and research techniques.

Gen Ed Attributes: Expressive Arts

**CRWR 320 - The Art and Craft of Revision. 3 Credits.**

(R-6) Offered spring. Prereq., CRWR 210A. An intermediate writing course focused on revision of prose works-in-progress and study of narrative, plot, and editing at the language level. Materials include craft manuals, contemporary and classic examples, and student manuscripts.

**CRWR 391 - Special Topics. 1-9 Credits.**

(R-9) Offered intermittently. Experimental offerings of visiting professors, experimental offerings of new courses, or one-time offerings of current topics.

**CRWR 392 - Independent Study. 1-3 Credits.**

(R-9) Course material appropriate to the needs and objectives of the individual student.

**CRWR 398 - Internship. 1-3 Credits.**

(R-9) Offered intermittently. Extended classroom experience that provides practical application of classroom learning during placements off campus. Prior approval must be obtained from the faculty supervisor. A maximum of 6 credits of Internship (198, 298, 398, 498) may count toward graduation.

**CRWR 410 - Advanced Fiction Workshop. 2-3 Credits.**

(R-6) Offered autumn and spring. Prereq., CRWR 310. An advanced writing workshop in which student manuscripts are read and critiqued. Rewriting of work begun in CRWR 310 will be encouraged. Level: Undergraduate-Graduate

**CRWR 411 - Advanced Poetry Workshop. 2-3 Credits.**

(R-6) Offered autumn and spring. Prereq., CRWR 311. An advanced writing workshop involving critical analysis of students' work-in-progress as well as reading and discussion of poems by established poets. Discussions will focus on structure and stylistic refinement with emphasis on revision. Different techniques, schools, and poetic voices will be encouraged. Frequent individual conferences. Level: Undergraduate-Graduate

**CRWR 412 - Advanced Nonfiction Workshop. 3 Credits.**

(R-6) Offered autumn and spring. Prereq., CRWR 312A. An advanced creative writing workshop focused primarily on reading and writing nonfiction; some classes may focus on personal essay, narrative nonfiction or short forms. Students complete two substantial essays. Level: Undergraduate-Graduate



**CRWR 425 - Storytelling. 3 Credits.**

This course is open to both undergraduate and graduate students, and is not limited to English majors. In-class exercises and out-of-class assignments are designed to help students identify, develop, and demonstrate effective narrative practices in their chosen fields. Students learn to recognize and identify unifying themes, motifs, and ideas in literature and oral stories. Students will read, write, edit and present stories to the class, as well as providing a critique of their peers' work. Level: Undergraduate-Graduate

**CRWR 480 - Fiction Capstone. 3 Credits.**

Offered autumn or spring. Restricted to students in the Creative Writing BFA program. Prereq., CRWR 410 or CRWR 411 or CRWR 412 with a minimum grade of B. The BFA capstone is the ultimate course for students prior to graduation. This is a hands-on course and a mentorship, though some elements maybe be offered electronically. Level: Undergraduate

**CRWR 481 - Poetry Capstone. 3 Credits.**

Offered autumn or spring. Restricted to students in the Creative Writing BFA program. Prereq., CRWR 410 or CRWR 411 or CRWR 412 with a minimum grade of B. The poetry capstone is the ultimate course for students receiving a BFA with a poetry emphasis. This is a hands-on mentoring course that may use some electronic components. Level: Undergraduate

**CRWR 482 - Nonfiction Capstone. 3 Credits.**

Offered autumn or spring. Restricted to students in the Creative Writing BFA program. Prereq., CRWR 410 or CRWR 411 or CRWR 412 with a minimum grade of B. The nonfiction capstone is the ultimate course for students receiving a BFA with a nonfiction emphasis. This is a hands-on mentoring course that may use some electronic components. Level: Undergraduate

**CRWR 491 - Special Topics. 1-6 Credits.**

(R-6) Offered Intermittently. Experimental offerings of visiting professors, experimental offerings of new courses, or one-time offerings of current topics. Level: Undergraduate-Graduate

**CRWR 492 - Independent Study. 1-9 Credits.**

(R-9) Course material appropriate to the needs and objectives of the individual student. Level: Undergraduate

**CRWR 510 - Fiction Workshop. 1-15 Credits.**

(R-15) Offered autumn and spring. Restricted to students in the Creative writing MFA program. Level: Graduate

**CRWR 511 - Poetry Workshop. 1-15 Credits.**

(R-15) Offered autumn and spring. Restricted to students in the Creative writing MFA program. Level: Graduate

**CRWR 512 - Nonfiction Workshop. 1-15 Credits.**

(R-15) Offered autumn and spring. Restricted to students in the Creative writing MFA program. A creative writing workshop focused primarily on personal essay and narrative nonfiction. Attention given to writing and publishing professional magazine essays. Students complete two substantial essays. Level: Graduate

**CRWR 513 - Techniques of Nonfiction. 1-6 Credits.**

(R-6) Offered once every 2 years. Restricted to students in the Creative writing MFA program. Study of form, technique and style in contemporary nonfiction. Level: Graduate

**CRWR 514 - Techniques of Modern Fiction. 1-6 Credits.**

(R-6) Offered intermittently. Restricted to students in the Creative Writing-Fiction MFA program. Intensive reading of contemporary prose writers. Level: Graduate

**CRWR 515 - Traditional Prosody. 3 Credits.**

Offered intermittently. Restricted to students in the Creative writing MFA program. Intensive practice and readings in prosodic and other poetic techniques. Level: Graduate

**CRWR 591 - Special Topics. 1-9 Credits.**

(R-24) Offered intermittently. Restricted to students in the Creative writing MFA program. Experimental offerings of visiting professors, experimental offerings of new courses, or one-time offerings of current topics. Level: Graduate

**CRWR 592 - Independent Study. 1-9 Credits.**

(R-9) Offered every term. Restricted to students in the Creative writing MFA program. Course material appropriate to the needs and objectives of the individual student and special projects in creative writing. Level: Graduate

**CRWR 598 - Internship. 1-6 Credits.**

(R-6) Offered intermittently. Restricted to students in the Creative writing MFA program. Extended classroom experience that provides practical application of classroom learning during placements off campus. Prior approval must be obtained from the faculty supervisor. Level: Graduate

**CRWR 599 - Thesis. 1-12 Credits.**

(R-12) Offered every term. Restricted to students in the Creative writing MFA program. Preparation of a thesis or manuscript based on research for presentation and/or publication. Level: Graduate

## Creativity, Innovation, and Entrepreneurship (CIE)

**CIE 391 - Special Topics. 1-12 Credits.**

(R-12) Offered intermittently. Experimental offerings of visiting professors, experimental offerings of new courses, or one-time offerings of current topics.

**CIE 401 - Creative Collaboration. 3 Credits.**

(R-6) Offered intermittently. Creative Collaboration challenges students to be become a team and engage real problems, preparing to be adaptive and successful collaborators regardless of their field. Each student works with a team of peers on projects that are student-generated, from campus research, city or business partners, or community non-profits. Level: Undergraduate-Graduate

**CIE 402 - Digital Portfolio. 3 Credits.**

(R-6) Offered intermittently. A Digital Portfolio is a collection of text-based, graphic, or multimedia artifacts that represent a student's accomplishments. Digital Portfolios are a practical means of collecting, selecting and reflecting on a student's academic achievements. As a summative capstone experience, students develop a comprehensive Digital Portfolio that exemplifies the Innovation Certificate and condenses the skills gained, partnerships built, and inherent navigation of a contemporary workforce. Level: Undergraduate-Graduate

## Criminal Justice (CJUS)

**CJUS 125N - Fundamentals of Forensic Science. 3 Credits.**

Offered every term. A survey of the forensic sciences and related disciplines and their use in criminal investigations, the role of forensic scientists in the investigative process and as expert witnesses. Gen Ed Attributes: Natural Science



**CJUS 191 - Special Topics. 1-9 Credits.**

(R-9) Offered intermittently. Experimental offerings of visiting professors, experimental offerings of new courses, or one-time offerings of current topics.

**CJUS 488 - Forensic Science the Crime Lab and Beyond. 3 Credits.**

Offered fall and spring. Examination of the forensic sciences with emphases on the non-crime lab forensic sciences, new technologies, and new directions in the forensic sciences. Level: Undergraduate-Graduate

## Culinary Arts (CULA)

**CULA 100 - Culinary Arts Fundamentals. 2 Credits.**

Offered autumn. Offered at Missoula College. Restricted to students in the Big Sky Culinary Institute Programs. This class will provide the fundamentals to the food service industry, the program, and kitchen expectations. The student will learn the basics of mise en place, safety and sanitation, recipe organization, culinary math, and product requisitioning. In addition, students will learn the importance of uniforms, knives, and other personal hygiene requirements prior to entering the kitchen.

**CULA 101 - Introduction to Knife Skills and Butchery. 2 Credits.**

Offered at Missoula College. Restricted to students in the Big Sky Culinary Institute Programs. Integrated Lab. Prereq. or Coreq., CULA 100 and CULA 105. Course fee: \$250. This course will introduce the student to the fundamentals of food handling practices, which include basic and advanced knife skills and butchery for vegetables, meats, poultry, and seafood. Students will be provided hands-on practice with knife safety, upkeep, and station set-up, as well as equipment safety and sanitation procedures used in professional and commercial kitchens.

**CULA 105 - Food Service Sanitation. 2 Credits.**

Offered autumn and summer. Offered at Missoula College. Restricted to students in the Big Sky Culinary Institute Programs. Introduction to fundamentals in safe and sanitary food handling practices. Emphasis on development of a well-designed food safety program centered on Hazard Analysis Critical Control Point (HACCP).

**CULA 156 - Dining Room Procedures. 3 Credits.**

Offered autumn and spring semesters. Offered at Missoula College. Restricted to students in the Big Sky Culinary Institute Programs. Prereq., CULA 101 and CULA 105. Laboratory Class. Course fee: \$250. Introduction to the basic foundations of dining room service and protocol. Students will be encouraged to provide a "hospitality centered" service that culminates in an experience that exceeds the guests' expectations. Students will learn techniques for gaining a competitive advantage in the marketplace. Personal hygiene, mathematics, and basic culinary terminology related to dining room and beverage service are included.

**CULA 157 - Pantry & Garde Manger. 3 Credits.**

Offered autumn and spring. Offered at Missoula College. Restricted to students in the Big Sky Culinary Institute Programs. Prereq., CULA 101 and CULA 105. Laboratory Class. Course fee: \$250.00. Identification of a variety of fresh greens, vegetables and fruits, their general and specific use, standards of quality, preparation and presentation. Also covered are entrée salads, side salads, salad dressings, cold sauces, relishes, dips, appetizers, canapés/amuse bouche, frozen desserts, and hot appetizers.

**CULA 158 - Breakfast and Sandwich Cookery. 3 Credits.**

Offered every term. Offered at Missoula College. Restricted to students in the Big Sky Culinary Institute Programs. Prereq., CULA 101 and CULA 105. Laboratory Class. Course Fee \$250. To introduce a hands-on approach to various hot and cold sandwiches as well as classic American Cuisine. Breakfast preparations and egg cookery are explored. Students set up and maintain a fast-paced station and utilize appropriate equipment, proper cooking temperatures, and sanitation practices. The product is evaluated and judged according to standards of quality and consistency which include: flavor, appearance, aroma, body.

**CULA 160 - Soups, Stocks, & Sauces. 3 Credits.**

Offered every term. Offered at Missoula College. Restricted to students in the Big Sky Culinary Institute Programs. Laboratory Class. Course fee: \$250.00. To introduce a hands-on approach to stocks, soups and sauces. This class will explore the foundations of cooking in the form of stocks and broths, the mother sauces, international sauces and soups, classical French soup techniques, as well as the basic applications of thickening agents and mirepoix.

**CULA 161 - Meats & Vegetables. 3 Credits.**

Offered every term. Offered at Missoula College. Restricted to students in the Big Sky Culinary Institute Programs. Prereq., CULA 101 and CULA 105. Laboratory class. Course fee: \$250.00. To introduce a hands-on approach to various meats and game animals; poultry and game birds; fish and shellfish; vegetable and starch cookery. Apply good technique, observing all standards for ingredient preparation, appropriate equipment, cooking temperatures, and flavor development. Evaluate the product and judge it according to standards of quality; flavor, appearance, aroma, body.

**CULA 162 - Storeroom Management and Receiving Operations. 2 Credits.**

Offered autumn and spring semesters. Offered at Missoula College. Restricted to students in the Big Sky Culinary Institute Programs. This course will give a hands-on approach to managing a storeroom and inventory in a food service establishment. Students will practice inventory control, purchasing, receiving goods, proper storage, sanitation, food waste elimination, and yield tests. Laboratory class. Course Fee: \$103.00

**CULA 165 - Baking & Pastry. 5 Credits.**

Offered every term. Offered at Missoula College. Restricted to students in the Big Sky Culinary Institute Programs. Prereq., CULA 101 and CULA 105. Integrated lab class. Course fee: \$250.00. This course provides students with practical experience working in a bakeshop situation realistic to restaurant kitchens and bakeries. Students become familiar with producing a variety of baked goods as well as setting up mise en place, different baking techniques, and dessert plating techniques for the dining room and banquet situations. Baking and Pastry focuses on weights, measures, formulas and general baking classifications, handling and storage of ingredients, safety and sanitation, production of yeast raised dough products, cakes, cookies, batters, breads, biscuits, muffins, pies, and special dessert preparation.

**CULA 191 - Special Topics. 1-6 Credits.**

(R-6) Offered intermittently. Offered at Missoula College. Restricted to students in the Big Sky Culinary Institute Programs. Experimental offerings of visiting professors, experimental offerings of new courses, or one-time offerings of current topics.

**CULA 192 - Independent Study. 1-6 Credits.**

(R-6) Offered intermittently. Offered at Missoula College. Restricted to students in the Big Sky Culinary Institute Programs. Course material appropriate to the needs and objectives of the individual student.

**CULA 198 - Internship. 1-6 Credits.**

Restricted to students in the Big Sky Culinary Institute Programs. Introduction to foundations of dining room service and protocol. Includes techniques in dining room service. Personal hygiene, applied math, basic culinary terminology, beverage management, and table side cooking methods are practiced.

**CULA 204 - Bakery and Espresso Retail Management. 2 Credits.**

Offered spring. Prereq., CULA 101 and CULA 105. Integrated lab class. Offered at Missoula College. Restricted to students in the Big Sky Culinary Institute Programs. Course fee required. This course will explain the fundamentals of operating a retail bakeshop and espresso bar. Students will have on-the-job training in customer service, cash handling, espresso and drink service, bakery merchandising, display case design, sales and marketing for small businesses, and practical Point-of-Sales experience.

**CULA 205 - Catering Management. 2 Credits.**

Offered autumn and spring. Offered at Missoula College. Restricted to students in the Big Sky Culinary Institute Programs. Coreq., CULA 298 and 299. Integrated lab class. Course fee: \$103.00. This course will introduce the student to a comprehensive look at planning, starting, and operating a successful catering business. The course will explain the fundamentals of menu development, execution, and financial planning for a variety of catering operations including: restaurants, hotels, large institutions, private companies, event planning, and on vs. off-site events.

**CULA 206 - Restaurant Management. 3 Credits.**

Offered spring. Offered at Missoula College. Restricted to students in the Big Sky Culinary Institute Programs. Although no prerequisites are required, CULA 220, ACTG 101, ACTG 102, or ACTG 201 is recommended. This course will explain the fundamentals of opening and managing a restaurant. Students will study and create business plans that include restaurant concepts, menus, financial statements, marketing and advertising campaigns, equipment lists, and standard operating procedures for both sanitation practices (including HACCP plans) and general employment practices. This course will also a study and discuss industry trends and current ethical and professional management practices for restaurateurs.

**CULA 210 - Nutritional Cooking. 3 Credits.**

Offered spring. Offered at Missoula College. Restricted to students in the Big Sky Culinary Institute Programs. Prereq., CULA 101 and CULA 105. This course provides the basics of human nutrition as it relates to culinary professionals. Students will experience the course material in both lecture and in a hands-on approach to the principles of healthful cooking techniques and special dietary needs. Students will learn how to develop and modify recipes to produce healthful menu options with whole foods. This course also introduces conventional and sustainable farming practices and how it relates to nutritional cooking. Integrated lab class. Course fee: \$250.

**CULA 220 - Purchasing and Cost Control. 3 Credits.**

Offered autumn semester. Prereq., CULA 101 and CULA 105. Completion of math requirement for degree required. Offered at Missoula College. Restricted to students in the Big Sky Culinary Institute Programs. This course provides the principles of purchasing foods and materials based on needs, specifications, availability, and seasonality. Students will be presented the costs of doing business including products, labor, facilities, and preparing financial statements.

**CULA 255 - Montana Meats and Charcuterie. 2 Credits.**

Offered autumn and spring. Offered at Missoula College. Restricted to students in the Big Sky Culinary Institute Programs. Prereq., CULA 101 and CULA 105. Laboratory class. Course fee required. This course will provide hands-on practice with the different areas of charcuterie. Students will learn the techniques of sausage making, salting and curing, fermentation, food preservation, refined paté execution, and buffet presentation, including centerpieces.

**CULA 275 - Patisserie. 2 Credits.**

Offered spring. Offered at Missoula College. Restricted to students in the Big Sky Culinary Institute Programs. Advanced principles and techniques in preparing custard sauces, pastry cream, puddings, custards, mousses, Bavarians, soufflés, ices, crepes, fruits, and dessert sauces. Emphasis on presentation of plated desserts.

**CULA 280 - Practicum. 3 Credits.**

Offered spring. Missoula College course. Prereq., CULA 206. Restricted to students in the Big Sky Culinary Institute Programs. Integrated lab class. Students will work on thesis projects that applies all areas of education to highlight their interests and abilities in food service management and the culinary arts. Course will conclude with the final practical exam required for graduation.

**CULA 291 - Special Topics. 1-6 Credits.**

Offered at Missoula College. Restricted to students in the Big Sky Culinary Institute Programs. Experimental offerings of visiting professors, experimental offerings of new courses, or one-time offerings of current topics.

**CULA 298 - Food Service Internship. 1-6 Credits.**

Offered all terms. Offered at Missoula College. Restricted to students in the Big Sky Culinary Institute Programs. Variable Credits. Work-based education in a position appropriate to student's interest for career opportunities and growth while upholding the educational standards of the Big Sky Culinary Institute. This experience increases students' skills, prepares them for initial employment, and increases occupational awareness and professionalism. Offered for CR/NCR grading only.

**CULA 299 - Culinary Arts Capstone. 2 Credits.**

Offered spring. Offered at Missoula College. Restricted to students in the Big Sky Culinary Institute Programs. Coreq., CULA 205 and CULA 298. Students must be enrolled in final semester of program and maintain a minimum "C" in all courses required for graduation in the AAS Degree. This course will be a culmination of education for the AAS in Food Service Management. Students will work on thesis projects that applies all areas of education to highlight their interests and abilities in food service management and the culinary arts. Course will conclude with the final practical exam required for graduation

## Dance (DANC)

**DANC 100A - Introduction to Modern Dance. 3 Credits.**

(R-6) Offered autumn and spring. Introduction to basic modern dance vocabulary through exercises for alignment, strength and flexibility and combinations across the floor.  
Gen Ed Attributes: Expressive Arts

**DANC 108A - Dance Forms. 1-8 Credits.**

(R-8) Offered autumn and spring. Introduction to basic dance vocabulary and technique in a particular style.  
Gen Ed Attributes: Expressive Arts

**DANC 110A - Introduction to Ballet. 3 Credits.**

(R-6) Offered autumn and spring. Introduction to basic ballet positions and steps.

Gen Ed Attributes: Expressive Arts

**DANC 115A - Introduction to Jazz Dance. 3 Credits.**

(R-6) Offered autumn and spring. Introduction to basic strengthening and stretching exercises and stylistic characteristics of jazz.

Gen Ed Attributes: Expressive Arts

**DANC 129A - Dance Performance Lab I. 1 Credit.**

(R-7) Credit for rehearsing and performing in approved Theatre & Dance productions.

Gen Ed Attributes: Expressive Arts

**DANC 130A - Introduction to Dance. 3 Credits.**

Offered autumn and spring. The various elements of dance and basic artistic principles underlying dance and all of the arts. Introduces the student to beginning-level dance vocabulary and dance skills as well as the creative process through direct experience.

Gen Ed Attributes: Expressive Arts

**DANC 160A - Dance Forms: Irish. 2 Credits.**

(R-8) Introduction to basic Irish dance vocabulary and technique.

Gen Ed Attributes: Expressive Arts

**DANC 165A - Dance Forms: African. 3 Credits.**

(R-6) Offered autumn. Introduction to basic African dance vocabulary and technique.

Gen Ed Attributes: Expressive Arts

**DANC 191 - Special Topics. 1-6 Credits.**

(R-6) Experimental offerings of visiting professors, experimental offerings of new courses, or one-time offerings of current topics.

**DANC 194 - Seminar: First Year. 1 Credit.**

Introduces incoming first-year students to the world of university dance and contemporary dance as a profession.

**DANC 195 - Studio/Practicum. 1-6 Credits.**

(R-12) Offered intermittently. Studio-based course, emphasizing one-on-one faculty instruction. Students meet during regularly scheduled times with faculty or in small groups throughout the semester to discuss the development of their individual work. Mountain Campus. Face to face.

**DANC 200A - Contemporary Modern II. 2 Credits.**

(R-12) Offered autumn and spring. Continuation of the modern dance vocabulary at an advanced-beginner level.

Gen Ed Attributes: Expressive Arts

**DANC 201 - Intermediate Contemporary Modern II. 2 Credits.**

(R-8) Offered spring. Prereq., DANC 200A. Continuation of the modern dance vocabulary at an intermediate level.

**DANC 205 - Improvisation. 2 Credits.**

(R-6) Exploration of stimulus, structure and performance of improvised movement. Elements such as space, shape, motion, time, quality, form and awareness emphasized. Instructor-designed structures, transitioning to student-designed scores, culminating in improvised performance.

**DANC 210A - Ballet II. 2 Credits.**

(R-12) Offered autumn and spring. Continuation of the ballet vocabulary at an advanced-beginner level.

Gen Ed Attributes: Expressive Arts

**DANC 215A - Jazz Dance II. 2 Credits.**

(R-12) Offered autumn and spring. Continuation of the jazz vocabulary at an advanced-beginner level.

Gen Ed Attributes: Expressive Arts

**DANC 217 - Musical Theatre Styles. 2 Credits.**

(R-4) Offered spring. Prereq., DANC 100A and DANC 110A and DANC 115A. A foundational course in techniques and styles of dance and choreography for musical theatre.

**DANC 220 - Creative Practice I. 2 Credits.**

(R-4) Offered autumn. Prereq., DANC 201. Exploration of stimulus, structure, and performance of both composed and improvised movement. Elements such as space, shape, energy, motion, time, quality, form and awareness emphasized. Instructor-designed structures, transitioning to student-designed scores, culminating in originally created/improvised performance.

**DANC 225 - Rehearsal & Performance. 1-4 Credits.**

(R-24) Offered autumn and spring. Open to students who are choreographing a dance for a concert or to those who have been selected through audition to perform.

**DANC 227 - Community Dance Initiatives. 1 Credit.**

(R-8) This course formalizes program activities students practice each semester, ranging from national and regional to local dance initiatives. Introduces methods, philosophies, and approaches to assist in students' success in utilizing dance as a tool to conduct community engagement.

**DANC 229A - Dance Performance Lab II. 1 Credit.**

(R-7) Credit for rehearsing and performing in approved Theatre & Dance productions.

Gen Ed Attributes: Expressive Arts

**DANC 234L - Dance in Popular Movies. 3 Credits.**

Survey of the history of dance and movement on film, with specific focus on the use of and reasons for choreography in popular movies of specific decades.

Gen Ed Attributes: Literary & Artistic Studies

**DANC 291 - Special Topics. 1-3 Credits.**

(R-12) Experimental offerings of visiting professors, experimental offerings of new courses, or one-time offerings of current topics.

**DANC 294 - Seminar/Workshop. 1 Credit.**

(R-6) Review and discussion of current research. Topics vary.

**DANC 295 - Student Teaching: Children's Dance. 1 Credit.**

(R-12) Offered autumn and spring. Students participate and gain beginning-level teaching experience in two of four dance classes for children ranging in ages from 3.5 to 12 years old.

**DANC 298 - Internship. 1-6 Credits.**

(R-6) Offered intermittently. Extended classroom experience that provides practical application of classroom learning during placements off campus. Prior approval must be obtained from the faculty supervisor. A maximum of 6 credits of Internship (198, 298, 398, 498) may count toward graduation.

**DANC 300 - Contemporary Modern III. 3 Credits.**

(R-12) Offered autumn and spring. Prereq., DANC 201. Extension of the modern dance vocabulary through lengthier combinations of movement.

**DANC 305 - Contact Improvisation. 2 Credits.**

(R-6) The art of moving with one or more partners while using a shifting point of contact and supporting each other's weight. Skills such as rolling, suspending, falling and recovering together explored through physical sensations that use weight, counter-balance and yielding.

**DANC 310 - Ballet III. 2 Credits.**

(R-8) Offered autumn and spring. Prereq., DANC 210A. Development of ability to combine steps; carriage of head and arms.

**DANC 315 - Jazz III. 2 Credits.**

(R-6) Prereq., DANC 215A. Continuation of DANC 215A.

**DANC 320 - Creative Practice II. 2 Credits.**

(R-6) Offered spring odd-numbered years. Prereq., DANC 220. Explores ways to manipulate several dancers in space, through repetition of shapes, through related rhythms. May include choreography for videotape.

**DANC 322 - Dance Touring. 1-4 Credits.**

(R-24) Requires audition. Rehearsal and touring to the community.

**DANC 325 - Spirit Squad. 1 Credit.**

(R-10) Offered autumn and spring. UM cheer and dance team selected during audition process each spring; students perform routines at the intermediate jazz level. Development of current dance performance, leadership, communication and organizational skills.

**DANC 327 - Advanced Rehearsal and Performance. 1-4 Credits.**

(R-24) Offered autumn and spring. Prereq., DANC 225. Restricted to students with at least junior standing. Open to junior/senior dance majors and minors who are choreographing a dance for a university dance concert or who have been selected through audition to perform. Enrolled students engage in creative practices to enhance overall artistry, personal voice and nuance in choreography and performance.

**DANC 329 - Dance Stage Management Practicum. 1-3 Credits.**

(R-18) Offered autumn and spring. Stage management practicum involving stage managing or assistant stage managing a dance production. Involves evening and weekend work.

**DANC 334 - Dance History. 3 Credits.**

Discussion of primary movements and major figures in American modern dance, including global influences and its relationship to cultural trends of the twentieth and twenty-first centuries.

**DANC 345 - New Visions Dance. 1 Credit.**

(R-4) Offered autumn and spring. Students interact with adults with developmental disabilities in an adaptive dance class where movement is used as a therapeutic modality for people with cognitive and physical impairments. Students interact with the participants, engage as role models and gain beginning teaching experience.

**DANC 360L - World Dance. 3 Credits.**

(R-6) Offered spring even-numbered years. Investigation of dances of diverse cultures. Study of dance as: an emblem of cultural identity, social order, power and gender-specific behavior; an expression of religion and/or ritual; a classical art form; and as a medium for personal expression in Western and non-Western world cultures.

Gen Ed Attributes: Literary & Artistic Studies, Cultural & International Diversity

**DANC 380 - Science of Dance Movement. 3 Credits.**

Offered intermittently. Study of the skeletal system and how it relates to dance movement. Basic kinesthetic principles, conditioning for dancers, and injury recognition and prevention.

**DANC 391 - Special Topics. 1-24 Credits.**

(R-24) Experimental offerings of visiting professors, experimental offerings of new courses, or one-time offerings of current topics.

**DANC 392 - Independent Study. 1-3 Credits.**

(R-24) Offered autumn and spring. Course material appropriate to the needs and objectives of the individual student.

**DANC 394 - Seminar/Workshop. 1 Credit.**

(R-2) One-time offerings of current topics.

**DANC 395 - Studio/Practicum. 1-6 Credits.**

(R-12) Offered intermittently. Studio-based course, emphasizing one-on-one faculty instruction. Students meet during regularly scheduled times with faculty or in small groups throughout the semester to discuss the development of their individual work.

**DANC 399 - Junior Creative Research Project. 1 Credit.**

(R-6) Offered autumn and spring. Independent study in choreography or a research paper which could be on such subjects as teaching styles, multiple intelligence theory, dance historical topics, dance injuries, etc. An initial proposal, a journal, and a paper are required.

**DANC 400 - Contemporary Modern IV. 3 Credits.**

(R-6) Offered autumn and spring. Prereq., DANC 300. Performance of exercises and combinations that are technically demanding in strength, balance, weight, agility and line. Level: Undergraduate-Graduate

**DANC 406 - Dance as a Healing Art. 2 Credits.**

(R-6) Study of body movement as a reflection of inner emotional states. How changes in movement lead to changes in the psyche, promoting health and growth. Exploration of techniques for experiencing the inter-connection between movement and emotional expression. Level: Undergraduate-Graduate

**DANC 410 - Ballet IV. 2 Credits.**

(R-8) Offered autumn and spring. Prereq., DANC 310. Continues to build on skills developed in DANC 310; emphasis on developing advanced petite allegro, grand allegro, turns, and artistry. Level: Undergraduate-Graduate

**DANC 440 - Dance Pedagogy. 2 Credits.**

(R-6) Methods and experiences in teaching modern dance, ballet and jazz. Level: Undergraduate

**DANC 446 - Teaching Projects. 1-6 Credits.**

(R-24) Independent study that may involve either assisting in the teaching of a dance technique class or actually planning and teaching it. Level: Undergraduate

**DANC 491 - Special Topics. 1-24 Credits.**

(R-24) Experimental offerings of visiting professors, experimental offerings of new courses, or one-time offerings of current topics. Level: Undergraduate

**DANC 492 - Independent Study. 1-6 Credits.**

(R-9) Offered autumn and spring. Course material appropriate to the needs and objectives of the individual student. Level: Undergraduate

**DANC 494 - Professional Development Dance Seminar. 3 Credits.**

(R-6) Prereq., WRIT 101. Seminar to discuss both practical and philosophical issues in preparation for careers in the professional dance/movement world. Level: Undergraduate  
Gen Ed Attributes: Writing in the Disciplines

**DANC 495 - Practicum/Field Work. 1-6 Credits.**

(R-6) Studio-based course, emphasizing one-on-one faculty instruction. Students meet during regularly scheduled times with faculty or in small groups throughout the semester to discuss the development of their individual work. Level: Undergraduate

**DANC 497 - Methods: Teaching Movement in Schools. 2 Credits.**

Experience in planning, observing and directing creative movement as a teaching tool in K-5. Level: Undergraduate



**DANC 498 - Internship. 1-6 Credits.**

(R-6) Offered autumn and spring. Restricted to students majoring in Dance. Extended classroom experience that provides practical application of classroom learning during placements off campus. Prior approval must be obtained from the faculty supervisor. A maximum of 6 credits of Internship (198, 298, 398, 498) may count toward graduation. Level: Undergraduate

**DANC 499 - Senior Thesis/Creative Project. 1 Credit.**

(R-2) Offered autumn and spring. Prereq., DANC 399. Independent study in choreography or teaching. The student is responsible for setting up the project. An initial proposal, a journal, and a paper are required. Level: Undergraduate

**DANC 591 - Special Topics. 1-6 Credits.**

(R-6) Experimental offerings of visiting professors, experimental offerings of new courses, or one-time offerings of current topics. Level: Graduate

**DANC 595 - Studio/Practicum. 1-6 Credits.**

(R-12) Offered intermittently. Studio-based course, emphasizing one-on-one faculty instruction. Students meet during regularly scheduled times with faculty or in small groups throughout the semester to discuss the development of their individual work.

## Diesel Service Technology (DST)

**DST 120 - Electrical Systems . 8 Credits.**

Offered spring. Offered at Missoula College. The theory of AC/DC electricity including Ohm's Law, magnetism, wiring diagrams, and circuit analysis. Starting, charging, and related systems are covered in-depth using test equipment commonly found in heavy equipment repair facilities. Electronic systems are reviewed and tested using common electronic test equipment.

**DST 128 - Engine Service I. 4 Credits.**

Offered autumn. Offered at Missoula College. Introduction to the construction and operation of internal combustion engines with the diesel engine being examined in detail. The use of measuring tools and related special tools is covered extensively along with common manufacture rebuild procedures. Start-up and running practices are demonstrated on various running diesel engines. Students must complete this course with a letter grade of C or better to enroll in DST 135 Power Trains the second-half of the semester.

**DST 135 - Power Trains. 7 Credits.**

Offered autumn. Offered at Missoula College. Chassis and drive train components used in light and heavy-duty trucks and other equipment. Clutches, manual transmissions, differentials, and final drives are covered.

**DST 191 - Special Topics. 1-6 Credits.**

(R-6) Offered at Missoula College. Experimental offerings of visiting professors, experimental offerings of new courses, or one time offerings of current topics.

**DST 192 - Independent Study . 1-6 Credits.**

(R-6) Offered at Missoula College. Offered every term. Course material appropriate to the needs and objectives of the individual student.

**DST 221 - Brakes, Suspension, and Undercarriage. 6 Credits.**

Offered autumn. Offered at Missoula College. Air brake design, construction, and operating principles including an in-depth study of diagnostic procedures for troubleshooting and repairing brake systems. Suspension systems and undercarriage design and repair are covered along with common axle alignment procedures found in industry. Students must complete this course with a letter grade of C or better to enroll in DST 225, Hydraulics in the second-half of the semester.

**DST 225 - Hydraulics. 6 Credits.**

Offered autumn. Offered at Missoula College. Theory and application of hydraulics relative to mobile construction equipment and industrial hydraulic systems. Includes valves, pumps, motors, actuators, and related hydraulic components, system maintenance, troubleshooting, and repair.

**DST 229 - Engine Service II. 7 Credits.**

Offered spring. Offered at Missoula College. Prereq., DST 128. A continuation of Engine Service I with a major emphasis placed on the rebuilding of a diesel engine. Engine components repair and failure analysis are reviewed along with tune-up and running of diesel engines commonly found in the heavy equipment trade. Shop flat-rate procedures, work order procedures, and warranty requirements are covered. Students must complete this course with a letter grade of C or better to enroll in DST 230, Air Conditioning in the second-half of the semester.

**DST 230 - Air Conditioning. 3 Credits.**

Offered spring. Offered at Missoula College. Prereq., DST 120 and DST 225. Principles, theories, and the hazards of working with R-12 and R-34, including laws governing these refrigerants. An in-depth study of the components of an air conditioning system including hands-on practice. Discharging and charging principles are discussed, including leakage testing and other general diagnostic principles found in the field.

**DST 231 - Fuel Systems . 5 Credits.**

Offered spring. Offered at Missoula College. A comprehensive study of diesel fuel injection systems to include: Cummins, Roosa Master, Caterpillar, Detroit Diesel, and Bosch. Disassembly and repair of these systems are covered in-depth along with calibration practices. Installation, timing, and on-engine adjustments are made on diesel engines. On-engine diagnosis of the fuel systems using special diesel engine diagnostic tools is reviewed.

**DST 235 - Advanced Power Trains. 2 Credits.**

Offered spring. Offered at Missoula College. Prereq., DST 135. A continuation of DST 135 with an emphasis on heavy automatic transmission, torque converters, and powershift transmission. In-depth coverage of component review troubleshooting and repair.

**DST 298 - Diesel Technology Internship. 1-6 Credits.**

(R-6) Extended classroom experience that provides practical application of classroom learning during placements off campus. Prior approval must be obtained from the faculty supervisor. A maximum of 6 credits of Internship (198, 298, 398, 498) may count toward graduation.



## Drafting Design (DDSN)

### **DDSN 113A - Technical Drafting. 3 Credits.**

Offered autumn. Restricted to Missoula College Industrial Technology program majors. An introduction to the techniques and standard practices of communicating technical graphics. The class studies and practices drawing skills and learns the drawing standards that support the needs of the design team in advancing ideas. It also provides the foundation for successful drawing communication in the CAD environment. Topics covered include; drawing media and tools, hand drawing skills, perspectives, views, sketching, standard scales, geometric construction, sections, dimensioning, and tolerances.

Gen Ed Attributes: Expressive Arts

### **DDSN 114 - Introduction to CAD. 3 Credits.**

Offered autumn. Offered at Missoula College. Restricted to Missoula College Industrial Technology program majors. An introduction to computer aided design and drafting software for production of drawings and plans for architecture and engineering systems. Fundamentals of two dimensional drafting and drawing management for professional design.

### **DDSN 116 - 3D CAD. 3 Credits.**

Offered autumn. Offered at Missoula College Prereq. or Co-req., DDSN 114. CAD II provides a project-based, in-depth study of the skills and concepts involved in Computer Aided Design and Drafting. Topics covered include object grouping and sharing; three dimensional modeling; animation; and interoperability with other software. This course is the second in a two-part series covering the core AutoCAD application.

### **DDSN 135 - Solidworks. 3 Credits.**

Offered autumn and spring. Offered at Missoula College. This course introduces the fundamentals of Solidworks 3D parametric feature-based CAD software for the creation of parts, assemblies, drawings, rendering, and animation. The course approach is designed to bring the real power of SolidWorks as a powerful modeling and design system in addition to the individual tools and functionalities available in the software. Hands-on trainings are emphasized throughout the course to ensure that the students gain practical skills to efficiently use SolidWorks based on a sound understanding of the theoretical concepts of 3D modeling and design.

### **DDSN 166 - Revit I. 3 Credits.**

Offered at Missoula College. This course provides an overview of Revit Architectural Software and it's use to provide 2D, and 3D design, and Building Information Modeling.

### **DDSN 191 - Special Topics. 1-6 Credits.**

(R-6) Offered intermittently. Offered at Missoula College. Experimental offerings of visiting professors, experimental offerings of new courses, or one-time offerings of current topics.

### **DDSN 192 - Independent Study. 1-6 Credits.**

(R-6) Offered intermittently. Offered at Missoula College. Prereq., consent of instr. Independent research in geography or planning.

### **DDSN 244 - GIS Mapping. 3 Credits.**

Offered Spring. Offered at Missoula College. Basics of geospatial technologies; remotely sensed imagery, GIS, and GPS and how each of the individual areas can be used together to analyze spatial datasets. Students will explore a wide range of spatial data and will learn to apply these data sets to real-world solutions.

### **DDSN 245 - Civil Drafting. 4 Credits.**

Offered spring. Offered at Missoula College. Prereq. DDSN 114.

Introduces students to computer aided design software for common survey and engineering design and drafting applications. Topics include collection of survey data; the coordinate geometry system; surfaces; subdivision and land planning; road design and corridor modeling; utilities; site grading and drainage; mapping; and 3D visualization.

## Early Childhood Education (EDEC)

### **EDEC 191 - Special Topics. 1-6 Credits.**

(R-6) Offered intermittently. Experimental offerings of visiting professors, experimental offerings of new courses, or one-time offerings of current topics.

### **EDEC 295 - Early Childhood Education Preschool Experience. 3 Credits.**

Offered autumn and spring. Experience in UM's Learning and Belonging (LAB) Preschool. EDEC 295 does not substitute for required coursework in the Early Childhood Education major or minor. Offered CR/NCR only.

### **EDEC 395 - Early Childhood Clinical Experience. 1 Credit.**

(R-4) Offered autumn and spring. Restricted to students in the Teacher Education Program. Arranged field experience and seminar focusing on applying content from the co-requisite courses. This course number may be used for multiple clinical experiences. Students should check the class schedule or with an academic advisor regarding registering for the appropriate section.

### **EDEC 405 - Assessment in Early Childhood. 3 Credits.**

Restricted to students in the Early Childhood Education P-3 program. This course offers an in-depth exploration of the types and purposes of early childhood assessment, with a focus on the critical role of assessment for early screening, evaluation, and designing effective curriculum. Throughout the course, students will examine and critique various assessment tools and strategies, considering their goals, benefits, limitations, and applications for young children, families, staff, and P-3 classrooms. Students will develop and implement assessment plans with opportunities to practice collaboration and build effective assessment partnerships. By the end of the course, participants will be equipped to make informed decisions about assessment practices that enhance learning experiences and outcomes in P-3 settings.

### **EDEC 408 - Early Childhood Principles and Practices. 3 Credits.**

Restricted to students in the Early Childhood Education P-3 program. This course is an overview of principles and practices in early childhood education (ages birth through eight). The main topics to be covered will include: the sociological, professional, and theoretical perspectives of early childhood education with a focus on developmentally appropriate practice (DAP); the skills and dispositions needed in planning and implementing early care and education programs for all children; and education models in early childhood. Co-convened course with EDEC 508. Level: Undergraduate

### **EDEC 410 - Families, Communities, Culture. 3 Credits.**

Restricted to students in the Early Childhood Education P-3 program. This course explores the dynamics of working together with families of young children (birth - 8) in early childhood programs using a family-centered approach that places the child in the context of family and community. Students will explore developmental relationship building, communication, needs-based assessment, and cultural diversity. Level: Undergraduate

**EDEC 420 - Meeting Standards Through Play-Based Environments. 3 Credits.**

Coreq., EDEC 495 (EC Fieldwork/Practicum: Integrated Curriculum). Restricted to students in the Early Childhood Education P-3 program. This course features an in-depth examination of how early learning standards in all content areas (math, STEM, literacy, physical education, and the arts) can be met through the design and facilitated use of play-based environments.

**EDEC 434 - Social/Emotional Development & Child Guidance. 3 Credits.**

Restricted to students in the Early Childhood Education P-3 program. This course examines social and emotional development in young children and child guidance models for P-3 classrooms. Students will examine the development, components, and influences of social competence in the early childhood years, universal design, positive guidance techniques, challenging behaviors, functional assessments, and positive support plans. Students will develop skills in using positive guidance and management techniques while enhancing children's self-esteem and developing children's pro-social skills. Level: Undergraduate

**EDEC 453 - Early Childhood STEM. 3 Credits.**

Restricted to students in the Early Childhood Education P-3 program. This course is designed to address the following questions: How do K-3 students construct science and engineering understandings? What classroom conditions foster opportunities for students to learn and enjoy science and engineering? What teaching strategies engage students in doing and understanding science and engineering? What does it mean to be a culturally responsive science and engineering teacher? Level: Undergraduate

**EDEC 491 - Special Topics. 1-6 Credits.**

(R-6) Offered intermittently. Experimental offerings of visiting professors, experimental offerings of new courses, or one-time offerings of current topics. Level: Undergraduate

**EDEC 495 - EC Fieldwork/Practicum: Integrated Curriculum. 3 Credits.**

Offered autumn. Restricted to students in the Early Childhood Education P-3 program. Coreq., EDEC 420. This course provides students the opportunity to participate in planning and facilitating learning activities in a multi-age early childhood program while also participating in a seminar. Students will observe and facilitate learning in a model early childhood setting and participate in ongoing written and verbal reflection to explore key teaching and learning issues. The course will focus on promoting student knowledge, skills, and dispositions in the areas of child observation and assessment, curriculum planning, child guidance, and integration of curriculum using a broad repertoire of teaching strategies. Level: Undergraduate

**EDEC 508 - Early Childhood Principles and Practices. 3 Credits.**

This course presents the foundation principles and practices of early childhood education (ages birth through eight). The main topics to be covered will include: the sociological, professional, and theoretical perspectives of early childhood education with a focus on developmentally appropriate practice (DAP); the skills and dispositions needed in planning and implementing early care and education programs for all children; and education models in early childhood. Students will assume a leadership role in this co-convened course (EDEC 408) to include class presentations of research papers. Level: Graduate

**EDEC 515 - Educational Professionals Working With Families Experiencing Adversity. 3 Credits.**

In this course, students will become familiar with the major theories and research regarding family crisis, resiliency, protective factors, and coping skills with an emphasis on the risk factors of poverty, addiction, violence, and disabilities. These will be examined through an educational lens and will include the impact of family adversity on child development and learning, the role of educational programs in supporting families facing adversity, and an in-depth examination of how the NAEYC Code of Ethics provides guidance in meeting the needs of children and families facing adversity. Students will select and implement an evidence-based family strengthening intervention and evaluate the effectiveness. Level: Graduate

**EDEC 520 - Meeting Standards Through Play-Based Environments. 3 Credits.**

This course features an in-depth examination of how early learning standards in all content areas (math, science, literacy, technology, physical education, and the arts) can be met through the design and facilitated use of play-based environments. Also examined will be the role of the teacher as environmental designer and facilitator of learning. In addition to advanced outcomes and assessment, students will develop and present information at an early childhood conference. Level: Graduate

**EDEC 530 - Social and Emotional Development in Young Children. 3 Credits.**

This course examines the development, components, and influences of social competence in the early childhood years (birth – 8). Positive guidance techniques that enhance children's self-esteem and pro-social skills will be taught. Students will examine and critique developmental theories, current literature, researched-based teaching strategies and assessment tools. Activities will focus on providing students opportunity to discuss, debate, analyze, and practice key foundations and skills. Students must plan for a minimum of 45 hours in an early childhood setting as well as planning and presenting a training session for parents and families. Level: Graduate

**EDEC 540 - Neuroscience and Its Impact on Child Development. 3 Credits.**

This course is an overview of research and methods in developmental cognitive neuroscience, including examination of typical and atypical brain development in the early childhood years. The role of experience, the range of plasticity, and influences such as early intervention will be some of the topics explored specific to early childhood teachers and professionals. Also examined will be neuroscientific claims and whether research supports, contradicts, or does not provide enough evidence to determine the accuracy of the claim. Level: Graduate

**EDEC 560 - Public Policy, Advocacy, and Leadership in Early Childhood Education. 3 Credits.**

Participants in this course will critically examine key policy issues facing early childhood and determine ways to engage in and lead others in informed, effective advocacy. The theories, research, and approaches to early care and education advocacy, leadership, and change will be studied and applied through the implementation of an advocacy project. Level: Graduate

**EDEC 591 - Special Topics. 1-9 Credits.**

(R-9) Offered intermittently. Experimental offerings of visiting professors, experimental offerings of new courses, or one-time offerings of current topics. Level: Graduate

**EDEC 595 - Early Childhood Fieldwork/Practicum. 3 Credits.**

This course provides students the opportunity to participate in planning, facilitating, and evaluating learning activities in an early childhood setting. Through the fieldwork and on-line seminar, course activities will focus on promoting student inquiry and analysis in the areas of child observation and assessment, curriculum planning, child guidance, and integration of curriculum using a broad repertoire of teaching strategies. Students are required to be based in an approved, accredited early childhood program for a minimum of 8 hours/week where they will video and present a teaching presentation in class. Level: Graduate

## Earth Systems (ERTH)

**ERTH 101N - Earth Systems Science. 3 Credits.**

Earth Systems Science provides a formal introduction to the interacting components of the Earth System, including the solid Earth, oceans, atmosphere, and biosphere, and the interconnectedness of these components with humans. Students will focus on the practices of geoscientific inquiry while exploring content related to the formation of and processes affecting the solid Earth, water, and climate.

Gen Ed Attributes: Natural Science

**ERTH 103N - Earth Systems Science Lab. 1 Credit.**

Prereq., or corequisite EARTH 101N or GEO 101N. The Earth Systems Science lab provides hands-on opportunities for students to practice geoscientific inquiry. Students will examine Earth materials and conduct experiments using models of Earth processes to explore the interconnected components of the Earth system, including the solid Earth, oceans, atmosphere, and biosphere, and the interactions of these components with humans.

Gen Ed Attributes: Natural Science Lab Course, Natural Science

**ERTH 191 - Special Topics. 1-18 Credits.**

(R-18) Offered intermittently. Experimental offerings of visiting professors, experimental offerings of new courses, or one-time offerings of current topics.

**ERTH 194 - Getting to Know Earth, Water, and Climate Science. 1 Credit.**

A First-Year Experience seminar for students in Earth, Water, and Climate Science.

**ERTH 303N - Weather and Climate. 3 Credits.**

Offered spring. Origin, composition, structure, and dynamics of the atmosphere, gas and radiation laws, energy budget and balance, weather elements, North American weather systems, and climate change. To succeed in this course students should have comfort with basic algebra.

Gen Ed Attributes: Natural Science

**ERTH 406 - Global Water Crises. 3 Credits.**

Offered spring. Prereq., WRIT 101 or WRIT 201 and EARTH 101N. This course examines the impacts of a changing climate and our human population on Earth's hydrologic system with an emphasis on global water-related crises such as flooding, groundwater depletion, and contamination. The course introduces students to scientific writing for various purposes and audiences while covering major processes that control changes in water reservoirs, the relationship between climate change and water form, flow, availability, and quality, and the effects of human activities on the global water cycle. Through regular practice, structured peer review, and class discussions, students will develop skills in information literacy, including finding, evaluating, analyzing, and synthesizing information effectively from diverse sources and using information ethically.

Gen Ed Attributes: Writing in the Disciplines

**ERTH 444 - Computational Methods in the Earth and Environmental Sciences. 3 Credits.**

Offered intermittently. This course is designed to familiarize students with computers and the use of computers as tools in the earth and environmental sciences. Students will gain a broad overview and practical experience in the fundamentals of writing computer programs and common techniques in the management, exploration, and analysis of environmental data. Emphasis will be on learning the fundamentals of mid-level languages for data analysis and modeling. The course de-emphasizes the mathematical complexities of the methodologies in favor of generating an intuitive understanding, but we will introduce some linear algebra and statistical concepts. Level: Undergraduate

**ERTH 530 - Hydrologic Modeling. 3 Credits.**

Offered intermittently. Prereq., GEO 420 or NRSM 385 and EARTH 444. This course will provide a general introduction to physical and mathematical modeling of surface and subsurface hydrologic processes. The course will focus on developing a process understanding, resulting physical and mathematical descriptions, and finally numerical simulation. The class will largely be hands-on and practice driven. Students will build models across the critical zone continuum - from atmospheric and surface processes through groundwater flow. Level: Graduate

## Economics (ECNS)

**ECNS 101S - Economic Way of Thinking. 3 Credits.**

Offered intermittently. A critical examination of the market mechanism as a social decision-making device to guide the use of a nation's resources. The limitations of these processes in light of current economic problems such as the rise of the large corporation, monopoly, environmental degradation, economic discrimination and the increasing role of the government.

Gen Ed Attributes: Social Sciences

**ECNS 191 - Special Topics. 1-6 Credits.**

(R-6) Offered intermittently. Experimental offerings of visiting professors, experimental offerings of new courses, or one-time offerings of current topics.

**ECNS 201S - Principles of Microeconomics. 3 Credits.**

Offered every term. The nature of a market economy, economic decisions of the household and firm, competition and monopoly, value and price determination, distribution of income and applied microeconomic topics.

Gen Ed Attributes: Social Sciences

**ECNS 202S - Principles of Macroeconomics. 3 Credits.**

Offered every term. The determination of the level of national economic activity, inflation, economic instability, the role of money and financial institutions, and selected topics in public economic policy.

Gen Ed Attributes: Social Sciences

**ECNS 217 - Issues in Economic Development. 3 Credits.**

Offered intermittently. Prereq., ECNS 201S. Study of the processes of economic growth and development in the less developed world.

**ECNS 301 - Intermediate Microeconomics with Calculus. 3 Credits.**

Offered autumn. Prereq., ECNS 201S; and M 162 or M 171. Analysis of consumer behavior, production, factor pricing, externalities and public goods.

**ECNS 302 - Intermediate Macroeconomics. 3 Credits.**

Offered spring. Prereq., ECNS 202S. Analysis of national income determination, unemployment, and inflation with emphasis on the role of fiscal and monetary policy.

**ECNS 312 - Labor Economics. 3 Credits.**

Offered intermittently. Prereq., ECNS 201S. Economic analysis of labor markets. Theories of wage determination, discrimination and poverty with implications for manpower policy.

**ECNS 313 - Money and Banking. 3 Credits.**

Offered intermittently. Prereq., ECNS 202S. Definition and role of money; banks and other financial institutions as suppliers of money; the federal reserve system as a regulator of money; monetary theories, history, and policy.

**ECNS 320 - Public Finance. 3 Credits.**

Offered intermittently. Prereq., ECNS 201S. Rationale for governmental expenditure; public goods; public choice. Analysis of expenditure policy. Intergovernmental relations.

**ECNS 325 - Economics of Sports. 3 Credits.**

Offered intermittently. Prereq., ECNS 201S. This course applies economic theories and tools to better understand the professional and amateur sports markets. Level: Undergraduate

**ECNS 391 - Special Topics. 1-9 Credits.**

(R-9) Offered intermittently. Experimental offerings of visiting professors, experimental offerings of new courses, or one-time offerings of current topics.

**ECNS 392 - Independent Study. 1-9 Credits.**

(R-9) Offered intermittently. Course material appropriate to the needs and objectives of the individual student.

**ECNS 398 - Internship. 1-6 Credits.**

(R-6) Offered intermittently. Extended classroom experience that provides practical application of classroom learning during placements off campus. Prior approval must be obtained from the faculty supervisor. A maximum of 6 credits of Internship (198, 298, 398, 498) may count toward graduation.

**ECNS 403 - Introduction to Econometrics. 4 Credits.**

Offered autumn. Quantitative methods in economics with emphasis on regression analysis. Level: Undergraduate-Graduate

**ECNS 405 - Game Theory. 3 Credits.**

Offered intermittently. Prereq., ECNS 201S. An introduction to the tools of game theory and how they are applied. In many real-world economic situations, outcomes are jointly determined where one agent's choices will affect another's welfare, and vice versa. Game theory provides a method of analyzing these economic situations where decisions are interrelated, and each agent recognizes this fact and thus makes decisions strategically. Level: Undergraduate-Graduate

**ECNS 406 - Industrial Organization. 3 Credits.**

Offered intermittently. Prereq., ECNS 201S. The theoretical basis for public policy solutions to market power. Emphasis on case studies in matters of antitrust, regulation of public utilities, and public ownership of business enterprises. Level: Undergraduate-Graduate

**ECNS 410 - Health Economics and Policy. 3 Credits.**

Prereq., ECNS 201S. This course applies microeconomic theory to understand how the incentives people face affect health behavior, the economics of infectious diseases, markets for health insurance, and determinants of health outcomes in the United States and other parts of the world. Level: Undergraduate-Graduate

**ECNS 431 - International Trade. 3 Credits.**

Offered intermittently. Prereq., ECNS 201S. International trade: theory, policy, institutions, and issues. Analysis of comparative advantage and trade restrictions, negotiations, and agreements. Level: Undergraduate-Graduate

**ECNS 433 - Economics of the Environment. 3 Credits.**

Offered intermittently. Prereq., ECNS 201S. Outlines a theoretical framework for the analysis of environmental problems, including concepts of market failure and externalities, materials balance and property rights. The policy implications of this analytical model are explored for a range of topics including pollution and the preservation of natural environments and species. Level: Undergraduate-Graduate

**ECNS 445 - International Environmental Economics & Climate Change. 3 Credits.**

Offered intermittently. Prereq., ECNS 201S. An introduction to the economics of various policy approaches towards climate change and other international environmental issues such as trans-boundary pollution problems, international trade and the environment and pollution haven hypothesis. Level: Undergraduate-Graduate

**ECNS 450 - Economics of Global Development. 3 Credits.**

Offered intermittently. Prereq., ECNS 201S. This course applies economic theory and empirical evidence to examine processes of global development and structural change, the challenges faced by individuals in poor countries, and the role of institutions in economic growth and poverty alleviation. Level: Undergraduate-Graduate

**ECNS 451 - Behavioral and Experimental Economics. 3 Credits.**

Prereq., ECNS 201S. An overview of experimental economics and behavioral economics. Outlines methods and instruments frequently used in economics experiments. Experimental design and assessment. Risk aversion, prospect theory, preference stability, and altruism. Level: Undergraduate-Graduate

**ECNS 481 - Communicating Economics. 3 Credits.**

Offered spring. Prereq., WRIT 101 or WRIT 201. In this course, students will integrate and apply the knowledge they have gained through the Economics major and develop their skills in communicating that knowledge. Students will apply economic theory and evidence to practical problems faced by themselves, policymakers, businesses or other economic agents. Students will practice identifying the economic principles behind observed problems or interesting phenomena, applying economic models to analyze these topics, and communicating this knowledge in different ways to a range of audiences. Additionally, students will learn to read academic research papers and synthesize the findings in order to answer practical questions. Level: Undergraduate Gen Ed Attributes: Writing in the Disciplines

**ECNS 491 - Special Topics. 1-9 Credits.**

(R-9) Offered intermittently. Experimental offerings of visiting professors, experimental offerings of new courses, or one-time offerings of current topics. Level: Undergraduate-Graduate

**ECNS 492 - Independent Study. 1-15 Credits.**

(R-15) Offered intermittently. Course material appropriate to the needs and objectives of the individual student. Level: Undergraduate-Graduate

**ECNS 494 - Senior Seminar. 2 Credits.**

Offered spring. Restricted to students with senior standing in Economics. Capstone course for Economics majors. Advanced topics in economic methodology, theory and/or public affairs. Level: Undergraduate

**ECNS 499 - Senior Thesis/Capstone. 2 Credits.**

Offered spring. Restricted to students with senior standing in Economics. Completion of a senior thesis and presentation of results by seminar participants. Level: Undergraduate Gen Ed Attributes: Writing in the Disciplines



**ECNS 501 - Graduate Research. 1-6 Credits.**

(R-6) Offered autumn and spring. Directed individual research and study appropriate to the background and objectives of the student. Level: Graduate

**ECNS 511 - Microeconomic Theory. 3 Credits.**

Offered autumn. Prereq., ECNS 301. Advanced theoretical treatment of consumer and producer behavior. Level: Graduate

**ECNS 513 - Macroeconomics and Forecasting. 3 Credits.**

Offered spring. Prereq., STAT 216. An overview of modern macroeconomics with an emphasis placed on modeling and forecasting. Level: Graduate

**ECNS 560 - Advanced Econometrics. 4 Credits.**

Offered spring. Prereq., ECNS 403. Advanced quantitative methods in econometrics. Coverage of probit-logit regression models, simultaneous equation system, and other specialized techniques. Level: Graduate

**ECNS 569 - Empirical Research Design. 1-3 Credits.**

(R-6) Offered spring. Role and scope of empirical research. Planning and conduct of a research project. Level: Graduate

**ECNS 591 - Special Topics. 1-9 Credits.**

(R-24) Offered intermittently. Experimental offerings of visiting professors, experimental offerings of new courses, or one-time offerings of current topics. Level: Graduate

**ECNS 592 - Independent Study. 1-9 Credits.**

(R-9) Offered intermittently. Course material appropriate to the needs and objectives of the individual student. Level: Graduate

**ECNS 598 - Internship. 1-9 Credits.**

(R-9) Offered intermittently. Extended classroom experience that provides practical application of classroom learning during placements off campus. Prior approval must be obtained from the faculty supervisor. Level: Graduate

**ECNS 599 - Thesis. 1-12 Credits.**

(R-20) Offered every term. Preparation of a thesis or manuscript based on research for presentation and/or publication. Level: Graduate

## Education K-12 (EDU)

**EDU 191 - Special Topics. 1-6 Credits.**

(R-6) Offered intermittently. Experimental offerings of visiting professors, experimental offerings of new courses, or one-time offerings of current topics.

**EDU 212 - Successful Education Abroad. 1 Credit.**

This course fully prepares students for their education abroad experience. Their health and safety preparations include insurance, safety and education abroad videos, presentations on health care issues abroad and addressing emotional well-being while away from home. The logistical preparations include information and assistance with student visa application process, as well as registration at UM and abroad, credit transfer and billing. The cultural component of the class includes more specifically learning about cultural theories, intercultural communication, cultural adaptation, culture shock and re-entry culture shock as well as panel and small group discussions with former U of M study abroad participants and international students. Student are required to complete five weekly journal entries, interview paper, and final host country research paper. This course also prepares the student to be an ambassador for the University of Montana, while abroad.

**EDU 222 - Educational Psychology and Child Development. 3 Credits.**

This course examines the psychology of learning as it applies to classroom teaching. Students will study learning and developmental theories, related instructional approaches, motivation in learning, intelligence and higher-level thinking, and diversity in schools. Learning environments are used as a lens to examine and critique theories and research in the social sciences.

Gen Ed Attributes: Social Sciences

**EDU 291 - Special Topics. 1-6 Credits.**

(R-6) Offered intermittently. Experimental offerings of visiting professors, experimental offerings of new courses, or one-time offerings of current topics.

**EDU 294 - Seminar/Workshop. 1-9 Credits.**

(R-9) A review and discussion of current research. Topics vary.

**EDU 331 - Literature & Literacy for Children. 3 Credits.**

Offered autumn and spring. Prereq., WRIT 101. Restricted to majors in Elementary Education, Early Childhood Education, and those in the Teacher Education Program. Genre survey, including cross-cultural literature, that focuses on responding to children's literature through reading, writing, listening, speaking, and activities that emphasize selecting literature, teaching critical thinking, and integrating literature into the elementary curriculum.

**EDU 339 - Teaching Assessment in PK-8 Language Arts. 3 Credits.**

Offered autumn and spring. Restricted to students admitted to the Teacher Education Program in Elementary Education. This class must be taken concurrently with Level 2 courses. Language development and primary and secondary language acquisition, theory and application of teaching and assessing listening, speaking, writing, and viewing in a PK-8 setting.

Gen Ed Attributes: Writing in the Disciplines

**EDU 340 - Classroom Management. 3 Credits.**

Offered autumn and spring. Restricted to students in the Teacher Education Program and Elementary Education. This course must be taken concurrently with Level 3 courses and is restricted to students who have completed coursework in Level 1 and 2. This course is designed to prepare pre-service teachers to set up a classroom, establish classroom policies and procedures and routines, establish and maintain cooperative relationships with parents, effectively provide feedback to students, motivate desired student behavior, and research professional literature to seek best classroom management practices to hone the craft of effective instruction.

**EDU 346 - Addressing the Needs of Diverse Learners. 3 Credits.**

Restricted to students in the Teacher Education Program. Recognizing the diversity present in today's classrooms, this course empowers educators to design and implement inclusive lessons that address the diverse needs of all students, including those with special needs and gifted learners. Participants will also gain insights into effective collaboration with specialists within schools and learn strategies for building strong partnerships with families to better meet the needs of diverse learners.

**EDU 360 - Promoting Wellbeing in P-12 Classrooms. 2 Credits.**

Offered autumn and spring. Prereq., Admission to the Teacher Education Program. This course is designed to increase students' awareness of the critical role teachers play in enhancing children's emotional, social, mental and physical health. In addition, students will be encouraged to explore the influence of family, community, and school environment on the prevention of substance use and abuse and on the well-being of children and adolescents.



**EDU 370 - Integrating Technology into Education. 3 Credits.**

Offered autumn and spring. Restricted to students in the Teacher Education Program. This course assumes that the student has general computer literacy skills. Integration and use of computer and other technologies in education.

**EDU 382 - Assessment, Curriculum, & Instruction. 3 Credits.**

Prereq., or corequisite EDU 222. Restricted to students admitted to the Teacher Education Program. Fundamental concepts of curriculum planning and assessment for classroom teachers, including connections to content standards, specific learning activities, and interdisciplinary concept development. Assessment fundamentals related to item construction, results interpretation, and connections to continuous improvement are addressed. Effective differentiation strategies are explored including discussions of higher-level thinking skills related to problem-solving, critical thinking skills, and creativity.

**EDU 391 - Special Topics. 1-6 Credits.**

(R-6) Offered intermittently. Experimental offerings of visiting professors, experimental offerings of new courses, or one-time offerings of current topics.

**EDU 392 - Independent Study. 1-9 Credits.**

(R-9) Offered autumn and spring. Course material appropriate to the needs and objectives of the individual student.

**EDU 394 - Seminar/Workshop. 1-9 Credits.**

(R-9) A review and discussion of current research. Topics vary.

**EDU 395 - Clinical Experience. 1 Credit.**

(R-4) Offered autumn and spring. Restricted to students in the Teacher Education Program. Arranged clinical experience and seminar focusing on applying content from the co-requisite courses. This course number is used for multiple clinical experiences. Check the class schedule or with your advisor regarding the appropriate section. Elementary Education Majors: EDU 395 Clinical Experience Level 1 must be taken concurrently with Level 1 courses. EDU 395 Clinical Experience Level 2 must be taken concurrently with Level 2 courses. EDU 395 Clinical Experience Level 3 must be taken concurrently with Level 3 courses. Secondary and K-12 Licensure Students: EDU 395 Clinical Experience K-12 I must be taken concurrently with EDU 444 Classroom Management in Secondary Schools. EDU 395 Clinical Experience K-12 must be taken concurrently with content-specific methods course.

**EDU 397 - Methods: Teaching & Assessing. 3 Credits.**

(R-15) Offered autumn and spring. Restricted to students in the Teacher Education Program. This course number is used for multiple methods courses. Check the class schedule or with your advisor regarding appropriate sections. PK-4 Early Numeracy: Offered autumn and spring. This class must be taken concurrently with Level 1 courses and is restricted to students who have been admitted to the Elementary Education program. Students will learn mathematics concepts, methods of instruction, and the use of instructional materials appropriate for grades K-4 including the use of state and national standards for mathematics, appropriate technology, and manipulatives. Additionally, students will learn techniques for assessing the effectiveness of the counting and cardinality, operations and algebraic thinking, numbers and operations, measurement and data, and geometry. PK-3 Early Literacy: Offered autumn and spring. This class must be taken concurrently with Level 1 courses and is restricted to students who have been admitted to the Elementary Education program. The purpose of this course is to develop an understanding of emergent literacy and beginning reading and to examine developmentally appropriate methods of teaching and assessing reading to children in grades K-3.

**EDU 407E - Ethics & Policy Issues. 3 Credits.**

Offered every term. Prereq., EDU 395. Restricted to students in the Teacher Education Program. Practical application of ethical principles of the teaching profession. Analysis of the American public school and major policy issues from historical, legal, political, social as well as ethical perspectives. Level: Undergraduate-Graduate  
Gen Ed Attributes: Ethical & Human Values

**EDU 421 - Statistical Procedures in Education. 3 Credits.**

Prereq., M 115. Concepts and procedures characterizing both descriptive and inferential statistics. Awareness of common statistical errors. Level: Undergraduate-Graduate

**EDU 432 - Literature & Literacy for Young Adults. 3 Credits.**

Offered spring. Genre surveys; extensive reading, and analyzing of literature, authors and media addressed to students ages 12-18. Emphasizes effective teaching strategies for using high quality literature with middle school and secondary students. Not a substitute for EDU 331. Level: Undergraduate-Graduate

**EDU 438 - Literacy Assessment, Diagnosis, & Instruction. 3 Credits.**

Offered spring. Students should have prior coursework in reading methods and pedagogy. Based on the analytic process, emphasis on assessing, identifying, and devising instructional strategies to meet students' reading/writing strengths and needs. Level: Undergraduate-Graduate

**EDU 444 - Classroom Management in Secondary Schools. 3 Credits.**

Coreq., EDU 395. Restricted to students in the Teacher Education Program. This course explores methods for maximizing student success by engaging students in a positive learning environment. Topics include building positive relationships with students, cultivating a culturally congruent classroom environment, fostering a productive classroom community, engaging and motivating students, working effectively with students' parents and family, safety in the secondary classroom, optimizing a classroom's physical arrangement, responding to student behaviors, and conflict resolution. Level: Undergraduate/Graduate

**EDU 455 - Workshop. 1-6 Credits.**

(R-6) Offered intermittently. Special courses experimental in nature dealing with a relatively narrow, specialized topic of particular current interest. Credit not allowed toward an undergraduate degree. Level: Undergraduate

**EDU 461 - Introduction to Gifted/Talented Education. 3 Credits.**

This course provides a broad examination of the historical and philosophical perspectives of education for gifted and talented learners with emphasis on answering the question "What is giftedness?" Issues explored in the course include broad coverage of identification procedures, psychosocial correlates of gifted learners, the nature of intelligence and creativity, instructional options, laws/policies, and current research findings. Level: Undergraduate

**EDU 462 - Social and Emotional Development of Gifted and Talented Learners. 3 Credits.**

This course provides an overview of current theory and evidence-based practices in understanding the social and emotional development of gifted learners. Topics discussed in class range from research findings addressing social and emotional health and needs of the general population of gifted students to the unique needs of specific sub-groups of gifted students (e.g., gifted girls, gifted and learning disabled, highly creative students, traditionally underrepresented gifted students). Also discussed are guidance, counseling, self-concept and adjustment concerns of gifted students. Level: Undergraduate

**EDU 472 - Development of Digital Rich Workplace. 3 Credits.**

Offered spring. Prereq., CSCI 172. Project-based course to gain understanding and the ability to use web development tools to create a functional, well-designed web project. Additional topics/projects include: Web 2.0+ tapping the potential of digital tool; social media educational and business uses; gamification in education and business, and introductory electronic game development for the classroom and the boardroom. Level: Undergraduate-Graduate

**EDU 481 - Content Area Literacy. 3 Credits.**

Offered autumn and spring. Restricted to students in the Teacher Education Program. Theories, models, instructional approaches for using literacy for learning in content fields. Emphasis on research, instructional practice, classroom assessment, multicultural and discipline integration. Level: Undergraduate-Graduate

**EDU 491 - Special Topics/Experimental Courses. 1-6 Credits.**

(R-6) Offered intermittently. Special courses experimental in nature dealing with a relatively narrow, specialized topic of particular current interest. Credit not allowed toward a graduate degree. Level: Undergraduate-Graduate

**EDU 492 - Independent Study. 1-6 Credits.**

(R-12) Offered every semester. Course material appropriate to the needs and objectives of the individual student. Level: Undergraduate-Graduate

**EDU 494 - Seminar. 1-9 Credits.**

(R-9) A review and discussion of current research and issues in education. Topics vary. Level: Undergraduate-Graduate

**EDU 495 - Student Teaching. 1-14 Credits.**

(R-28) Offered autumn and spring. Restricted to students in the Teacher Education Program. Arranged capstone clinical experience required for all professional licensure students. Students must have completed all required field experiences and methods courses and an application to student teach prior to registration. In addition, Elementary Education majors must have completed all coursework in all previous levels. Secondary and K-12 licensure students must have completed at least two-thirds of content coursework and receive approval by departments in their major and minor content areas. Level: Undergraduate

**EDU 497 - Teaching and Assessing. 3-4 Credits.**

(R-15) Offered autumn and/or spring. Restricted to students in the Teacher Education Program. This course number is used for multiple elementary and secondary methods courses. Check the class schedule or with your advisor regarding appropriate sections. 5-8 Mathematics: 3 cr. Offered autumn and spring. This class must be taken concurrently with Level 3 courses and is restricted to students who have completed coursework in Levels 1 & 2. Methods of teaching, assessing, and evaluating mathematics in the 5-8 middle grades including number and operations, rational numbers, ratio and proportion, measurement, algebra, expressions and equations, geometry, probability, statistics, and functions. K-8 Social Studies: 3 cr. Offered autumn and spring. This class must be taken concurrently with Level 3 courses and is restricted to students who have completed coursework in Levels 1 & 2. Emphasis on developing teaching and assessing social studies teaching/learning opportunities that incorporate literature, primary sources and other developmentally appropriate activities. Overarching themes address diversity, integration across the curriculum and understanding state and national curriculum standards. K-8 Science: 3 cr. Offered autumn and spring. This class must be taken concurrently with Level 3 courses and is restricted to students who have completed coursework in Levels 1 & 2. Emphasis on developing, teaching, and assessing science teaching/learning opportunities that are inquiry-based, developmentally appropriate, integrated across the curriculum, and aligned with state and national curriculum standards. 4-8 Reading: 3 cr. Offered autumn and spring. This class must be taken concurrently with Level 3 courses and is restricted to students who have completed coursework in Levels 1 & 2. Preparation for teaching reading in a 4-8 setting so that all students are successful. Emphasis on reading to learn. Focus on using assessment to guide instruction, learning from trade books, textbooks, and electronic texts, activating prior knowledge, studying texts, and developing student enthusiasm for reading. 5-12 Science: 3 cr. Offered autumn. Methods of teaching science in the middle and secondary school. This course emphasizes the use of inquiry, problem-solving, appropriate use of technology, and assessment techniques that align with state and national curriculum standards. 5-12 Social Studies: 3 cr. Offered autumn. Foundations and purpose of the middle and secondary social studies curriculum. Elements of curricular design, including instructional methods, materials and assessment. 5-12 Mathematics 3 cr. Offered autumn. Methods for teaching mathematics in grades 5-12 focusing on presentation of mathematics concepts and procedures through models, problem solving, and technology. Development of instructional strategies and classroom organizational models, discourse in the classroom, and multiple means for assessing student progress. 5-12 Business Subjects: 4 cr. Offered autumn. Methods for teaching business subjects in grades 5-12 focusing on content-specific topics in business, marketing, and information technology to include: instructional planning; effective teaching strategies (F2F & online); multiple means for assessing student progress; classroom management; and the relationship of the content area to standards-based curricula. Computer Science 5-12 Offered autumn. Teaching and Assessing Computer Science is the capstone course for students pursuing careers as professional educators in K-12 school systems. This course presents best practices in pedagogy for teaching and assessing 5-12 students in computer science. Level: Undergraduate-Graduate

**EDU 501 - Curriculum Design, Implementation, & Evaluation. 3 Credits.**

Underlying principles of design, factors affecting implementation, and evaluation and assessment of P-12 curricula at the student and program levels. Level: Graduate

**EDU 502 - Philosophy of Education. 3 Credits.**

Restricted to graduate students in Educational Leadership, Counselor Education, or Teaching and Learning. Same as EDLD 502. Major philosophical schools of thought and leading proponents of each. Concepts of society, the educative process, and the role of education. Level: Graduate

**EDU 504 - History of American Education. 3 Credits.**

Exploration of the ideas, individuals, and events that have influenced the curriculum, pedagogy, and operation of the American public school, from colonial America to the present time. Level: Graduate

**EDU 510 - Developmental & Learning Sciences. 3 Credits.**

This is an advanced course that addresses application of psychological concepts in educational settings. This course will focus on theories of development, teaching and learning, and on applications of psychological research to learning, primarily to classroom settings. Level: Graduate

**EDU 514 - Education Across Cultures. 3 Credits.**

Educational foundations of the study of diversity in American schools. Level: Graduate

**EDU 515 - Computer/Technological Application in Education. 3 Credits.**

Students registering should have demonstrated computer literacy. Computer systems and other hardware utilizing various software applications by administrators, counselors, librarians, teachers, and students. Level: Graduate

**EDU 518 - Inclusion and Collaboration. 3 Credits.**

Legal and ethical issues involved in the responsible inclusion of all individuals with disabilities through multi-disciplinary and collaborative efforts. Level: Graduate

**EDU 519 - Analysis of Education Data. 3 Credits.**

Focus on assessment practices in K-12 classrooms including a wide variety of assessments that meet curricular objectives as well as nationally required standardized exams to meet NCLB mandates. Level: Graduate

**EDU 520 - Educational Research. 3 Credits.**

Offered every term. Same as EDLD 520 and HHP 520. Restricted to graduate students in Educational Leadership, Counselor Education, or Teaching and Learning. An understanding of basic quantitative and qualitative research methodology and terminology, particularly as they are used in studies presented in the professional literature. Level: Graduate

**EDU 521 - Found Environmental Education. 3 Credits.**

Offered autumn. Same as ENST 521. Problem-solving approach to environmental education; problem identification, research and design and implementation of an educational approach to selected environmental issues. Level: Graduate

**EDU 524 - Family and Diversity Issues. 3 Credits.**

An overview of different approaches, current issues, and problems involved in working with and supporting families including families from diverse backgrounds. Emphasis is placed on how a child with disabilities affects and is affected by parents, siblings, the extended family, and the community. Strategies for effective communication for the purpose of information sharing and collaborative planning with families are provided. Level: Graduate

**EDU 525 - Teaching Environmental Science. 1-3 Credits.**

(R-6) Offered spring even-numbered years. Identification and examination of potential solutions to environmental problems and their impact on society. Major emphasis on teaching methods as they apply to environmental science. Level: Graduate

**EDU 527 - Disciplinary Literacy Strategies. 3 Credits.**

Offered autumn. Students registering for this course should have prior teaching experience. Advanced theories, models, instructional approaches for using reading/writing for learning in content fields. Emphasis on research, instructional practice, and classroom assessment. Level: Graduate

**EDU 530 - Trends & Research in Reading and Writing. 3 Credits.**

Offered summer odd-numbered years. Survey of current research related to literacy practices in schools/communities. Theories, models, politics of literacy in K-12/Adult education. Level: Graduate

**EDU 534 - Foundation and Principles of International Baccalaureate Programs. 3 Credits.**

This course is designed to provide students with an in-depth knowledge of the foundation and principles of International Baccalaureate Programs. Participants will examine the IB learner profile, the philosophical and pedagogical theories underpinning IB programs, the curriculum framework of the three IB Programs, Primary Years Program (PYP), Middle Years Program (MYP), and Diploma Program (DP), and the role of collaboration and reflection in IB schools. Level: Graduate

**EDU 535 - Teaching and Learning in International Baccalaureate Programs. 3 Credits.**

Prereq., EDU 534. This course explores theory and practice of teaching and learning in IB programs. Participants will study the main learning theories underpinning IB curricular programs, examine examples of lesson plans for each IB program, learn strategies to differentiate instruction, participate in collaborative planning and instructional design, and engage in reflective practices. This course requires a fieldwork experience in IB schools. Level: Graduate

**EDU 536 - Assessment and Learning in International Baccalaureate Programs. 3 Credits.**

Prereq., EDU 534 and EDU 535. This course examines the critical role of assessment in IB programs. It addresses both formative and summative assessments as an integral part of the IB curriculum. Participants will learn how to design assessments and create effective feedback strategies based on the learning needs of students. This course requires fieldwork experience in IB schools. Level: Graduate

**EDU 540 - Language Arts Pedagogy and Practice. 3 Credits.**

Students registering should have prior teaching experience. Advanced theories and instructional approaches for teaching and assessing literacy. Level: Graduate

**EDU 541 - Genre Studies. 3 Credits.**

The purpose of this course is to explore, in depth, several literary genres and to move from a survey approach to an intense focus on the variety of books and poems written for children and young adults. Particular attention will be given to research, authors, and awards in each of the following genres: science fiction, historical fiction, contemporary fiction, modern fantasy, non-fiction, graphic novels and poetry Level: Graduate

**EDU 542 - Supervising/Teaching Math. 3 Credits.**

Offered summer odd-numbered years. Curriculum trends, instructional materials, research and supervisory techniques relevant to a modern school mathematics program. Level: Graduate

**EDU 548 - Supervising/Teaching Environmental Education. 3 Credits.**

Offered spring. Same as ENST 548. Design, selection, and evaluation of materials for the teaching of environmental education. Level: Graduate

**EDU 552 - Models of PD Math/Science. 3 Credits.**

Exploration of various models of professional development and the development of implementation plans for workshops and in-service professional development in science and mathematics. Level: Graduate

**EDU 555 - Workshop. 1-6 Credits.**

(R-6) Offered intermittently. Special courses experimental in nature dealing with a relatively narrow, specialized topic of particular current interest. Credit not allowed toward a graduate degree. Level: Graduate

**EDU 557 - Advanced Literacy Practicum K-12. 3 Credits.**

Prereq., EDU 438. Based on readers' literacy strengths and needs, practitioners conduct assessments and use data to design, implement, and reflect on instruction for students in grades K-12. Course members also build practices related to literacy leadership and advocacy. Level: Graduate

**EDU 560 - Response to Intervention. 3 Credits.**

Review of evidence-based assessment and instruction techniques in all basic academic areas. Advanced application of general outcome and curriculum-based measures and alignment of these assessments to interventions. Preparation in service as a leader for the implementation of school-wide prevention models. A practicum is required. Level: Graduate

**EDU 561 - Introduction to Gifted/Talented Education. 3 Credits.**

This course provides a broad examination of the historical and philosophical perspectives of education for gifted and talented learners with emphasis on answering the question "What is giftedness?" Issues explored in the course include broad coverage of identification procedures, psychosocial correlates of gifted learners, the nature of intelligence and creativity, instructional options, laws/policies, and current research findings. Level: Graduate

**EDU 562 - Social and Emotional Development of Gifted and Talented Learners. 3 Credits.**

This course provides an overview of current theory and evidence-based practices in understanding the social and emotional development of gifted learners. Topics discussed in class range from research findings addressing social and emotional health and needs of the general population of gifted students to the unique needs of specific sub-groups of gifted students (e.g., gifted girls, gifted and learning disabled, highly creative students, traditionally underrepresented gifted students). Also discussed are guidance, counseling, self-concept and adjustment concerns of gifted students. Level: Graduate

**EDU 563 - Methods and Curriculum for the Gifted and Talented. 3 Credits.**

This is an advanced course in the education of gifted, talented, and creative students which focuses on (1) development of curriculum shown to be effective for gifted learners, and (2) implementation of teaching practices centered on discipline-based knowledge, learning styles, cultural variation, depth and complexity of content, and provisions for case-based, authentic and independent investigation. Level: Graduate

**EDU 564 - Planning Programs for the Gifted and Talented. 3 Credits.**

This is an advanced course in the education of gifted, talented, and creative students which addresses program models supported by research, and focuses on the fundamental principles of program design and development for gifted learners. The role of program evaluation and the use of program evaluation models are also stressed. Level: Graduate

**EDU 570 - Instructional Technology Found. 3 Credits.**

General introduction to the field, theory, and profession of instructional technology. Definition of instructional technology; history of the field. Level: Graduate

**EDU 571 - Education, Technology, and Media. 3 Credits.**

Principles and practices of instructional design for integration of educational technology. Emphasis on role of technology in contemporary teaching/learning/assessing theory and practice, including learning styles and multiple intelligences. Level: Graduate

**EDU 580 - Distance Learning: Theory & Implementation. 3 Credits.**

Restricted to graduate students in Educational Leadership, Counselor Education, or Teaching and Learning. Introduction to distance learning models and exploration of satellite and computer-mediated course development, implementation, and evaluation. Level: Graduate

**EDU 581 - Planning & Management for Technology in Education. 3 Credits.**

Restricted to graduate students in Educational Leadership, Counselor Education, or Teaching and Learning. Creating, implementing, maintaining, and evaluating technology plans for educational institutions, including budgets, facilities, and hardware planning. Level: Graduate

**EDU 582 - Education Technology Trends & Issues. 3 Credits.**

Exploration of trends and issues in the use of educational technology in a variety of settings. Level: Graduate

**EDU 584 - Authentic Applications of Instructional Design. 3 Credits.**

Development of practical competencies in such components of instructional technology as development, production, materials evaluation, and project management and implementation. Level: Graduate

**EDU 588 - Action Research in Classroom. 3 Credits.**

Readings in research in teaching/learning. Strategies to implement all components of an action research project in a classroom including planning/research design, action, reflection, and sharing. Level: Graduate

**EDU 589 - Professional Project. 3 Credits.**

Culminating course in online master's program. Students demonstrate connections across content areas through a mini-thesis, research-based product that is shared with other professionals through a publication and/or presentation at a conference or workshop. Level: Graduate

**EDU 590 - Research. 1-9 Credits.**

(R-9) Offered every term. Independent research under the direction of a faculty member. Level: Graduate

**EDU 591 - Special Topics. 1-9 Credits.**

(R-9) Offered intermittently. Experimental offerings of visiting professors, experimental offerings of new courses, or one-time offerings of current topics. Level: Graduate

**EDU 592 - Independent Study. 1-6 Credits.**

(R-18) Offered autumn and spring. Course material appropriate to the needs and objectives of the individual student. Level: Graduate

**EDU 594 - Seminar. 1-9 Credits.**

(R-9) A review and discussion of current research and issues in education. Topics vary. Level: Graduate

**EDU 595 - Clinical/Practicum. 1-6 Credits.**

(R-10) Extended classroom experience which provides practical application of classroom learning. Level: Graduate

**EDU 598 - Internship. 1-9 Credits.**

(R-9) Offered every term. Extended classroom experience that provides practical application of classroom learning during placements off campus. Prior approval must be obtained from the faculty supervisor. Level: Graduate

**EDU 599 - Professional Project/Thesis. 3 Credits.**

Capstone in master's program. Students demonstrate connections across content areas through a mini-thesis, research-based product that is shared with other professionals through a publication and/or presentation at a conference or workshop. Level: Graduate



**EDU 630 - Special Topics in Literacy. 1-3 Credits.**

(R-3) Offered intermittently. Prereq., consent of instr. Should be taken in conjunction with or immediately prior to comprehensive examinations. In-depth coverage of selected topics in reading and writing related to current literacy issues and practices. Level: Graduate

**EDU 652 - Issues of Curriculum & Instruction. 3 Credits.**

Offered autumn odd-numbered years. Prereq., EDU 501. Curricular and instructional decision making and process, innovation and change, trends and reforms. Controversial issues in education and society related to K-12 curriculum and motivation. Level: Graduate

**EDU 690 - Advanced Research. 1-9 Credits.**

(R-9) Offered intermittently. Independent research under the direction of a faculty member. Level: Graduate

**EDU 691 - Special Topics. 1-6 Credits.**

(R-24) Offered intermittently. Experimental offerings of visiting professors, experimental offerings of new courses, or one-time offerings of current topics. Level: Graduate

**EDU 694 - Advanced Seminar in Curriculum & Instruction. 1-9 Credits.**

(R-9) Offered intermittently. A review and discussion of current research. Topics vary. Level: Graduate

**EDU 699 - Dissertation. 1-10 Credits.**

(R-10) Offered every term. Preparation of a dissertation or manuscript based on research for presentation and/or publication. Credit/No Credit grading only. Level: Graduate

## Library Media (LIBM)

**LIBM 461 - Information Literacy. 3 Credits.**

Offered spring, online only. Students learn instructional techniques for teaching information literacy skills, including critical thinking skills and the use of process models for conducting research. This course emphasizes librarians as school leaders in initiating standards-based collaborative and cross-disciplinary information literacy instruction. Level: Undergraduate-Graduate

**LIBM 462 - Youth Literature for Librarians. 3 Credits.**

Offered spring, online only. Students read award-winning youth literature books and develop strategies for facilitating K-12 students in using fiction and non-fiction works for academic research and for the pursuit of personal interests. Students curate literature lessons to be used in collaboration with classroom teachers. Level: Undergraduate-Graduate

**LIBM 464 - Reference Resources. 3 Credits.**

Offered autumn, online only. This course focuses on the use, selection, and evaluation of print and electronic reference resources. Students learn methods of teaching advanced search strategies and the ethical use of information. Level: Undergraduate-Graduate

**LIBM 466 - Libraries & Technology. 3 Credits.**

Offered summer, online only. Students explore and master established and emerging technologies commonly used in library administration and instruction. This course emphasizes digital citizenship and digital ethics. Level: Undergraduate-Graduate

**LIBM 467 - Collection Development & Cataloging. 4 Credits.**

Offered autumn, online only. Students study the development of policies and procedures for selecting, processing, cataloging and maintaining physical and electronic materials in the school library. Students learn about the elements of standard library cataloging using Dewey classification, Library of Congress and Sears subject headings, and the creation of records for the library management system. Level: Undergraduate-Graduate

**LIBM 468 - Administration & Assessment of Library Programs. 3 Credits.**

Offered summer, online only. This course explores administration and management of the school library space, materials, budget, and programs. Students learn strategies for assessing library program in terms of effectiveness, instructional collaboration, and district support, using state, regional and national guidelines for library programs and services. Level: Undergraduate-Graduate

**LIBM 491 - Special Topics. 1-6 Credits.**

(R-9) Offered intermittently. Experimental offerings of visiting professors, experimental offerings of new courses, or one-time offerings of current topics. Level: Undergraduate-Graduate

**LIBM 492 - Independent Study. 1-3 Credits.**

(R-6) Offered every term. Course material appropriate to the needs and objectives of the individual student. Level: Undergraduate-Graduate

**LIBM 495 - Practicum. 2 Credits.**

Offered spring and summer. In supervised field experiences in one or more libraries, student work is guided by an individualized training plan that outlines objectives and activities for the course. The practicum includes coursework outside of the field experiences, including a final portfolio of accomplishments. Level: Undergraduate-Graduate

## Education K-12: Special Education (EDSP)

**EDSP 403 - Introduction to Early Childhood Special Education. 3 Credits.**

Offered autumn even-numbered years. The course provides an introduction to early childhood special education, including transdisciplinary assessment, working with families of young children, developing and implementing IFSPs, and principles in selecting and adapting early childhood curriculum materials for young children with disabilities. Evidence-based teaching strategies for young children are also introduced. Level: Undergraduate-Graduate

**EDSP 405 - Assessment of Students with Exceptionalities. 3 Credits.**

Focus on a variety of assessment procedures for students who qualify for Special Education services. A variety of assessments and assessment techniques will be taught, with a strong emphasis on the use of ecologically valid assessment tools. Specific measurement skills will be taught including observation skills. Field experience is required. Level: Undergraduate-Graduate

**EDSP 426 - Introduction to Transition & Community. 3 Credits.**

Introduction to issues and strategies for preparing adolescents and young adults with disabilities for the transition from school to future careers, post-secondary education, and other post-school environments. These issues are discussed within the context of more global efforts to create school-to-career programs in school settings for all students. A field experience is required. Level: Undergraduate

**EDSP 454 - Advanced Academic Interventions. 3 Credits.**

Evidence-based assessment and instruction techniques in all basic academic areas. Particular focus on general outcome and curriculum-based measures and the alignment of these and other assessments to interventions. A field experience is required. Level: Undergraduate-Graduate



**EDSP 456 - Introduction to Methods for Low Incidence Disabilities. 3 Credits.**

Offered spring. Introduction to research-based methods of instruction for students with low incidence disabilities in basic communication, mobility, sensory, and social skills, as well as academic skills (especially literacy and general education curricular access). An introduction to augmentative and alternative communication (AAC) and assistive technology (AT) is also addressed. A field experience is required. Level: Undergraduate

**EDSP 461 - Positive Behavior Supports. 3 Credits.**

Offered spring. In-depth study of the principles and procedures for managing problem behaviors with an emphasis on prevention and classroom management. A field experience is required. Level: Undergraduate-Graduate

**EDSP 462 - Special Education Law, Policy, and Practice. 3 Credits.**

Offered autumn and even-numbered summers. Historic and current perspectives on laws, policies and practices of the special education and related fields. Coverage of all aspects of the special education process including collaborative practices. Level: Undergraduate-Graduate

**EDSP 491 - Special Topics/Experimental Courses. 1-3 Credits.**

(R-9) Offered intermittently. Experimental offerings of visiting professors, experimental offerings of new courses, or one-time offerings of current topics. Level: Undergraduate-Graduate

**EDSP 494 - Seminar. 1-9 Credits.**

(R-9) Offered intermittently. A review and discussion of current research. Topics vary. Level: Undergraduate-Graduate

**EDSP 495 - Student Teaching: Special Education. 1-10 Credits.**

Offered autumn and spring. Students should have completed all courses in the special education minor with a grade of B or higher prior to registration. Supervised field experience in special education. Level: Undergraduate-Graduate

**EDSP 526 - Transition & Community Support. 3 Credits.**

Focus on issues and strategies for preparing adolescents and young adults with disabilities for the transition from school to future careers.

These issues are discussed within the context of more global efforts to create school-to-career programs in school settings for all students. Level: Graduate

**EDSP 556 - Methods of Low Incidence Disabilities. 3 Credits.**

Offered spring. Focus on research-based methods of instruction for students with low incidence disabilities in basic communication, mobility, sensory, and social skills, as well as academic skills (especially literacy and general education curricular access). An introduction to augmentative and alternative communication and life quality today and in the future. An introduction to augmentative and alternative communication (AAC) and assistive technology (AT) is also addressed. A field experience is required. Level: Graduate

**EDSP 591 - Special Topics/Experimental Courses. 1-3 Credits.**

(R-9) Offered intermittently. Experimental offerings of visiting professors, experimental offerings of new courses, or one-time offerings of current topics. Level: Graduate

**EDSP 594 - Seminar. 1-9 Credits.**

(R-9) Offered intermittently. A review and discussion of current research. Topics vary. Level: Graduate

## Educational Leadership (EDLD)

**EDLD 486 - Statistical Procedures in Education. 3 Credits.**

Offered autumn. Prereq., M 115. Concepts and procedures characterizing both descriptive and inferential statistics. Awareness of common statistical errors. Level: Undergraduate-Graduate

**EDLD 491 - Special Topics. 1-9 Credits.**

(R-9) Experimental offerings of visiting professors, experimental offerings of new courses, or one-time offerings of current topics. Level: Undergraduate-Graduate

**EDLD 502 - Philosophy of Education. 3 Credits.**

Restricted to graduate students in Educational Leadership, Counselor Education, or Teaching and Learning. Same as EDU 502. Major philosophical schools of thought and leading proponents of each. Concepts of society, the educative process, and the role of education. Level: Graduate

**EDLD 519 - Measurement and Analysis of Educational Data. 3 Credits.**

Restricted to graduate students in Educational Leadership, Counselor Education, or Teaching and Learning. Explanation and practice in measurement and statistical analysis of educational data. Preparation in measurement and statistical analysis for educational research. Level: Graduate

**EDLD 520 - Educational Research. 3 Credits.**

Offered every term. Same as EDU 520 and HHP 520. Restricted to graduate students in Educational Leadership, Counselor Education, or Teaching and Learning. An understanding of basic quantitative and qualitative research methodology and terminology, particularly as they are used in studies presented in the professional literature. Level: Graduate

**EDLD 540 - Higher Education Finance. 3 Credits.**

Restricted to graduate students in Educational Leadership, Counselor Education, or Teaching and Learning. Overview of how colleges and universities make financial and budgetary decisions; current trends in state and federal policy related to finance; contemporary problems in finance of education. Level: Graduate

**EDLD 542 - The College Student. 3 Credits.**

Restricted to graduate students in Educational Leadership, Counselor Education, or Teaching and Learning. Survey of today's college student including discussion of demographics, student development theories, learning theories, and contemporary issues on college campuses related to college students. Level: Graduate

**EDLD 544 - The College Curriculum. 3 Credits.**

Restricted to graduate students in Educational Leadership, Counselor Education, or Teaching and Learning. Historical and contemporary development of college and university curriculum. Includes overview of pedagogical strategies, assessment, evaluation, and curricular change. Level: Graduate

**EDLD 546 - Federal & State Higher Education Policy. 3 Credits.**

Restricted to graduate students in Educational Leadership, Counselor Education, or Teaching and Learning. Overview of policies at the local, state, and national levels that affect the conduct of higher education; current trends in higher education policy; changes in educational policy; how policies affect different institutional types. Level: Graduate

**EDLD 550 - Foundations of Educational Leadership. 3 Credits.**

Restricted to graduate students in Educational Leadership, Counselor Education, or Teaching and Learning. Basic functions of K-12 administration and supervision and how contemporary views have evolved; models of leadership style and practice compared; responsibilities and relationships of school boards and chief school officers. Level: Graduate

**EDLD 551 - Foundations of Curriculum Leadership. 3 Credits.**

Restricted to graduate students in Educational Leadership, Counselor Education, or Teaching and Learning. The history and theoretical bases of current K-12 curriculum and instructional leadership. Level: Graduate

**EDLD 552 - Supervision and Evaluation of Public School Educators. 3 Credits.**

Restricted to graduate students in Educational Leadership, Counselor Education, or Teaching and Learning. Conflicting views and models of supervision; supervision in relation to administration and evaluation. Development of instruments for the formative and summative evaluation of teaching and their use in simulated cases. Level: Graduate

**EDLD 554 - School Law. 3 Credits.**

Restricted to graduate students in Educational Leadership, Counselor Education, or Teaching and Learning. Key Montana and national legislation regarding public education. Landmark cases of the U.S. Supreme Court and other federal, regional, and state courts as they affect the operation of public schools and the rights of school board members, administrators, teachers, students, and parents. Level: Graduate

**EDLD 556 - Finance of Public Education. 3 Credits.**

Restricted to graduate students in Educational Leadership, Counselor Education, or Teaching and Learning. Revenue sources for K-12 public schools; proper expenditures; Montana's foundation program and related legislation; major court cases and how they have affected ways of funding schools; developing effective school and district budgets. Level: Graduate

**EDLD 559 - School Public Relations: Principals. 3 Credits.**

Restricted to graduate students in Educational Leadership, Counselor Education, or Teaching and Learning. Investigation of the appropriate leadership and management roles of the modern school principal as they relate to public relations. Understanding of political theory as it relates to developing and maintaining relationships with internal and external publics. Level: Graduate

**EDLD 567 - K-12 Leadership. 3 Credits.**

Restricted to graduate students in Educational Leadership, Counselor Education, or Teaching and Learning. Examination of the roles responsibilities, and relationships of educators relative to management and leadership considerations at all levels of the educational organization (elementary, middle, secondary, and central office). Level: Graduate

**EDLD 568 - K-12 Curriculum. 3 Credits.**

Restricted to graduate students in Educational Leadership, Counselor Education, or Teaching and Learning. Major aspects of curriculum related to the duties and responsibilities of school administrators. Issues related to the development, review and evaluation of curriculum. Exploration of issues related to selected instructional models and practices; school improvement. Level: Graduate

**EDLD 583 - Strategic Planning For Technology. 3 Credits.**

Restricted to graduate students in Educational Leadership, Counselor Education, or Teaching and Learning. Leadership and strategic planning processes for technology integration within schools. Level: Graduate

**EDLD 590 - Research. 1-9 Credits.**

(R-9) Restricted to graduate students in Educational Leadership, Counselor Education, or Teaching and Learning. Independent research under the direction of a faculty member. Level: Graduate

**EDLD 591 - Special Topics. 1-9 Credits.**

(R-24) Experimental offerings of visiting professors, experimental offerings of new courses, or one-time offerings of current topics. Level: Graduate

**EDLD 592 - Independent Study. 1-6 Credits.**

(R-6) Course material appropriate to the needs and objectives of the individual student. Level: Graduate

**EDLD 594 - Seminar. 1-9 Credits.**

(R-9) Restricted to graduate students in Educational Leadership, Counselor Education, or Teaching and Learning. Group analysis of problems in specific areas of education. Level: Graduate

**EDLD 598 - Internship. 1-12 Credits.**

(R-12) Restricted to graduate students in Educational Leadership, Extended classroom experience that provides practical application of classroom learning during placements off campus. Prior approval must be obtained from the faculty supervisor. Level: Graduate

**EDLD 599 - Professional Paper. 1-9 Credits.**

(R-9) Restricted to graduate students in Educational Leadership, Counselor Education, or Teaching and Learning. Preparation of a professional paper appropriate to the needs and objectives of the individual student. Level: Graduate

**EDLD 618 - Educational Statistics. 3 Credits.**

Restricted to graduate students in Educational Leadership, Counselor Education, or Teaching and Learning. Advanced statistical methods and use of the mainframe computer and microcomputer for data analysis. Use of a recognized statistical package for research applications. Level: Graduate

**EDLD 620 - Qualitative Research. 3 Credits.**

Restricted to graduate students in Educational Leadership, Counselor Education, or Teaching and Learning. In-depth review of qualitative research methods, designs, and approaches. The development of a research proposal. Level: Graduate

**EDLD 625 - Quantitative Research. 3 Credits.**

Restricted to graduate students in Educational Leadership, Counselor Education, or Teaching and Learning. Principles and technique of quantitative research in educational settings. Students prepare a draft of a research proposal and experience an abbreviated dissertation proposal defense. Level: Graduate

**EDLD 653 - School Personnel Administration. 3 Credits.**

Restricted to graduate students in Educational Leadership, Counselor Education, or Teaching and Learning. Administration of classified and certificated school employees; personnel-related laws, functions, and decisions; unions, bargaining contracts, grievances, etc. Level: Graduate

**EDLD 656 - The Economics of Education. 3 Credits.**

Restricted to graduate students in Educational Leadership, Counselor Education, or Teaching and Learning. School finance from a national perspective; alternative budgeting and school-revenue models; equity considerations. Level: Graduate

**EDLD 657 - Facilities Planning & School Bus Function. 3 Credits.**

Restricted to graduate students in Educational Leadership, Counselor Education, or Teaching and Learning. Working with architects, school personnel, and others on educationally and financially sound plans for new and remodeled facilities; the school business official's responsibilities regarding buildings and grounds, maintenance and custodial services, transportation, food services, and the administration of classified personnel. Level: Graduate

**EDLD 658 - School Pub Relations-Superintendents. 3 Credits.**

Restricted to graduate students in Educational Leadership, Counselor Education, or Teaching and Learning. Enhancing site- and district-level internal and external relations; conducting needs assessments, in-service workshops, and funding campaigns; improving administrators' writing, listening, and speaking skills; composing press releases and newsletters; working with the media. Level: Graduate

**EDLD 660 - Adult Continuing Education. 3 Credits.**

Restricted to graduate students in Educational Leadership, Counselor Education, or Teaching and Learning. Adult learning theory and the special needs and motivations of adult learners in postsecondary institutions; principles and practices of administering postsecondary continuing education programs. Level: Graduate

**EDLD 662 - History of Higher Education. 3 Credits.**

Restricted to graduate students in Educational Leadership, Counselor Education, or Teaching and Learning. Survey of the historical roots of higher education from world and comparative perspectives; examination of the historic and contemporary missions, organizational structures, governance, and administration of various types of postsecondary and higher education institutions in America and abroad. Level: Graduate

**EDLD 664 - The Community College. 3 Credits.**

Restricted to graduate students in Educational Leadership, Counselor Education, or Teaching and Learning. The organization and administration of American postsecondary education in two-year collegiate institutions; current trends in governance, finance, curriculum, faculty and students. Level: Graduate

**EDLD 667 - American College Professor. 3 Credits.**

Restricted to graduate students in Educational Leadership, Counselor Education, or Teaching and Learning. Investigation of the prevailing curriculum and instruction in American undergraduate and graduate education and consideration of reform reports. Level: Graduate

**EDLD 668 - College & University Administration. 3 Credits.**

Restricted to graduate students in Educational Leadership, Counselor Education, or Teaching and Learning. Administration of college and university programs, departments, and schools; the roles of program director or coordinator, department chairperson, dean, vice president, provost, president, chancellor, and commissioner. Level: Graduate

**EDLD 670 - Best Practices in International Program Leadership. 3 Credits.**

Students explore the field of International Programs at the college or university level and seek current best practices. This course is designed to give students an understanding of the leadership and management activities required of leaders in the field of international programs. Level: Graduate

**EDLD 672 - International Program Development. 3 Credits.**

Restricted to graduate students in Educational Leadership, Counselor Education, or Teaching and Learning. This course prepares professionals with the knowledge and practical skills needed to develop programs, seek external funding, and write proposals to support student and professional exchanges, study abroad, ESL and intensive language programs, internships, student services, partnership agreements, and other education and training activities in the international field. Level: Graduate

**EDLD 673 - Leadership/Cultures. 3 Credits.**

This course introduces a methodology to support the emerging field of international and comparative educational leadership and management and is instrumental for students of educational leadership and management. Level: Graduate

**EDLD 674 - Internship in College Teaching. 1-3 Credits.**

Restricted to graduate students in Educational Leadership, Counselor Education, or Teaching and Learning. This course provides an opportunity for guided and supervised teaching at the college level and assistance to the aspiring college teacher in meeting the needs of a diverse student population; assistance provided in methods of teaching at the college level, theories of learning, use of technology, and evaluation and assessment techniques. Level: Graduate

**EDLD 677 - Globalization in Education. 3 Credits.**

This course explores globalization of education from the perspective of International Programs at the post-secondary level. This course is designed to prepare students for leadership positions in the field of International Programs and other related fields. Level: Graduate

**EDLD 679 - Linguistic Diversity. 3 Credits.**

This course explores policy issues related to linguistic diversity. This course is designed to help students develop a framework of global issues as they relate to, and are impacted by, linguistic diversity. Level: Graduate

**EDLD 680 - Politics of International Education. 3 Credits.**

This course explores political issues related to international programs. This course is designed to prepare students for the dynamic nature of political arena surrounding the development and implementation of post-secondary international programs. Level: Graduate

**EDLD 682 - Cross-Cultural Competence. 3 Credits.**

Blending both the practical and theoretical, this course offers you the requisite knowledge, the appropriate motivations, and the relevant skills to function competently with culturally-different others. Level: Graduate

**EDLD 683 - International Perspectives. 3 Credits.**

This course primarily focuses on international students sharing their perspectives (including international academics and experienced practitioners). Topics include adaptation challenges, and the role that international students and faculty play in broader internationalization and diversity agendas within US higher education. Level: Graduate

**EDLD 690 - Advanced Research in Education Administrative Supervision. 1-9 Credits.**

(R-9) Restricted to graduate students in Educational Leadership, Counselor Education, or Teaching and Learning. Independent research under the direction of a faculty member. Level: Graduate

**EDLD 691 - Special Topics. 1-9 Credits.**

(R-24) Offered intermittently. Experimental offerings of visiting professors, experimental offerings of new courses, or one time offerings of current topics. Level: Graduate

**EDLD 694 - Advanced Seminar: Education Administration & Supervision. 1-9 Credits.**

(R-9) Restricted to graduate students in Educational Leadership, Counselor Education, or Teaching and Learning. A review and discussion of current research. Topics vary. Level: Graduate

**EDLD 698 - Internship in Higher Education Administration. 1-12 Credits.**

(R-12) Restricted to graduate students in Educational Leadership, Counselor Education, or Teaching and Learning. Extended classroom experience that provides practical application of classroom learning during placements off campus. Prior approval must be obtained from the faculty supervisor. Level: Graduate

**EDLD 699 - Dissertation. 1-12 Credits.**

(R-24) Restricted to graduate students in Educational Leadership, Counselor Education, or Teaching and Learning. Preparation of a dissertation or manuscript based on research for presentation and/or publication. Level: Graduate

## Electrical Engineering (EELE)

**EELE 201 - Circuits I for Engineering. 4 Credits.**

Prereq., PHSX 217N and EGEN 101. Introduction to circuit analysis; Ohm's and Kirchhoff's Laws; resistors, capacitors, inductors, dependent sources, ideal op-amps; the complete response of first order circuits; complex frequency and phasors; steady-state AC circuits, coupled inductors and ideal transformers.

**EELE 203 - Circuits II for Engineers. 4 Credits.**

Prereq., EELE 201. Coreq., M 274. Natural and forced response of R-L-C circuits, frequency response of R-L-C circuits and Bode plots, frequency response, slew-rate and DC imperfections of real op-amps; Laplace Transform, Fourier series and Fourier Transform techniques in circuit analysis; basic R-L-C and op-amp filters; two port networks.

**EELE 292 - Independent Study. 1-6 Credits.**

(R-6) Offered every term. Course material appropriate to the needs and objectives of the individual student.

## Emergency Care Provider (ECP)

**ECP 102 - Wilderness First Aid. 1-6 Credits.**

(R-6) Offered autumn. Restricted to students in the Wilderness Studies Minor. This course covers basic emergency medicine topics such as airway management, breathing emergencies, circulatory problems, and environmental concerns. Also included: common medical emergencies such as diabetes, seizures, asthma, and anaphylaxis. Emphasis on trauma with in depth discussions and hands on training with splinting, bleeding control, and wound management. Other topics include: legalities within wilderness medicine, SOAP note documentation, and emergency decision-making strategies in wilderness environments.

**ECP 122 - Wilderness First Responder. 2 Credits.**

Offered intermittently. Instruction in the prevention, recognition, and treatment of backcountry illness and injury. Successful students receive an Aerie Wilderness First Responder certification and an American Heart Association Heartsaver CPR certification. This course meets IPAT department first aid requirement, but does not meet the CPR requirement.

**ECP 130 - Emergency Medical Technician. 5 Credits.**

The purpose of this Emergency Medical Technician (EMT) course is to provide students with an academic working knowledge and skills to become state certified and Nationally Registered EMT. It provides the basic concepts of emergency care, and basic life support which are needed to function as an EMT.

**ECP 191 - Special Topics. 1-6 Credits.**

(R-6) Offered intermittently. Experimental offerings of visiting professors, experimental offerings of new courses, or one-time offerings of current topics.

**ECP 200 - Transition to Paramedic Care. 3 Credits.**

Offered autumn at Missoula College and Missoula Emergency Services. Requires admission to Paramedicine program. Provides an opportunity to start learning the cognitive, psychomotor and behavioral differences between an EMT and Paramedic. Topics covered include roles and responsibilities of the paramedic, EMS systems, Licensure/recertification requirements, Medical legal, patient evaluation, radio communications, documentation, and current issues that impact EMS profession.

**ECP 201 - Paramedic Fundamentals. 3 Credits.**

Offered autumn at Missoula College and Missoula Emergency Services. Requires admission to Paramedicine program. Requires completion of all program pre-requisites and admission to program. Prepares the paramedic student in the basic knowledge and skills needed in the pre-hospital environment. Topics covered include roles and responsibilities of the paramedic, medical legal considerations, communications, rescue and disaster operations, initial patient assessment and management, airway management and ventilation, pathophysiology of shock, and emergency pharmacology.

**ECP 202 - Paramedic Fundamentals Lab. 1 Credit.**

Offered autumn at Missoula College and Missoula Emergency Services. Requires admission to Paramedicine program. Practices and gains the manipulative skills necessary to effectively manage the tasks in ECP 201. Completion of pre-requisites and admission to program required.

**ECP 206 - EMS Case Studies. 4 Credits.**

Offered spring at Missoula College and Missoula Emergency Services. Requires completion of all program pre-requisites and admission to program. Provides an opportunity to study and manage trauma and respiratory emergencies from a case study perspective. Trauma topics covered include shock, head, spinal, thoracic, abdominal, burns, and environmental. Respiratory topics covered include asthma, emphysema, chronic bronchitis, pneumonia, pulmonary edema, and embolism.

**ECP 207 - Cardiology. 4 Credits.**

Offered autumn at Missoula College and Missoula Emergency Services. Requires completion of all program pre-requisites and admission to program. Provides an in-depth study in the pathophysiology and management of cardiovascular disease and related emergencies. Topics include anatomy and physiology of the heart and circulatory system, basics of electrophysiology, assessment of the cardiac patient, pathophysiology of atherosclerosis, specific conditions resulting from atherosclerotic heart disease, peripheral vascular emergencies, pharmacologic intervention, dysrhythmia recognition, and specific management of cardiac emergencies.

**ECP 208 - Cardiology Lab & ACLS. 1 Credit.**

Offered autumn at Missoula College and Missoula Emergency Services. Requires completion of all program pre-requisites and admission to program. The student practices and gains manipulative skills to satisfactorily manage the task in ECP 207. Upon completion, the student receives provider certification in Advanced Cardiac Life Support.



**ECP 216 - Hospital Clinical I. 5 Credits.**

Offered spring at Missoula College and Missoula Emergency Services. Requires admission to Paramedicine program. Prereq., ECP 200, ECP 201, ECP 202, ECP 207, and ECP 208. Provides the opportunity to apply, in a clinical setting, the didactic knowledge and skills developed in the classroom and lab. Serves as the first stage in assisting the student to become an employable EMS provider. Clinical skills addressed include patient assessment and evaluation, vital signs management, development of airway management skills, autopsy observation, development of communication skills, introduction to various skills necessary for patient care, and development of safety practices.

**ECP 220 - Special Considerations. 1 Credit.**

Offered spring at Missoula College and Missoula Emergency Services. Requires admission to Paramedicine program. Prereq., ECP 200, ECP 201, ECP 202, ECP 207, and ECP 208. Provides an opportunity to study and manage behavioral emergencies. Students are taught to recognize symptoms of abnormal behavior and responses. Students learn techniques to manage the suicide patient.

**ECP 221 - OB/Neonate/Pediatrics. 2 Credits.**

Offered spring at Missoula College and Missoula Emergency Services. Requires admission to Paramedicine program. Prereq., ECP 200, ECP 201, ECP 202, ECP 207, and ECP 208. Provides the student with the opportunity to participate in normal and abnormal obstetrical problems. Anatomy and physiology of the female reproductive system, assessment of the gynecologic patient, deliveries (normal, abnormal and complicated), routine care of the neonate, care of the distressed infant, neonatal emergencies, and neonatal transport are addressed.

**ECP 222 - OB/Neonate/Pediatric Lab/PALS/Stable. 1 Credit.**

Offered spring at Missoula College and Missoula Emergency Services. Requires admission to Paramedicine program. Prereq., ECP 200, ECP 201, ECP 202, ECP 207, and ECP 208. Practices and gains the manipulative skills necessary to effectively manage the tasks in ECP 221. Upon completion, the student receives provider certification in Pediatric Advanced Life Support (PALS).

**ECP 230 - Trauma. 2 Credits.**

Offered summer at Missoula College and Missoula Emergency Services. Requires admission to Paramedicine program. Prereq., autumn and spring semesters of program. Provides an intense course in the pathophysiology and the management of trauma to include assessment of the trauma patient, management of head injuries, chest injuries, abdominal injuries, spinal injuries, orthopedic injuries, management of the multi-trauma patient, management of special airway problems, and current trends in trauma management.

**ECP 232 - Pulmonary. 2 Credits.**

Offered summer at Missoula College and Missoula Emergency Services. Requires admission to Paramedicine program. Provides an in-depth study of the anatomy of the respiratory system, its relationship to the other systems of the body, the pathophysiology of diseases of the respiratory system, and treatment modalities of pulmonary disease. Topics included are anatomy of the respiratory system, measurements of pulmonary function, respiration and gas exchange, assessment of the respiratory system, pathophysiology and management of respiratory disorders, and principles and management of acute respiratory insufficiency.

**ECP 233 - Trauma/Pulmonary Lab & PHTLS. 1 Credit.**

Offered summer at Missoula College and Missoula Emergency Services. Requires admission to Paramedicine program. Practices and gains the manipulative skills necessary to effectively manage the tasks in ECP 230 and ECP 232. Upon completion, the student receives provider certification in Pre-Hospital Trauma Life Support.

**ECP 242 - Medical Considerations. 2 Credits.**

Offered summer at Missoula College and Missoula Emergency Services. Requires admission to Paramedicine program. Provides an intense course in the pathophysiology and management of medical emergencies to include endocrine, nervous system, the acute abdomen, anaphylaxis, toxicology and substance abuse, infectious diseases, environmental, geriatric and pediatric emergencies.

**ECP 243 - Medical Lab. 1 Credit.**

Offered summer at Missoula College and Missoula Emergency Services. Requires admission to Paramedicine program. Practices and gains the manipulative skills necessary to effectively manage the tasks in ECP 242. Upon completion, the student receives provider certification in Advanced Medical Life Support.

**ECP 246 - Hospital Clinical II. 6 Credits.**

Offered summer at Missoula College and Missoula Emergency Services. Requires admission to Paramedicine program. A continuation of the clinical skills initiated in ECP 216. Provides the opportunity to apply in the clinical setting, the didactic knowledge and skills developed in the classroom and lab. Serves as a second stage in assisting the student to become an employable EMS provider. Clinical skills addressed include electrocardiology, assessment and management of acute and chronic disease, pediatric advanced life support skills, obstetrical and neonatal care, and behavioral intervention techniques.

**ECP 247 - Hospital Clinical III. 6 Credits.**

Offered autumn at Missoula College and Missoula Emergency Services. Requires admission to Paramedicine program. A continuation of the clinical skills initiated in ECP 216 and ECP 246. Serves as a final stage in assisting the student to become an employable EMS provider. Cognitive, psychomotor, and affective evaluation skills addressed include patient assessment, history gathering, treatment prioritizing, diagnostic impression, protocol knowledge, written documentation, airway management, fluid/drug management, cardiac management, trauma/medical management, attitude, professionalism, assertiveness.

**ECP 250 - NREMT Exam Preparation. 3 Credits.**

Offered autumn at Missoula College and Missoula Emergency Services. Requires admission to Paramedicine program. Prepares the paramedic student for the national registry paramedic exam. It is a review of the core curriculum taught throughout 2nd and 3rd semester of the paramedic program.

**ECP 251 - NREMT Exam Preparation Lab. 1 Credit.**

Offered autumn at Missoula College and Missoula Emergency Services. Requires admission to Paramedicine program. Prepares the paramedic student for the national registry paramedic exam. It is a review of the psychomotor skills taught throughout 2nd and 3rd semester of the paramedic program.

**ECP 298 - Internship. 8 Credits.**

Offered autumn at Missoula College and Missoula Emergency Services. Requires admission to Paramedicine program. Provides the opportunity to apply in the clinical setting, the didactic knowledge and skills developed in the classroom and lab. It serves as the final stage in assisting the student to become an employable EMS provider. Cognitive, psychomotor, and affective evaluation skills addressed include patient assessment, history gathering, treatment prioritizing, diagnostic impression, protocol knowledge, radio communication, written documentation, airway management, fluid/drug management, cardiac management, trauma/medical management, attitude, professionalism, assertiveness, team leader qualities.



**ECP 331 - Wilderness EMT. 3 Credits.**

Offered intermittently. EMT-Basic curriculum with significantly more detail concerning care for patients in remote settings. Students must be 18 year old and never been convicted of a felony to qualify for certification. This course meets HHP department First Aid and CPR graduation requirements.

**ECP 332 - EMT and Incident Management. 5 Credits.**

This course follows the DOT's National Registry of EMTs (NREMT) curriculum and is approved by the NREMT and the State of Montana Board of Medical Examiners. Incident management training includes mass-casualty incidents, extended rescue and evacuation scenarios. Clinical experience includes a two day health clinic in Costa Rica, ambulance and hospital emergency department clinical observations in Montana. Co-requisite courses PTRM 391 Wilderness Rescue and Survival Skills; PTRM 391 Wilderness Medicine and Risk Management.

## English Teaching (ENT)

**ENT 292 - Independent Study. 1-3 Credits.**

(R-9) Course material appropriate to the needs and objectives of the individual student.

**ENT 298 - Internship. 1-3 Credits.**

Offered intermittently. Extended classroom experience which provides practical application of classroom learning during placements off campus. A maximum of 6 credits of Internship (198, 298, 398, 498) may count toward graduation.

**ENT 398 - Internship. 1-3 Credits.**

(R-3) Offered every term. Extended classroom experience which provides practical application of classroom learning during placements on and off campus. A maximum of 6 credits of Internship (198, 298, 398, 498) may count toward graduation.

**ENT 439 - Studies in Young Adult Literature. 3 Credits.**

Offered autumn. Reading of representative texts covering the history, genres, authors, and themes of literature for students in middle school and high school. Emphasis on literature circles, large and small group activities, integrated language arts strategies, author study, censorship, and text sets. Required of students pursuing secondary English major and minor teaching certificates. Level: Undergraduate-Graduate

**ENT 440 - Teaching Writing in Secondary School. 3 Credits.**

Offered autumn and spring. Restricted to students in the Teacher Education Program. Emphasis on teaching writing in grades 5-12. Research about development and maturity of writers, overview of schools of writing/history of writing instruction, strategies for teaching writing as a process, elements of writing craft, criteria for assessing and responding to writing, peer-coaching methods, writing/reading workshops, the role of grammar in improving writing, writing/reading connections, assignment characteristics, and grading practices. Required of students pursuing secondary English major and minor teaching licenses. Level: Undergraduate-Graduate

**ENT 442 - Teaching Oral Language & Media Literature. 3 Credits.**

Offered autumn and spring. Prereq., corequisite LING 270S, LING 470, or EDU 395. Emphasis on preparation, implementation, and evaluation of teaching strategies and materials in grades 5-12. Includes learning objectives, teaching and learning styles, unit plans, print and non-print media, and creative drama. Explores student-centered curriculum, with emphasis on developmental abilities in speaking, listening and viewing, and multi-genre/multi-modal communication. Required of students pursuing secondary English major and minor teaching licenses. Level: Undergraduate-Graduate

**ENT 445 - Teaching Reading & Literature. 3 Credits.**

Offered autumn and spring. Restricted to students in the Teacher Education Program. Emphasis on various approaches to teaching reading and literature in grades 5-12. Research about the development and maturity of readers, strategies for teaching reading comprehension and vocabulary, strategies for diagnosing reading abilities and criteria for reading assessment, reading workshops/literature circles. Emphasis on various approaches to teaching literature: genre, inquiry, thematic, chronological and interdisciplinary. Includes techniques for developing responses to fiction, nonfiction, prose, poetry, film and other media. Focus on the design of lesson plans and curriculum using traditional/classic, contemporary, young adult, and multicultural literature in grades 5-12. Required of students pursuing secondary English major and minor teaching licenses. Level: Undergraduate-Graduate

**ENT 492 - Independent Study. 1-3 Credits.**

(R-9) Course material appropriate to the needs and objectives of the individual student. Level: Undergraduate

**ENT 498 - Internship. 1-3 Credits.**

Offered intermittently. Extended classroom experience that provides practical application of classroom learning during placements off campus. Prior approval must be obtained from the faculty supervisor. A maximum of 6 credits of Internship (198, 298, 398, 498) may count toward graduation. Level: Undergraduate-Graduate

**ENT 543 - Advanced Teaching Strategies for Young Adult Literature. 3 Credits.**

Offered intermittently. Selecting, reading, teaching, and evaluating young adult literature. Design of thematic units with emphasis on students' responses to literature. Presentation of multicultural literature, gender inquiry, social justice, censorship, and media issues. Level: Graduate

**ENT 544 - Creative Drama English Class. 3 Credits.**

Offered intermittently. Designing, teaching and evaluating creative drama in the English language arts classroom. Emphasis on using creative drama as a learning strategy to teach literature, language, and all the language arts. Level: Graduate

**ENT 545 - Theory and Pedagogy of Literacy. 3 Credits.**

Offered intermittently. Exploration of contemporary theories and effective strategies for teaching reading, literacy grades 5-16. Level: Graduate

**ENT 547 - Advanced Teaching Strategies of Writing & Reading. 3 Credits.**

Offered intermittently. Current research and best practices in teaching writing and reading in all content areas. Emphasis on writing and reading processes, workshops, conferences and portfolios. National and state standards, curriculum, and assessments in writing and reading are addressed. Level: Graduate

**ENT 548 - Portfolios and Assessment. 3 Credits.**

Offered intermittently. Selecting, designing, and evaluating informal and formal assessments in English Language Arts. Exploration of portfolios as assessment strategies that align curriculum and instruction with standards. Focus on content and performance standards, evaluation criteria and rubrics, and role of reflection in teaching and learning. Level: Graduate

**ENT 550 - Montana Writing Project. 2-9 Credits.**

(R-9) Offered summer. Requires special application. Intensive program designed to increase the effectiveness of the teaching and learning of writing in all levels of education. For graduate students, K-12, and university-level educators. Level: Graduate

**ENT 552 - Montana Writing Project Leadership Training. 2-9 Credits.**

(R-9) Offered summer. Requires special application. Intensive leadership training for Montana Writing Project teacher-consultants in organizing professional development institutes, developing curriculum, and designing assessments that increases the effectiveness of teaching and learning of writing in all levels of education, pre-K-20. Level: Graduate

**ENT 557 - The Holocaust and IEFA. 3 Credits.**

Offered intermittently. Requires special application. This course, intended for K-12 and college/university educators, is a collaboration between the Montana Writing Project and the Holocaust Educators' Memorial to examine curricula and pedagogies for linking Holocaust Education and Indian Education for All through writing and literacy education. Level: Graduate

**ENT 591 - Special Topics. 1-9 Credits.**

(R-24) Offered intermittently. Experimental offerings of visiting professors, experimental offerings of new courses, or one-time offerings of current topics. Level: Graduate

**ENT 592 - Independent Study. 1-9 Credits.**

(R-9) Offered every term. Course material appropriate to the needs and objectives of the individual student. Level: Graduate

**ENT 598 - Internship. 1-3 Credits.**

(R-9) Offered every term. Extended classroom experience that provides practical application of classroom learning during placements off campus. Prior approval must be obtained from the faculty supervisor. Level: Graduate

**ENT 599 - Professional Paper. 1-4 Credits.**

(R-4) Offered every term. Preparation of an in-house professional paper for the Master of Arts in English. Level: Graduate

## Literature (LIT)

**LIT 110L - Introduction to Literature. 3 Credits.**

Offered every term. Offered on Mountain Campus and at Missoula College. Prereq., WRIT 101 or WRIT 201. Study of how readers make meaning of texts and how texts influence readers. Emphasis on interpreting literary texts: close reading, critical analysis and effective writing. Gen Ed Attributes: Literary & Artistic Studies, Writing Across the Curriculum

**LIT 120L - Poetry. 3 Credits.**

Offered every term. Offered on Mountain Campus and at Missoula College. An introduction to the techniques of reading and writing about poetry with emphasis on the lyric and other shorter forms. Gen Ed Attributes: Literary & Artistic Studies, Writing Across the Curriculum

**LIT 191 - Special Topics. 1-6 Credits.**

(R-6) Offered intermittently. Experimental offerings of visiting professors, experimental offerings of new courses, or one-time offerings of current topics.

**LIT 236L - Literary Histories. 3 Credits.**

(R-6) Offered every term. Introduction to the study of literary works in an historical context or a sequence of historical contexts. Gen Ed Attributes: Literary & Artistic Studies, Writing Across the Curriculum

**LIT 246L - Genres, Themes, Approaches. 3 Credits.**

(R-6) Offered every term. Introduction to the study of literary works in terms of genres and broad themes. Gen Ed Attributes: Literary & Artistic Studies, Writing Across the Curriculum

**LIT 280L - Ecology of Literature. 3 Credits.**

Restricted to students in the Wilderness Studies Minor. Literary study of nature writing and other genres introducing an ecocritical perspective, with revolving Anglophone texts. Gen Ed Attributes: Literary & Artistic Studies

**LIT 291 - Special Topics. 1-9 Credits.**

(R-9) Offered intermittently. Experimental offerings of visiting professors, experimental offerings of new courses, or one-time offerings of current topics.

**LIT 300 - Literary Criticism. 3 Credits.**

Offered every term. Prereq., WRIT 101 or WRIT 201. Study of various literary theories and their application to literary texts. Gen Ed Attributes: Writing in the Disciplines

**LIT 304 - U.S. Writers of Color. 3 Credits.**

Offered intermittently. Prereq., WRIT 101 or WRIT 201. Selected readings from African American, Asian American, Chicano/a, Latino/a, and Native American literatures. Gen Ed Attributes: Writing in the Disciplines

**LIT 314L - The American Novel. 3 Credits.**

Offered intermittently. Prereq., WRIT 101 or WRIT 201. Examination of a selection of American novels in their historical, cultural, and literary contexts. Exploration of literary movements such as realism, naturalism, modernism, and postmodernism. Discussion of critical theories and application to the texts. Gen Ed Attributes: Literary & Artistic Studies, Writing in the Disciplines

**LIT 315 - Voices of the American Renaissance. 3 Credits.**

Offered intermittently. Perspectives on antebellum Native American, African American, and gender issues. Study of the poetry of Walt Whitman and Emily Dickinson in light of these three perspectives.

**LIT 319E - Talking to God: Bhagavad Gita. 3 Credits.**

Offered every year or alternate year. Close reading of the Hindu Scripture, Bhagavad Gita, in translation, examining its ethical, literary, philosophical and religious dimensions, its influence on Western and Indian literary writers and thinkers, and the way Indian and Western commentators have interpreted and used it. Gen Ed Attributes: Ethical & Human Values

**LIT 327L - Shakespeare. 3 Credits.**

Offered autumn and spring. Prereq., WRIT 101 or WRIT 201. A survey of selected Shakespeare plays emphasizing close reading of the texts and consideration of their dramatic possibilities. Gen Ed Attributes: Literary & Artistic Studies, Writing in the Disciplines

**LIT 329 - Fathers & Daughters in Literature. 3 Credits.**

Prereq., WRIT 101. Examines how relationships between fathers and daughters have been represented, celebrated and critiqued in literature in the Western world, from antiquity to the present. Includes discussion of changing patriarchal formations, symbolic and adoptive fatherhood, incestuous rape, homosexuality and role reversals. Texts include Greek tragedy, Shakespeare, romantic poetry, novel, and graphic novel. Both male and female authors.

**LIT 331 - Major Authors. 3 Credits.**

(R-9) Offered intermittently. Intensive study of the life and works of one author writing in English (courses offered under this rubric have included Chaucer, Milton, Faulkner, Joyce, Twain; less frequently, Conrad, Hemingway, Blake, Woolf, D.H. Lawrence, Welty).

**LIT 337L - Gender & Sexuality in English Fiction. 3 Credits.**

Offered alternate years. Major 20th century novels and short stories written in English by both men and women in different parts of the world, and how these texts explore changing concepts of gender and sexuality. Topics include heterosexuality, homosexuality, bisexuality, transformations, chastity, adultery, ageing, violence, growing up, adolescence and varying definitions of love.

Gen Ed Attributes: Literary & Artistic Studies

**LIT 343 - African American Literature. 3 Credits.**

Offered intermittently. Selected works by African-American authors. Course may define a narrowed focus such as poetry, women writers, etc.

Gen Ed Attributes: Writing in the Disciplines

**LIT 344 - Asian American Literature. 3 Credits.**

Offered intermittently. This course introduces both a variety of writings by Asian North American authors and major critical issues concerning the production and reception of Asian American texts, with an emphasis on the relation between literary forms and the Asian American socio-historical context, and on the historical formation of Asian American identities.

**LIT 350L - Chaucer. 3 Credits.**

Offered alternate years. Critical reading of Chaucer's masterpiece, the *Canterbury Tales*, with attention to Chaucerian irony, the author's place in literary history, and issues in Chaucer studies.

Gen Ed Attributes: Literary & Artistic Studies

**LIT 353L - Milton. 3 Credits.**

Offered alternate years. Selected study of poetry and prose of Milton.

Gen Ed Attributes: Literary & Artistic Studies, Writing in the Disciplines

**LIT 355 - British Romanticism. 3 Credits.**

Offered alternate years. Introduction to the major texts, themes, and authors of British literature from 1790-1815, focusing on poets such as Blake, Barbauld, Wordsworth, Coleridge, and P.B. Shelley but attending also to prose writers from Austen to Mary Shelley.

**LIT 363 - Modern Poetry. 3 Credits.**

Offered alternate years. Survey of modern poetry in English beginning with Emily Dickinson and Walt Whitman and moving toward the present, centering on modernist poets.

**LIT 369 - Short Fiction. 3 Credits.**

Offered intermittently. Study of selected short stories and novellas from mid-19th century to the present.

**LIT 370 - Science Fiction. 3 Credits.**

Offered intermittently. Study of the science fiction genre from its pulp magazine beginnings in the 1920s to the present.

**LIT 373 - Literature & Environment. 3 Credits.**

Offered autumn. Study of major texts and issues in American nature writing.

**LIT 376 - Literature & Other Disciplines. 3 Credits.**

(R-9) Offered intermittently. Selected works of literature studied in conjunction with works of art, music, religion, philosophy, or another discipline (e.g. Film and Literature, Modernism, Literature and Science, Bible as Literature, Song).

Gen Ed Attributes: Writing in the Disciplines

**LIT 380 - Literary Approaches to Drama. 3 Credits.**

Offered intermittently. This course introduces students to dramatic literature, with an emphasis on dramatic elements and devices, and the continuity in the history/tradition of drama. Topics vary, determined by the instructor's special interests, and might focus on either US, British, or global drama.

**LIT 391 - Special Topics. 1-9 Credits.**

(R-9) Offered intermittently. Experimental offerings of visiting professors, experimental offerings of new courses, or one-time offerings of current topics.

**LIT 398 - Internship. 1-6 Credits.**

(R-6) Extended classroom experience that provides practical application of classroom learning during placements off campus. Prior approval must be obtained from the faculty supervisor. A maximum of 6 credits of Internship (198, 298, 398, 498) may count toward graduation.

**LIT 422 - Ecocritical Theory & Practice. 3 Credits.**

This course surveys the developing field of ecocriticism, introducing students to the major issues and methodologies entailed in the study of literature and the environment. Level: Undergraduate-Graduate

**LIT 430 - Studies in Comparative Literature. 3 Credits.**

(R-9) Offered intermittently. The study of important literary ideas, genres, trends and movements. Level: Undergraduate-Graduate

**LIT 491 - Special Topics. 1-6 Credits.**

(R-9) Offered intermittently. Experimental offerings of visiting professors, experimental offerings of new courses, or one-time offerings of current topics. Level: Undergraduate-Graduate

**LIT 492 - Independent Study. 1-3 Credits.**

(R-9) Offered every term. Course material appropriate to the needs and objectives of the individual student. Level: Undergraduate-Graduate

**LIT 494 - Seminar: Literature Capstone. 3 Credits.**

(R-9) Offered autumn and spring. Prereq., WRIT 101 and LIT 300. Required for completing the English literature concentration, this seminar will allow students to conduct advanced studies in literary figures and topics chosen by faculty to engage a broad range of interests. A long research paper is required. Level: Undergraduate

Gen Ed Attributes: Writing in the Disciplines

**LIT 499 - Senior Thesis/Capstone. 1-9 Credits.**

(R-9) Offered intermittently. Preparation of an undergraduate thesis or manuscript based on research for presentation and/or publication. Level: Undergraduate

**LIT 502 - Special Topics in Ecocriticism. 3 Credits.**

(R-9) This course is a central requirement for the English Department's graduate concentration in Ecocriticism. The course will vary by topic, but will link introductions to ecocritical theory with practice as it models how to apply ecocritical theory to the study of literature. Each offering will explore the interconnections between nature and culture, through the cultural artifacts language and literature. Although changing with the topic, in most cases the course considers the role race, class, and gender play in shaping discourses of nature. Further, consideration of non-Anglo-American traditions will be featured for many offerings. Level: Graduate

**LIT 520 - Seminar in British Literature. 3 Credits.**

(R-9) Offered autumn and spring. Topics vary. Level: Graduate

**LIT 521 - Seminar in American Literature. 3 Credits.**

(R-9) Offered autumn and spring. Topics vary. Level: Graduate

**LIT 522 - Seminar in Comparative Literature. 3 Credits.**

(R-9) Offered intermittently. Topics will vary. Level: Graduate

**LIT 524 - Nature, Language and Politics. 3 Credits.**

(R-9) Offered intermittently. Investigation of environmental, social and political thought from the perspectives of literature and ecocritical theory. Level: Graduate

**LIT 591 - Special Topics. 1-9 Credits.**

(R-24) Offered intermittently. Experimental offerings of visiting professors, experimental offerings of new courses, or one-time offerings of current topics. Level: Graduate

**LIT 592 - Independent Study. 1-9 Credits.**

(R-9) Offered every term. Course material appropriate to the needs and objectives of the individual student. Level: Graduate

**LIT 598 - Internship. 1-9 Credits.**

(R-9) Offered intermittently. Extended classroom experience which provides practical application of classroom learning during placements off campus. Level: Graduate

**LIT 599 - Thesis. 1-6 Credits.**

(R-6) Offered every term. Preparation of a thesis or manuscript based on research for presentation and/or publication. Level: Graduate

## English as an Academic Second Language (EASL)

**EASL 191 - Special Topics. 1-6 Credits.**

(R-15) Offered intermittently. Experimental offerings of visiting professors, experimental offerings of new courses, or one-time offerings of current topics.

**EASL 250 - Intermediate English for Academic Purposes I: Written Production. 3 Credits.**

Offered autumn and spring. Strongly recommended for (i) international students admitted with intermediate or advanced English proficiency status as defined in the catalog, (ii) international students who are new to academic English in North America, and/or (iii) domestic students who use English as Second Language. May not be taken at the same time as or after EASL 450 or WRIT 101. Concentration on reading and writing and study skills required for success in an American academic setting. Students will read academic texts and build proficiency in identifying and comprehending main ideas, supporting details, and academic vocabulary. Writing focus includes paragraph and essay structure (process & comparison patterns), basic research protocol, grammatical editing and citation. The course also introduces students to American academic culture and classroom expectations.

**EASL 251 - Intermediate English for Academic Purposes II: Spoken Production. 3 Credits.**

Offered autumn and spring. Strongly recommended for (i) international students admitted with intermediate or advanced English proficiency status as defined in the catalog, (ii) international students who are new to academic English in North America, and/or (iii) domestic students who use English as Second Language. May not be taken at the same time as or after EASL 451 or COMX 111. Concentration on listening, notetaking, speaking and study skills required for success in an American academic setting. Includes participating in and leading structured class discussions, and preparing formal presentations with appropriate research and technological support. The course also introduces students to American academic culture and classroom expectations.

**EASL 451 - Advanced English for Academic Purposes II: Spoken Production. 3 Credits.**

Offered autumn and spring. Strongly recommended for (i) international students admitted with intermediate or advanced English proficiency status as defined in the catalog, (ii) international students who are new to academic English in North America, and/or (iii) domestic students who use English as Second Language. May not be taken at the same time EASL 251 or COMX 111, or after COMX 111. Concentration on improving academic listening and speaking and study skills required for success in an American academic setting. Includes refining pronunciation, participating in informal and structured debates, leading class discussions, extemporaneous speaking, and preparing formal presentations with appropriate research and technological support. Students will learn to navigate American academic culture and its communicative expectations, engaging in social interactions on different topics and in different academic settings. Level: Undergraduate

## English Language Institute (ELI)

**ELI 091 - Special Topics. 6 Credits.**

(R-36) Offered intermittently. Experimental offerings of visiting professors, experimental offerings of new courses, or one-time offerings of current topics.

**ELI 095 - English Language Instruction. 6 Credits.****ELI 096 - English Language Instruction. 6 Credits.****ELI 097 - English Language Instruction. 6 Credits.****ELI 098 - English Language Instruction. 6 Credits.****ELI 099 - English Language Instruction. 12 Credits.**

## Environmental Sciences (ENSC)

**ENSC 105N - Environmental Science. 3 Credits.**

Offered autumn. Provides students with opportunities to use class knowledge to make a difference; helps students build all of the following: scientific literacy; skills in critical thinking, research and self-instruction; an understanding of the scientific basis of environmental issues, policies and laws; habits of sustainable living, scientifically-informed, active participation in social decisions, and service to their community and to the earth.

Gen Ed Attributes: Natural Science

**ENSC 291 - Special Topics/Experimental Courses. 1-6 Credits.**

(R-6) Offered intermittently. Experimental offerings of visiting professors, new courses, or one-time offerings of current topics.

**ENSC 360 - Applied Ecology. 3 Credits.**

To succeed in this course, students need college level courses in general biology, chemistry & statistics. Principles and concepts of ecology and how they can be applied to inform real life decisions about human interactions with the environment. Emphasizes the science of sustainability and the conservation of watersheds and biodiversity.

**ENSC 390 - Undergraduate Research. 1-10 Credits.**

(R-10) Offered intermittently. Directed individual research and study appropriate to the background and objectives of the student.

**ENSC 391 - Special Topics/Experimental Courses. 1-9 Credits.**

(R-12) Offered intermittently. Experimental offerings of visiting professors, new courses, or one time offerings of current topics.



**ENSC 398 - Internship. 1-6 Credits.**

(R-6) Offered autumn and spring. Practical application of classroom learning through internship with governments, organizations, or industry. A maximum of 6 credits of Internship (198, 298, 398, 498) may count toward graduation.

**ENSC 470 - Agroecology. 3 Credits.**

Offered Intermittently. Offering crucial tools for sustainability and resilience, agroecology is the study of ecological processes applied to food and agricultural systems. Students learn key concepts, scientific findings from the field, and how to apply agroecological principles. Level: Undergraduate-Graduate

**ENSC 474 - Environmental Analytics. 3 Credits.**

Offered spring. In this course, the student will learn how to use applied statistical and data mining techniques to inform decision-making in environmental problem solving, leveraging such methods as point analysis, location suitability analysis, spatial regression modeling, time series analysis, spatial interpolation, and forecasting. Co-convenes with ENSC 574. Level: Undergraduate

**ENSC 491 - Special Topics/Experimental Courses. 1-9 Credits.**

(R-9) Offered intermittently. Experimental offerings of visiting professors, new courses, or one time offerings of current topics. Level: Undergraduate

**ENSC 492 - Independent Study. 1-6 Credits.**

(R-6) Offered autumn and spring. Course material appropriate to the needs and objectives of the individual student. Level: Undergraduate-Graduate

**ENSC 494 - Seminar/Workshop. 1-3 Credits.**

(R-6) Offered intermittently. A seminar on a current environmental topic. Level: Undergraduate-Graduate

**ENSC 495 - Field Study. 1-10 Credits.**

(R-10) Offered autumn. Prereq. or coreq., ENSC 360. Designing, executing, interpreting and documenting field studies. Project oriented. Level: Undergraduate-Graduate

**ENSC 501 - Scientific Approaches to Environmental Problems. 3 Credits.**

Offered autumn. Restricted to graduate students in Environmental Studies. The strength and limitations of the scientific approach to investigating and solving selected environmental problems with an emphasis on the natural sciences. Level: Graduate

**ENSC 508 - Environmental Health of Indigenous Peoples. 3 Credits.**

This graduate seminar will focus on learning about historic and contemporary environmental health issues, innovative programs that improve health and restoring the environments of Indigenous peoples. Level: Graduate

**ENSC 540 - Watershed Conservation. 3 Credits.**

Offered autumn. Course assumes students have level of knowledge presented in a college level ecology course. Integrates watershed science, policy, planning, action and organizing. The science component explores watershed connections, evaluating change and assessing watershed condition. The policy component explains the scientific basis of national, state and local laws, programs and agencies that affect watersheds. The planning and action component discusses developing watershed conservation plans and selecting actions likely to address problems without creating other problems. The organizing component covers how to help watershed communities make choices, resolve conflicts, build commitment and find funding. Students work individually or in teams to assist Montana groups in developing watershed CPR plans, initiating monitoring projects, and/or conducting education projects. Level: Graduate

**ENSC 550 - Pollution Ecology. 3 Credits.**

Offered spring even-numbered years. Course assumes students have level of knowledge presented in a college level ecology course. Examines sources, fate, and effects of pollutants on organisms and ecosystems; methods of measuring and predicting pollutant fate and effects, assessing and reducing risks, estimating ecosystem assimilation capacity; setting standards and restoring ecosystems damaged by pollution. Briefly examines some relevant laws and policies at the federal, state and local level. Level: Graduate

**ENSC 574 - Environmental Analytics. 3 Credits.**

Environmental analytics concerns the quantitative analysis of environmental data in its non-spatial, spatial, and temporal dimensions, along with the assessment of quality indicators such as information redundancy, the accuracy and precision of models, and data uncertainty. Methods and techniques for environmental analytics are typically based on probability, stochastic modelling, and statistics as well as information science (inclusive of Geographic Information Systems and machine learning), though they take a more practical approach to the analysis and modeling of environmental processes. Applications include biophysical domains (e.g., agriculture, natural resources, ecology, air quality) as well as socioeconomic domains (e.g., epidemiology, health care, food systems, environmental planning). In this introductory course, students will work on case studies in both domains to illustrate the different facets of environmental problem solving. Co-convenes with ENSC 474. Level: Graduate

**ENSC 590 - Graduate Research. 1-12 Credits.**

(R-12) Offered intermittently. Restricted to graduate students in Environmental Studies. Directed individual research and study appropriate to the background and objectives of the student. Level: Graduate

**ENSC 591 - Special Topics. 1-9 Credits.**

(R-24) Offered autumn and spring. Restricted to graduate students in Environmental Studies. Experimental offerings of visiting professors, of new courses, or one-time offerings of current topics. Level: Graduate

**ENSC 592 - Independent Study. 1-12 Credits.**

(R-12) Offered autumn and spring. Restricted to graduate students in Environmental Studies. Course material appropriate to the needs and objectives of the individual student. Level: Graduate

**ENSC 594 - Graduate Seminar. 1-15 Credits.**

(R-15) Offered autumn and spring. In depth analysis of a current environmental topic. Different topics offered each semester. Level: Graduate

**ENSC 598 - Internship. 1-8 Credits.**

(R-8) Offered autumn and spring. Practical application of classroom learning during placements off campus. Level: Graduate

**ENSC 599 - Thesis/Professional Paper. 1-6 Credits.**

(R-6) Offered autumn and spring. Restricted to graduate students in Environmental Studies. Preparation of a thesis, manuscript, or professional paper based on research for presentation and/or publication. Level: Graduate

## Environmental Studies (ENST)

**ENST 188 - Getting to Know Environmental Studies. 1 Credit.**

Course is designed to introduce entering EVST majors to the EVST program, the PEAS Farm and UM FLAT, and the broader Missoula environmental community, as well as internship opportunities. Offered CR/NCR only.



**ENST 191 - Special Topics. 1-9 Credits.**

(R-9) Offered intermittently. Experimental offerings of visiting professors, experimental offerings of new courses, or one time offerings of current topics.

**ENST 201 - Environmental Info Resources. 3 Credits.**

Offered spring. Restricted to majors in Environmental Studies. Students learn how to find, evaluate, and use existing information to understand environmental issues. Students will learn research methods; research a question using a variety of sources; evaluate sources critically; and write and give an audio/video presentation on their question. Focus is on critical thinking and dealing with the information explosion.

Gen Ed Attributes: Writing Across the Curriculum

**ENST 225S - Sustainable Communities. 3 Credits.**

Offered spring. Exploration of ways that communities promote sustainability and environmental health. Introduction of relevant social science concepts.

Gen Ed Attributes: Social Sciences, Democracy and Citizenship

**ENST 230H - Nature and Society. 3 Credits.**

Offered autumn. Offered on Mountain Campus. Explores the relationship between ideas about nature and the development of political and social ideas, institutions, and practices, primarily in western (Euro-American) society. Complements ethics offerings in philosophy aimed at environmental studies majors.

Gen Ed Attributes: Historical Studies

**ENST 231H - Nature and Society. 3 Credits.**

Offered autumn and spring. Prereq., WRIT 101. Offered at Missoula College. Explores the relationship between ideas about nature and the development of political and social ideas, institutions, and practices in primarily western (Euro-American) society. Course is an elective for students in the 2-year AA and AAS degree programs.

Gen Ed Attributes: Historical Studies, Writing Across the Curriculum

**ENST 291 - Special Topics/Experimental Courses. 1-9 Credits.**

(R-9) Offered intermittently. Experimental offerings of visiting professors, of new courses, or one-time offerings of current topics.

**ENST 294 - Seminar. 1-6 Credits.**

(R-6) Offered intermittently. A review and discussion of current research. Topics vary.

**ENST 310 - Environment Montana: A to Z. 3 Credits.**

Offered spring. The environment of Montana has changed dramatically since its founding 150 years ago. The purpose of this course is to provide an introduction to the land, people and places of Montana as viewed through the lens of environmental change. It will explore environmental change in relation to the actions of human beings. It will also explore how federal policies intersect with Montana environmental stories. Through a combination of lectures, readings, focused in-class discussions, and a research project students will learn the environmental stories of Montana.

**ENST 320E - Earth Ethics. 3 Credits.**

Offered intermittently. Prereq., ENST 230H or PHL 112E. We often think of environmental issues primarily as issues of science and politics: what does science tell us about problems facing the environment, and how can politics help us respond? But environmental issues are simultaneously ethical issues with several moral dimensions: because each issue raises questions of how we should respond, exploring the moral dimensions of environmental issues can help us to discern better or worse responses, and to understand why we choose to respond as we do. In this course we will develop broad familiarity with different approaches within the field of environmental ethics in order to use a case study approach to examine a range of contemporary environmental issues. Students will have the opportunity to develop their own responses within a moral framework. By the end of the course students will have learned how to examine the moral dimensions of a range of environmental issues and how to ground their own perspectives within an ethical framework.

Gen Ed Attributes: Ethical & Human Values

**ENST 335L - Literature of the Earth. 3 Credits.**

Offered autumn. Prereq., WRIT 101. Provides interpretations and understanding of forms and themes in American nonfiction, fiction, poetry, and film that interrogate nature, the relationship between humanity and non-human life, ecological-racial justice, and the movement of environmental dissent and activism.

Gen Ed Attributes: Literary & Artistic Studies, Writing in the Disciplines

**ENST 350 - Energy and Climate. 3 Credits.**

Energy and Climate takes an interdisciplinary look at the electrical grid and energy transition in the context of climate change. Students explore energy issues through technical, economic, environmental, and political lenses by tracing energy from its end-use back through the grid to its ultimate source, touching on every step along the way. Class time is dedicated to discussion, role-playing games, simulations, and occasional lectures.

**ENST 367 - Environmental Politics & Policies. 3 Credits.**

Offered autumn. Prereq., WRIT 101. Foundation in public lands history, bedrock environmental laws, policy processes and institutions. Research and analysis of current environmental and natural resource policy issues. Focus is domestic illustrated by case studies.

Gen Ed Attributes: Writing in the Disciplines

**ENST 373A - Writing the Earth: Workshop on Nature, Environment & Justice. 3 Credits.**

Offered spring. Writing workshop for the creation, critique, and revision of essays about the environment to include natural history, personal narrative, science interpretation, advocacy/editorial, place-based essay, and others. Examination of concepts, forms, and approaches to writing about environmental concerns, activism, and justice. Reading and responding to published work, primarily from the perspective of technique and approach.

Gen Ed Attributes: Expressive Arts

**ENST 382 - Environmental Law. 3 Credits.**

Offered spring. Prereq., WRIT 101. Introduction to the history, law and theory of environmental regulation in the United States using public and private land regulation mechanisms as case studies. Basic principles of constitutional and administrative law relevant to environmental regulation, substantive public and private land use law and the history of environmental problems and their regulation.

Gen Ed Attributes: Writing in the Disciplines

**ENST 391 - Special Topics/Experimental Courses. 1-12 Credits.**

(R-12) Offered intermittently. Experimental offerings of visiting professors, of new courses, or one-time offerings of current topics.

**ENST 395 - Field Studies: Environmental Studies. 2-3 Credits.**

(R-12) Offered every term. Via extended backcountry travel, experiential examination of cultural history and public lands management, and how those affect ecosystem integrity. Investigation of personal roles in and relationships with human and ecological communities. Offered by the Wild Rockies Field Institute and Swan Valley Connections.

**ENST 398 - Internship. 1-6 Credits.**

(R-6) Offered autumn and spring. Extended classroom experience that provides practical application of classroom learning during placements off campus. Prior approval must be obtained from the faculty supervisor. A maximum of 6 credits of Internship (198, 298, 398, 498) may count toward graduation.

**ENST 410 - TEK of Indigenous Peoples. 3 Credits.**

Offered autumn. Examines traditional ecological knowledge (TEK) of Indigenous peoples of North America and the world. Level: Undergraduate-Graduate

**ENST 420 - US Environmental Movement. 3 Credits.**

Offered Intermittently. Study of the environmental movement as a social movement. Examination of different approaches to environmental protection and restoration in view of the movement's historical roots and contemporary debates. Level: Undergraduate

**ENST 427 - Social Issues: The Mekong Delta. 3 Credits.**

Offered intermittently in fall. This on-campus course focuses on the history, culture, economy and environment of Vietnam, with particular emphasis on the Mekong Delta region. This is achieved through various media, class discussions, personal and group projects, and activities with the instructor and guest experts. As a prerequisite for the study abroad course to Vietnam (ENST 437), the goal of the course is to provide an understanding of the unique environments and the socio-economy of the Mekong Delta region to facilitate learning about the effects of climate change on these complex natural and anthropogenic systems. Co-convenes with ENST 514. Level: Undergraduate

**ENST 437 - Climate Change: Mekong Delta. 1 Credit.**

Offered intermittently. Prereq., ENST 427. This study abroad course focuses on the threats posed by climate change in Vietnam, with particular emphasis on the Mekong Delta region. This is achieved through lectures from Can Tho University professors, active participation in field trips, the homestay, course readings, and synthesis through questions sets and discussions provided by University of Montana instructor. The goal of this course is to provide an understanding of the potential impacts of climate change on the ecosystems and people of the Mekong Delta, and explore opportunities for people to adapt to and mitigate these impacts. Co-convenes with ENST 516. Level: Undergraduate

**ENST 472 - General Science: Conservation Education. 3 Credits.**

Offered autumn and spring. A study of the foundations of environmental science and conservation education with applications to community service and teaching. Level: Undergraduate

**ENST 476 - Community Sustainability in Practice. 3 Credits.**

Offered spring. Restricted to students with at least junior status. Project-based, capstone-like course that develops student sustainability practice, leadership and environmental citizenship competencies. Level: Undergraduate-Graduate

**ENST 480 - Food Justice and Sustainability. 3 Credits.**

Offered spring. Seminar course that examines the social justice, economic, and sustainability dimensions of the contemporary food system with a focus on the United States. Develops student understanding of the dominant food system and emerging alternatives. Level: Undergraduate-Graduate

**ENST 487 - Globalization, Justice & Environment. 3 Credits.**

Offered autumn. Prereq., WRIT 101. Study of current trends in economic globalization and its effects on efforts to work for social justice and environmental sustainability, particularly in the Global South. Examination of different models and theories of globalization, analysis of ethical issues raised, and assessment of alternatives proposed. Level: Undergraduate-Graduate  
Gen Ed Attributes: Writing in the Disciplines

**ENST 489S - Environmental Justice Issues & Solutions. 3 Credits.**

Offered autumn. Examination of evidence, causes and consequences of social inequality in the distribution of environmental risks and in access to natural resources and environmental amenities. Community, government and industry responses and service approaches for addressing environmental inequities. Course co-convenes with ENST 589. Level: Undergraduate-Graduate  
Gen Ed Attributes: Social Sciences

**ENST 491 - Special Topics/Experimental Courses. 1-12 Credits.**

(R-12) Offered intermittently. Experimental offerings of visiting professors, of new courses, or one-time offerings of current topics. Level: Undergraduate-Graduate

**ENST 492 - Independent Study. 1-6 Credits.**

(R-6) Offered autumn and spring. Course material appropriate to the needs and objectives of the individual student. Level: Undergraduate

**ENST 494 - Seminar/Workshop. 1-3 Credits.**

(R-6) Offered intermittently. A seminar on a current environmental topic. Level: Undergraduate-Graduate

**ENST 495 - Field Work/Practicum. 3 Credits.**

(R-6) Offered intermittently. Organized field experience or practicum in Environmental Studies. Level: Undergraduate-Graduate

**ENST 499 - Senior Thesis/Capstone. 3 Credits.**

Offered intermittently. Restricted to majors in Environmental Studies with senior standing. For seniors who want to design and perform a significant capstone project involving research and/or service. Students have responsibility for designing their projects which are subject to faculty approval. A final report and public presentation are required. Honors credit available. Level: Undergraduate

**ENST 505 - Earth Storytelling: Nature, Climate, Resistance. 3 Credits.**

Offered intermittently. This seminar considers works of environmental literature, from the perspective of both creators and critics. We will examine works of fiction, essay, memoir, literary journalism, science fiction, poetry, and film that interrogate the human relationship with nature, climate change, and racial justice. We will look both at the writer's craft as well as overarching thematic concerns. Level: Graduate

**ENST 510 - Environmental Issues of Indigenous Peoples. 3 Credits.**

Offered intermittently. This graduate seminar provides an overview of environmental issues of Indigenous peoples from the 19th to 21st centuries. Level: Graduate

**ENST 513 - Natural Resource Conflict Resolution. 3 Credits.**

Offered autumn. Same as NRS 513 and LAW 613. Examines the basic framework for preventing and resolving natural resource and environmental conflicts in America. Reviews the history of alternative approaches, emphasizes the theory and practice of collaboration, and considers future trends. This highly interactive course uses lectures, guest speakers, case studies, and simulations. Level: Graduate

**ENST 514 - Social Issues:The Mekong Delta. 3 Credits.**

Offered intermittently in spring. This on-campus course focuses on the history, culture, economy and environment of Vietnam, with particular emphasis on the Mekong Delta region. This is achieved through various media, class discussions, personal and group projects, and activities with the instructor and guest experts. As a prerequisite for the study abroad course to Vietnam (ENST 516), the goal of the course is to provide an understanding of the unique environments and the socio-economy of the Mekong Delta region to facilitate learning about the effects of climate change on these complex natural and anthropogenic systems. Co-convenes with ENST 427. Level: Graduate

**ENST 515 - Environmental Negotiation Mediation. 3 Credits.**

Offered intermittently. Same as LAW 519 and NRSM 515. This course prepares students to effectively engage in multiparty negotiation on natural resource and environmental issues. It is grounded in theory and provides an opportunity to develop practical skills in both negotiation and facilitation/mediation. Guest speakers, case studies, and simulations allow students to develop, test, and refine best practices. The course is fast-paced, highly interactive, and serves as the second of three required courses in the Natural Resources Conflict Resolution Program. Level: Graduate

**ENST 516 - Climate Change: Mekong Delta. 1 Credit.**

Offered intermittently. Prereq., ENST 514. This study abroad course focuses on the threats posed by climate change in Vietnam, with particular emphasis on the Mekong Delta region. This is achieved through lectures from Can Tho University professors, active participation in field trips, field data collection, analysis and interpretation, the homestay, course readings, independent graduate research, and synthesis provided by University of Montana professors. The goal of this course is to provide an understanding of the potential impacts of climate change on the ecosystems and people of the Mekong Delta, and explore opportunities for people to adapt to and mitigate these impacts. Co-convenes with ENST 437. Level: Graduate

**ENST 519 - Foundations of Change. 1 Credit.**

Offered autumn. Restricted to graduate students in Environmental Studies. Designed for the first-year graduate cohort in Environmental Studies, this foundational course aims to strengthen participants' capacities to effectively meet today's environmental and social justice challenges. Participants explore their own sense of personal purpose, plan their degrees, and develop leadership skills and community. Level: Graduate

**ENST 521 - Foundation in Environmental Education. 3 Credits.**

Offered autumn. Restricted to graduate students in Environmental Studies. Problem-solving approaches to environmental education; problem identification, research and design and implementation of an educational approach to selected environmental issues. Level: Graduate

**ENST 530 - The Greening of Religion. 3 Credits.**

Offered yearly. A critical examination of different religious traditions' views on nature and society, and contemporary religious traditions' responses to environmental issues. Level: Graduate

**ENST 535 - Local Climate Solutions. 3 Credits.**

Offered intermittently. This course seeks to develop students' understanding and skills for participating in local solutions to climate change that can also support broader conservation, efficiency and sustainability efforts. This will be accomplished by engaging in planning and carrying out group projects that further advance existing climate change mitigation or adaptation efforts. Level: Graduate

**ENST 537 - Building Effective Environment Organizations. 3 Credits.**

Offered intermittently. Focus on the tasks and skills necessary to building and managing effective environmental organizations, particularly non-profit. Budgeting, fund-raising, grant-writing, attracting and utilizing volunteers, working with the media. Strategic approaches and how they are shaped by issue, context, and structure. Level: Graduate

**ENST 542 - Conservation Without Borders. 3 Credits.**

Offered intermittently in autumn. Restricted to graduate students in Environmental Studies. Review of the political systems and administrative systems of each country relevant to natural resource policy decision-making and ecological systems. Study theory of integration of conservation with management such as common pool resource management, transboundary protected areas and international agreements. Review pertinent literature, interact with stakeholders, and produce group reports. Level: Graduate

**ENST 548 - Supervision and Teaching Environmental Education. 3 Credits.**

Offered intermittently. Design, selection and evaluation of materials for the teaching of environmental education. Level: Graduate

**ENST 555 - Research Methods for Social Change. 3 Credits.**

Offered intermittently. Introduction to qualitative methods of research design, data collection, and analysis. Emphasis on research that facilitates and documents social change processes. Hands-on research experience through fieldwork projects. Includes instruction on writing social science and on research ethics. Level: Graduate

**ENST 560 - Environmental Impact Analysis. 3 Credits.**

Offered intermittently. Covers legal and scientific aspects of the Environmental Impact Analysis (EIA) including: What is required by international, national and state law and regulations? How does one organize an effective interdisciplinary team research effort and public participation program? What scientific tools are used in EIA? How could EIA process be improved? Level: Graduate

**ENST 561 - Land Use Planning Law. 3 Credits.**

Offered autumn. Basic overview of the law of land use planning including background in the traditional governmental regulatory, proprietary, and fiscal land use tools. Examination of modern techniques for land use planning; consideration of constitutional limits of authority of state and local governments. Focus on skills in interpreting, drafting and applying state legislation and local ordinances. Co-convenes with LAW 687. Level: Graduate

**ENST 563 - Introduction to Environmental Law. 3 Credits.**

Offered autumn. Philosophy and values underlying environmental regulation, basic introduction to administrative law, in-depth study of air and water pollution and the environmental policy acts. Co-convenes with LAW 650. Level: Graduate

**ENST 565 - Public Land & Resources Law. 3 Credits.**

Offered spring. Restricted to graduate students in Environmental Studies. Historical development of United States public land law, state-federal relations, and the roles of Congress, the executive and the courts; the law applying to specific public land resources: water, minerals, timber, range, and preservation. Co-convenes with LAW 654. Level: Graduate

**ENST 567 - Water Law. 3 Credits.**

Offered spring. Interstate water problems; federal/state powers; federal/Indian water rights/Montana water law. Co-convenes with LAW 663. Level: Graduate

**ENST 570 - Ethics & Restoration. 3 Credits.**

Offered autumn. A critical examination of the ethical issues that emerge in the field of ecological restoration, and decisions to manipulate nature intentionally for social and ecological goals. Level: Graduate

**ENST 573 - Environmental Writing. 3 Credits.**

(R-6) Offered autumn. Writing workshop designed to improve skills in writing on environmental topics for general audiences. Approaches include personal narrative, natural history, science interpretation, advocacy/argument, place-based essays. Includes analysis of published work from the perspective of technique and craft. Level: Graduate

**ENST 579 - Practicum in Collaborative Conservation. 3 Credits.**

(R-4) Offered every semester. Prereq., ENST 513. Designed as the capstone experience of the Natural Resources Conflict Resolution Program. Provides practical experience in multi-party collaboration and conflict resolution. Students may design their own project in consultation with the director of the NRCR Program, or participate in a project organized and convened by faculty. Projects may be conducted year-round. Co-convenes with LAW 679. Level: Graduate

**ENST 580 - The Politics of Food. 3 Credits.**

Offered intermittently. This seminar explores social, economic, and ecological issues related to the contemporary food and agricultural system and alternatives to that system. Level: Graduate

**ENST 589 - Environmental Justice Issues and Solutions. 3 Credits.**

Course examines how and why environmental burdens, amenities, and services are inequitably distributed among various segments of society and approaches to addressing environmental inequalities and discrimination in environmental decision making. Co-convenes with ENST 489S. Level: Graduate

**ENST 590 - Research. 1-12 Credits.**

(R-12) Offered autumn and spring. Restricted to graduate students in Environmental Studies. Directed individual graduate research and study appropriate to background and objectives of the student. Level: Graduate

**ENST 591 - Special Topics. 1-6 Credits.**

(R-6) Offered intermittently. Experimental offerings of visiting professors, experimental offerings of new courses, or one-time offerings of current topics.

**ENST 592 - Independent Study. 1-12 Credits.**

(R-12) Offered autumn and spring. Restricted to graduate students in Environmental Studies. Course material appropriate to the needs and objectives of the individual student. Level: Graduate

**ENST 594 - Graduate Seminar. 1-15 Credits.**

(R-15) Offered autumn and spring. In-depth analysis of a current environmental topic. Different topics offered each semester. Level: Graduate

**ENST 595 - PEAS Farm Practicum. 8 Credits.**

(R-8) Offered Spring and autumn for 2 credit and as a summer intensive course for 3 credit. Restricted to graduate students. Students learn small scale sustainable vegetable farming in a hands-on work environment at the PEAS farm (a 15 minute bike ride from campus). Lectures, readings, and reflection inform the work. Summer students also visit local farms on once-a week field trips. This course is repeatable as the curriculum changes across the season, and students can attend any semester, though the 3-credit graduate level summer intensive course is the heart of the program. Level: Graduate

**ENST 598 - Internship. 1-8 Credits.**

(R-12) Offered autumn and spring. Practical application of classroom learning during placements off campus. Level: Graduate

**ENST 599 - Thesis/Professional Paper. 1-6 Credits.**

(R-6) Offered autumn and spring. Restricted to graduate students in Environmental Studies. Preparation of a thesis, manuscript, or professional paper based on research for presentation and/or publication. Level: Graduate

## Film (FILM)

**FILM 103L - Introduction to Film. 3 Credits.**

The history and development of the film medium. Emphasis on critical analysis of selected classic or significant films.

Gen Ed Attributes: Literary & Artistic Studies

**FILM 191 - Special Topics. 1-6 Credits.**

(R-6) Offered intermittently. Experimental offerings of visiting professors, experimental offerings of new courses, or one-time offerings of current topics.

**FILM 271 - Film & Literature. 3 Credits.**

(R-6) Offered intermittently. Studies of the relationship between film and literature. Topics vary.

**FILM 291 - Special Topics. 1-6 Credits.**

(R-6) Experimental offerings of visiting professors, experimental offerings of new courses, or one-time offerings of current topics.

**FILM 300 - History of Film. 3 Credits.**

Offered fall. Survey of film history.

Gen Ed Attributes: Historical Studies

**FILM 320 - Shakespeare and Film. 3 Credits.**

A survey of selected Shakespeare plays emphasizing close reading of the texts and consideration of their dramatic possibilities in relation to film.

Gen Ed Attributes: Writing Across the Curriculum

**FILM 327 - Film Genres. 3 Credits.**

(R-9) Offered every other year. Prereq. FILM 103L. Intensive study of central works within one major film genre.

**FILM 365 - Latin American Civilization Through Literature & Film. 3 Credits.**

Offered in autumn odd-numbered years. The development of the traditional society of Latin American civilization through the interaction of European, Indian and African elements.

**FILM 381 - Studies in Film. 3 Credits.**

(R-9) Studies in genres, directors, movements, problems, etc.

**FILM 391 - Special Topics. 1-9 Credits.**

(R-6) Offered intermittently. Experimental offerings of visiting professors, experimental offerings of new courses, or one-time offerings of current topics.

**FILM 392 - Independent Study. 1-6 Credits.**

(R-6) Offered Intermittently. Course material appropriate to the needs and objectives of the individual student.

**FILM 447 - Film Theory. 3 Credits.**

Offered yearly. This course examines key approaches to film theory and criticism, and the theoretical roots of each. Classic and contemporary films will be assessed in the light of the theories covered. Level: Undergraduate-Graduate



**FILM 448 - Documentary: Theory and Practice. 3 Credits.**

Offered yearly. Designed to bring together Film Studies students (theorists) and Media Arts students (filmmakers) so they may draw from their respective fields to collaborate on the production of documentaries. After exposure to both documentary history and criticism, students will work with a team of producers in learning the basic skills involved in documentary production. Level: Undergraduate-Graduate

**FILM 481 - Advanced Studies in Film. 3 Credits.**

(R-9) Offered every other year. Studies in film aesthetics, politics of film, international cinema and comparative film analyses. Level: Undergraduate-Graduate

**FILM 484 - Film Directors. 3 Credits.**

(R-9) Offered every year. Prereq. FILM 103L. Intensive study of the life and work of one major film director. Level: Undergraduate-Graduate

**FILM 491 - Special Topics. 1-9 Credits.**

(R-6) Offered intermittently. Experimental offerings of visiting professors, experimental offerings of new courses, or one-time offerings of current topics. Level: Undergraduate-Graduate

**FILM 492 - Independent Study. 1-9 Credits.**

(R-9) Course material appropriate to the needs and objectives of the individual student. Level: Undergraduate

**FILM 495 - Practicum. 1-6 Credits.**

(R-6) Supervised, practical experience in a professional setting relevant to the student's field of study. Level: Undergraduate-Graduate

**FILM 592 - Independent Study. 1-9 Credits.**

(R-9) Course material appropriate to the needs and objectives of the individual student. Level: Graduate

## Fish, Wildlife Science & Management (WILD)

**WILD 105N - Wildlife & People. 3 Credits.**

Offered autumn. Intended for non-wildlife biology majors. Interactions of wildlife and people in today's society.  
Gen Ed Attributes: Natural Science

**WILD 170 - Fish & Wildlife Interest Group. 1 Credit.**

Offered autumn. Discussion section for incoming students.

**WILD 180 - Careers in Wildlife Biology. 2 Credits.**

Offered autumn and spring. Subject matter and fields of study within wildlife biology conservation and management. Topics to include wildlife ecology, aquatic ecology, human dimensions, conservation and management, and other opportunities for careers in wildlife biology.

**WILD 191 - Special Topics. 1-6 Credits.**

(R-6) Offered intermittently. Experimental offerings of visiting professors, experimental offerings of new courses, or one-time offerings of current topics.

**WILD 230 - Conservation Science. 3 Credits.**

Prereq., BIOO 105N or BIOB 160 or BIOB 170N or BIOE 172N. The goal of this course is to introduce students to major issues related to the conservation of biodiversity. Lectures will illustrate how science can be used to identify and solve conservation problems. Lectures will cover current threats to biodiversity (human population growth, extinctions, habitat destruction, degradation and fragmentation, overexploitation, invasive species, global climate change) and discuss how science can be used to help ameliorate these impacts.

**WILD 240 - Intro to Biostatistics. 3 Credits.**

Offered autumn. Introduction to statistical ecology: distributions, hypothesis testing, and fitting models to data with emphasis on problems in ecological sampling.

**WILD 274 - Human Dimensions of Wildlife. 3 Credits.**

Offered spring. This course provides a foundation for students to understand the human dimensions of fish and wildlife management. Successful resource management requires an understanding of how people value and interact with wildlife populations. We use contemporary wildlife challenges facing Montana as focal points for learning.

**WILD 280 - Fisheries Techniques. 3 Credits.**

This course provides an overview of fisheries techniques as they are applied in Montana. Students learn a wide variety of fisheries methods. Case studies and guest lectures expose students to current issues faced by fisheries managers in Montana. Field trips provide hands-on experience.

**WILD 285 - Wild Sustenance. 2 Credits.**

This course introduces hunting to college students at the University of Montana. The course is intended for students who have not had the opportunity to hunt. There are two components to the course: on campus class meetings and a 3-day immersive workshop at the Theodore Roosevelt Memorial Ranch owned by the Boone and Crockett Club in Dupuyer, MT. Students from a diversity of majors are encouraged to participate. On campus we discuss the role of hunting in wildlife management, the history of wildlife conservation, hunter ethics, and human dimensions of hunting. The 3-day field activity provides students time in the field, on the shooting range, and in the kitchen to understand the entire hunting process from field to table. While at the ranch, we discuss motivations for hunting, concerns of first-time hunters, firearm safety, selection, and many other topics. Open dialogue and respectful discourse is encouraged. Food is an important part of the program. We harvest a deer on the ranch and a professional butcher demonstrates how to process the deer and students complete the process. A professional chef prepares wild game every meal, and spends time with students on cooking game.

**WILD 291 - Special Topics. 1-6 Credits.**

(R-6) Offered intermittently. Experimental offerings of visiting professors, experimental offerings of new courses, or one-time offerings of current topics.

**WILD 346 - Wildlife Physiological Ecology. 3 Credits.**

Offered autumn. Prereq., BIOB 272. Restricted to majors in Wildlife Biology. How physiological and biochemical processes in animals influence behavior and ecology. Application of physiological approaches to wildlife conservation such as assessment of animal health, nutritional condition, and physiological performance.

**WILD 370 - Wildlife Habitat Conservation & Management. 4 Credits.**

Offered autumn and spring. Prereq., junior/senior standing in wildlife biology, STAT 216 or WILD 240, BIOE 370, BIOE 371, or consent of instr. Application of principles of wildlife biology to conservation and management of wild bird and mammal habitats including statistical and field applications.

**WILD 374 - Hunter Check Station. 1 Credit.**

(R-2) Offered autumn. Students learn techniques for determining species, age and sex of game animals, then work 3-5 days as volunteers at hunter check stations operated by management agencies.



**WILD 391 - Special Topics. 1-12 Credits.**

(R-12) Offered intermittently. Experimental offerings of visiting professors, experimental offerings of new courses, or one-time offerings of current topics.

**WILD 392 - Independent Study. 1-6 Credits.**

(R-6) Offered every term. Course material appropriate to the needs and objectives of the individual student.

**WILD 398 - Internship. 1-6 Credits.**

(R-6) Offered every term. Extended classroom experience that provides practical application of classroom learning during placements off campus. Prior approval must be obtained from the faculty supervisor. A maximum of 6 credits of Internship (198, 298, 398, 498) may count toward graduation.

**WILD 408 - Aquatic Habitat Conservation & Restoration. 4 Credits.**

Offered autumn. Prereq., STAT 216, WILD 240, or FORS 201; and BIOB 160 or BIOB 170N or BIOO 105N or BIOE 172N. Application of principles of freshwater ecology and fish ecology to conservation and restoration of aquatic habitats including statistical and field applications. Level: Undergraduate

**WILD 410 - Wildlife Policy. 3 Credits.**

Offered spring odd years. Restricted to students with at least junior standing. Overview of the laws affecting wildlife and how those laws are initiated, implemented, and enforced; impact of politics, interest groups, and agency jurisdictions. Level: Undergraduate

**WILD 470 - Conservation of Wildlife Populations. 4 Credits.**

Offered autumn and spring. Prereq., WRIT 101 or equivalent, BIOE 370, M 162 or M 171, STAT 216 or WILD 240, and senior standing in Biology, Forestry, Resource Conservation, Recreation Management or Wildlife Biology. Application of population ecology principles and theory to the conservation and management of wildlife populations. Level: Undergraduate-Graduate

**WILD 472 - Wildlife Handling & Chemical Immobilization. 2 Credits.**

Offered spring. Principles of wildlife chemical immobilization for researchers and managers. Ethical and legal issues, field organization, animal care and handling, immobilizing drugs, drug delivery systems, animal monitoring and veterinary emergencies. No labs. Level: Undergraduate-Graduate

**WILD 480 - The Upshot--Applied Wildlife Management. 3 Credits.**

Offered spring. Prereq/Coreq., WILD 370, WILD 408 or WILD 470. Designed for students to apply their knowledge in the development of wildlife management planning. Level: Undergraduate-Graduate

**WILD 485 - Aquatic Invertebrate Ecology. 3 Credits.**

Offered autumn. This course is designed to provide students an understanding of the life histories, ecology and importance of macroinvertebrates in freshwater aquatic systems. The primary focus will be on insects, although an introduction to other invertebrates will also be included. The lab portion will involve identification of major groups of aquatic macroinvertebrates and participation in an environmental assessment using invertebrates as indicators of stream condition and restoration efficacy. Level: Undergraduate

**WILD 491 - Special Topics. 1-12 Credits.**

(R-12) Offered intermittently. Experimental offerings of visiting professors, new courses, or one-time offerings of current topics. Level: Undergraduate-Graduate

**WILD 492 - Independent Study. 1-10 Credits.**

(R-10) Offered every term. Course material appropriate to the needs and objectives of the individual student.

**WILD 494 - Senior Wildlife Seminar. 1 Credit.**

Offered autumn and spring. Restricted to majors in Wildlife Biology with at least senior standing. Analysis and discussion led by students of current topics in wildlife biology. Level: Undergraduate-Graduate

**WILD 498 - Internship. 1-6 Credits.**

Offered every term. Extended classroom experience that provides practical application of classroom learning during placements off campus. Prior approval must be obtained from the faculty supervisor. A maximum of 6 credits of Internship (198, 298, 398, 498) may count toward graduation. Level: Undergraduate

**WILD 499 - Undergraduate Thesis. 1-3 Credits.**

(R-6) Offered autumn and spring. Restricted to students with at least senior standing. Preparation of major paper based on study or research of a topic selected with an advisor according to needs and objectives of student. Level: Undergraduate

**WILD 540 - Research Design. 3 Credits.**

Offered autumn. Students registering should have taken an introductory statistics course. Examination of study designs for experiments, quasi-experiments, observational studies, and sampling surveys with an emphasis on application. Level: Graduate

**WILD 541 - Research Design Lab. 1 Credit.**

(R-3) Coreq., WILD 540. Students will be expected to learn R programming skills, R data management and R graphing functions as well as an introduction to statistical analysis in R.

**WILD 542 - Statistical Applications in Wildlife Biology. 1-2 Credits.**

(R-5) Offered autumn odd-numbered years. Explores statistical problems encountered by wildlife biology and ecology graduate students. Students will bring statistical problems of interest to class where, as a group, we will explore analysis options, assumptions, pitfalls, and alternative solutions. Level: Graduate

**WILD 545 - Strong Inference Science. 1 Credit.**

(R-7) Offered fall. This course teaches the principles and philosophy of conducting strong inference science with practical application to students own thesis research. Level: Graduate

**WILD 562 - Wildlife Habitat Modeling. 4 Credits.**

Offered spring, odd years. A survey of theory and applications in the study of resource selection by animals. Level: Graduate

**WILD 563 - Topics in Habitat Ecology. 1 Credit.**

(R-15) Offered every term. Discussion of recent scientific papers on advances in ecology, conservation, and population dynamics as related to habitat ecology and conservation. Prior to registering for this course, WILD 562 is strongly recommended. Level: Graduate

**WILD 568 - Topics in Aquatic Ecology. 1 Credit.**

(R-15) Offered every term. Review and synthesis of the scientific literature current issues and analyses in aquatic ecology. We assume a general understanding of fish biology, aquatic ecology, as well as a background in population, community and ecosystem ecological concepts. Level: Graduate

**WILD 571 - Estimation of Demographic Parameters. 4 Credits.**

Offered autumn of even years. Examines methods for estimating demographic parameters of wildlife populations including survival, fecundity, abundance, and movement. Considers theory of capture-recapture and count-based modeling. Includes maximum likelihood and Bayesian treatments of the problems.

**WILD 585 - Theoretical Ecology. 4 Credits.**

Offered intermittently. This class provides a general toolbox of ecological modeling approaches. It will be more about how to model than about models themselves, but in illustration we will cover a variety of commonly used ecological and evolutionary models, ranging from behavior of individuals (optimality, game theory) to populations (structured and unstructured, logistic growth, matrix models) to communities (competition, predation, parasitism). The focus will be on formalizing conceptual ideas into a mathematical framework and will not deal heavily with data. (Of course, data is important, but other courses here concentrate on data and model fitting.) Most weeks, sessions will each cover a new theoretical model, including derivation of the equations from ecological theory, and students will complete an assignment that includes coding the model in R and exploring its dynamics. Other sessions will be discussion of a journal article that includes the model(s), so students can become comfortable with seeing and comprehending mathematical notation and theoretical literature. The course will culminate with a project in which students will design a model for some aspect of their study system that could potentially be published.

**WILD 590 - Research. 1-15 Credits.**

(R-15) Offered every term. Restricted to graduate students in Wildlife Biology. Directed individual research and study appropriate to the background and objectives of the student. Level: Graduate

**WILD 591 - Special Topics. 1-12 Credits.**

(R-12) Offered intermittently. Experimental offerings of visiting professors, experimental offerings of new courses, or one-time offerings of current topics. Level: Graduate

**WILD 592 - Independent Study. 1-15 Credits.**

(R-15) Offered every term. Course material appropriate to the needs and objectives of the individual student. Level: Graduate

**WILD 594 - Graduate Seminar in Wildlife Biology. 1 Credit.**

(R-15) Offered autumn and spring. Restricted to graduate students in Wildlife Biology or Fish and Wildlife Biology. Analysis of selected problems in wildlife biology and conservation. Level: Graduate

**WILD 599 - Professional Paper. 1-15 Credits.**

(R-15) Offered every term. Restricted to graduate students in Wildlife Biology. Professional paper written in the area of the student's major interest based on either primary or secondary research. Subject matter must be approved by graduate committee. Graded credit/no-credit only. Level: Graduate

**WILD 690 - Research. 1-20 Credits.**

(R-20) Offered every term. Directed individual research and study appropriate to the background and objectives of the student. Level: Graduate

**WILD 699 - Thesis. 1-20 Credits.**

(R-20) Offered every term. Restricted to graduate students in Wildlife Biology. Preparation of thesis. Level: Graduate

## Forestry (FORS)

**FORS 130 - Introduction to Forestry Field Skills. 2 Credits.**

Offered autumn. This course is focused on developing introductory forestry field skills through experiential learning at the Colleges Lubrecht Experimental Forest. Classroom lecture and experiences that introduce students to orienteering, map reading, GPS, tree measurements, fire and fuels management, recreation, human dimensions, hydrology, wood products, and the careers possible with a Forestry degree.

**FORS 140 - Urban Forestry. 2 Credits.**

Offered spring. An introduction to urban forestry principles and practices. Benefits of the urban forest. Topics covered include plant species selection, site design, site assessment, planting, watering, fertilization, insects and diseases, pruning and tree care, inventory of property values, and community forestry development.

**FORS 191 - Special Topics. 1-6 Credits.**

(R-6) Offered intermittently. Experimental offerings of visiting professors, experimental offerings of new courses, or one-time offerings of current topics.

**FORS 192 - Independent Study. 1-3 Credits.**

(R-6) Offered every term. Course material appropriate to the needs and objectives of the individual student.

**FORS 201 - Forest Biometrics. 3 Credits.**

Offered autumn. Prereq., M 115 or M 121 or M 122 or M 151 or M 162 or M 171 or M 172. Introduction to probability and statistical methods for forestry and environmental sciences covering natural resource applications of common probability distributions, data analysis, hypothesis testing, and regression.

**FORS 202 - Forest Mensuration. 3 Credits.**

Offered spring. Prereq., M 121 and M 122 or M 151 or M 162 or M 171 or M 172; and either prereq. or coreq. FORS 201 or STAT 216 or SOCI 202 or WILD 240. The theory and practice of timber inventory and growth projection, including field measurements, sampling procedures, statistical methods, inventory compilation, and stand growth simulation under specified management prescriptions. Stand growth under specified management prescriptions.

**FORS 230 - Fire Management & Environmental Change. 3 Credits.**

Offered Spring. Introduction to wildland fire and its role as a transformative process in the environment. Topics include pyrogeography, fire behavior, fire ecology, fire policy, and fire management. Examines the role of fire in shaping ecological and social systems, with a focus on societal issues of natural resources, human health, land use, climate change, and economics. Provides foundational understanding of first principles. Serves as a stepping off point for further study of fire.

**FORS 232 - Forest Insects & Diseases. 3 Credits.**

Offered spring. Identification, ecology and management of insects and pathogens affecting western North American forest.

**FORS 241N - Dendrology. 3 Credits.**

Offered autumn and spring. Suggested coreq., FORS 240. Methods and techniques for identifying the major families of North American trees, based on gross morphological and anatomical features. Building and use of identification keys. Gen Ed Attributes: Natural Science Lab Course (N) Gen Ed Attributes: Natural Science Lab Course, Natural Science

**FORS 250 - Intro to GIS for Forest Mgt. 3 Credits.**

Offered every term. This course is designed as a practical introduction to the use of Geographic Information Systems (GIS) for storing, retrieving, analyzing and displaying spatial data. It will also cover the history of cartography and the conventions of the modern map-making process. Students need to register for a required lab section. Credit cannot be earned for both FORS 250 and GPHY 284.

**FORS 291 - Special Topics. 6 Credits.**

(R-6) Offered intermittently. Experimental offerings of visiting professors; new courses or one-time offerings of current topics.

**FORS 292 - Independent Study. 1-3 Credits.**

(R-8) Offered every term. Course material appropriate to the needs and objectives of the individual student.

**FORS 298 - Internship. 1-6 Credits.**

Offered fall. Restricted to majors in Forestry. Extended classroom experience that provides practical application of classroom learning during placements off campus. A maximum of 6 credits of Internship (198, 298, 398, 498) may count toward graduation.

**FORS 310 - Field Methods in Forest Ecology. 3 Credits.**

This course introduces students to all aspects of forest demography and forest community ecology in the field. Particular attention is given to the agents of woody plant mortality, including beetle gallery identification, pathogenic fungi, spatially explicit density-dependent mortality, fire, and the effects of landscape position. Students learn how data are collected to maximize information used to answer scientific questions, including the relationships between accuracy, precision, uncertainty, and cost (in time and money). Students then collect tree demography data within the Yosemite Forest Dynamics Plot. Students learn how to measure fuel loading at landscape scales according to federal standards. In addition to specific measurements in one forest type (white fir/sugar pine), students visit and compare the other principal forest types of the Sierra Nevada and White Mountains (ponderosa pine, red fir, Jeffrey pine, lodgepole pine, whitebark pine, pinyon/juniper, and bristlecone pine).

**FORS 320 - Forest Environmental Economics. 3 Credits.**

Offered spring. Prereq. M 121 and M 122 or M 151 or M 162 or M 171 or M 172. Economic techniques to support decision making about the allocation of scarce resources in relation to the management of forests for timber and other ecosystem services.

**FORS 330 - Forest Ecology. 3 Credits.**

Offered autumn. Prereq., one of BIOO 105N, BIOB 170N, BIOE 172N, BIOB 160, or BIOB 101N; and either prereq. or coreq. one of ENSC 245N, FORS 241N, NRSM 211N, or GPHY111N. Examination of physical and biological factors affecting forest structure, composition, and function, including biodiversity and species interactions, succession, disturbance, and nutrient cycling. Introduces foundational ecological theory and terminology, illustrated with examples from local, regional, and global forest ecosystems.

**FORS 331 - Wildland Fuel Management. 3 Credits.**

Offered spring. Prereq., FORS 230. The fire ecology of some western vegetation types is discussed. Elements of the principles of wildland fuel management are presented. Prescribed fire use and mechanical manipulation are matched to historic ecosystem processes. Smoke management considerations and health issues are also presented.

**FORS 333 - Fire Ecology. 3 Credits.**

Offered autumn. Prereq., FORS 230 or FORS 330 or BIOE 370 or BIOE 342 or NRSM 462. A detailed analysis of fire ecology in terrestrial ecosystems with a focus on the Rocky Mountains, including fire history, fire effects, landscape patterns, land use legacies, management implications, and current topics. Includes at least one required all-day field trip.

**FORS 335 - Forest Ecology Field Laboratory. 1 Credit.**

Prereq., FORS 130 or FORS 202 and coreq., FORS 330. Field course with overnight camping. Must be able to safely travel off trail on steep, forested terrain. Introduces field techniques for measuring forest ecosystem attributes and illustrates foundational forest ecology theory and concepts with field visits to local and regional forests.

**FORS 340 - Sustainable Forest Products. 3 Credits.**

Offered spring. Survey of forest products, including manufacture, use, markets, and impact on forest management. Life cycle analysis of wood products is compared to common alternatives. Labs include visits to area forest product manufacturing facilities including an all-day field trip.

**FORS 341 - Timber Harvesting & Roads. 3 Credits.**

Offered spring. An overview of harvesting system capabilities and selection for multiple resource objectives. Fundamentals of forest road management. Best management practices as they apply to forest operations in Montana and the western United States.

**FORS 342 - Wood Anatomy, Properties, & Identification. 3 Credits.**

Offered spring. Prereq., BIOO 105N or FORS 241N. Lecture and laboratory investigation of the structure, identification, and physical and mechanical properties of the commercial tree species of North America.

**FORS 347 - Multiple Resource Silviculture. 3 Credits.**

Offered spring. Prereq., FORS 330 or BIOE 370. Credit not allowed for both FORS 347 and 349. An introduction to the concepts and application of silvicultural techniques to forest ecosystems to meet multiple resource objectives.

**FORS 349 - Practice of Silviculture. 3 Credits.**

Offered autumn. Prereq., FORS 202 and FORS 241N. Prereq. or coreq., FORS 330. Practice of Silviculture is designed primarily for Forestry majors (open to others with appropriate prerequisites), and will consider the conceptual foundations behind various silvicultural practices and techniques, as well as and their application in forest ecosystems to meet multiple resource objectives. The course will cover natural stand dynamics, stand assessment and site classification schemes, even- and uneven-aged silvicultural systems, thinning/stand density concepts, regeneration practices, stand diagnosis and prescription development, vegetative management strategies for diverse objectives, along with quantitative assessment and modeling of alternative prescriptions.

**FORS 350 - Forestry Apps of GIS. 3 Credits.**

Offered spring. Prereq., FORS 250 or GPHY 284. Introduction to the basic concepts and techniques of computerized spatial data management and analysis systems and application to natural resource management.

**FORS 351 - Env Remote Sensing. 3 Credits.**

Offered spring. The theory and application of photo- and electro-optical remote sensing for mapping resources and developing information systems.

**FORS 391 - Special Topics. 12 Credits.**

(R-12) Offered intermittently. Experimental offerings of visiting professors, experimental offerings of new courses, or one-time offerings of current topics.

**FORS 392 - Independent Study. 1-3 Credits.**

(R-10) Offered every term. Course material appropriate to the needs and objectives of the individual student.

**FORS 398 - Internship. 1-6 Credits.**

(R-6) Offered every term. Extended classroom experience that provides practical application of classroom learning during placements off campus. Prior approval must be obtained from the faculty supervisor. A maximum of 6 credits of Internship (198, 298, 398, 498) may count toward graduation.

**FORS 434 - Advanced Forest Roads. 3 Credits.**

Offered autumn. Prereq., FORS 341. The purpose of this course is to help students understand the principles and skills of forest road design and the concepts of forest transportation planning. The course will cover the basic topics of road location, design, construction, and maintenance and provide students with techniques to identify the combination of roads, facilities and transport systems which minimize costs and negative environmental impacts. Level: Undergraduate-Graduate

**FORS 435 - Advanced Timber Harvesting. 3 Credits.**

Offered autumn. Prereq., FORS 341. This course covers the fundamentals of logging feasibility and cost analyses of various timber harvesting systems including the characteristics and performance of ground vehicles, cable and aerial systems; cost factors and cost analysis procedures; safety issues; and environmental impacts of harvesting systems. Level: Undergraduate-Graduate

**FORS 440 - Forest Stand Management. 3 Credits.**

Offered autumn. Prereq., FORS 202 and FORS 341 and FORS 347 or FORS 349. The management and manipulation of forest stands to reach multiple objectives, with a focus on the planning of forest operations for a community partner. Level: Undergraduate-Graduate

**FORS 444 - Applied Methods in Forest Restoration and Utilization. 1-3 Credits.**

(R-9) Offered every term. Meeting all day on Saturdays, and some Sundays, this course involves training students to safely and efficiently identify forest stands to be restored through appropriately-planned management activities including both live and dead timber felling operations, manufacture of sawlogs and pulpwood, proper management of slash and residuals, grapple skidding and the production of lumber using both circular sawmill and bandsaw mill. Level: Undergraduate-Graduate

**FORS 481 - Forest Planning. 3 Credits.**

Offered spring. Prereq., FORS 320; and FORS 347 or FORS 349. Integrated multiple use planning at the forest-wide level: defining multi-resource management goals, generating management alternatives, projecting outcomes, assessing environmental impacts, and implementing preferred option. Level: Undergraduate-Graduate

**FORS 491 - Special Topics. 1-12 Credits.**

(R-12) Offered intermittently. Experimental offerings of visiting professors, experimental offerings of new courses, or one-time offerings of current topics. Level: Undergraduate-Graduate

**FORS 492 - Independent Study. 1-3 Credits.**

(R-10) Offered every term. Course material appropriate to the needs and objectives of the individual student. Level: Undergraduate

**FORS 495 - Wildland RxFire Practicum. 3 Credits.**

Students should have prior fire experience. An intensive field course providing students with technical training, practical applications, and theoretical foundations in ecological burning for restoration purposes. Class is typically held in southeastern United States. Co-convened with FORS 544. Level: Undergraduate

**FORS 498 - Internship. 1-6 Credits.**

Offered every term. Extended classroom experience that provides practical application of classroom learning during placements off campus. Prior approval must be obtained from the faculty supervisor. A maximum of 6 credits of Internship (198, 298, 398, 498) may count toward graduation. Level: Undergraduate-Graduate

**FORS 499 - Senior Thesis. 1-3 Credits.**

Offered autumn and spring. Restricted to students with senior standing. Preparation of a major paper based on study or research in a field selected according to the needs and objectives of the student. Level: Undergraduate

**FORS 505 - Sampling Methods. 3 Credits.**

Offered spring. Fundamentals of statistical sampling emphasizing natural and environmental resource applications. Principles of inferences and alternative estimators are studied in the context of simple random, systematic, unequal probability, stratified, and 3P/Poisson designs.

Variable radius plot sampling, line intersect sampling, and other probability proportional to size designs used in forest and ecological inventories are also covered. Level: Graduate

**FORS 531 - Forest Community Ecology. 3 Credits.**

Prior coursework or experience in ecology, botany, or forestry is strongly recommended. This course provides a foundation in ecological theory as well as an introduction to current findings and recent advances in forest community ecology, stand structure dynamics, and forest disturbance process. Level: Graduate

**FORS 535 - Applied Forest Ecology. 3 Credits.**

This course covers the use of ecological theory and data in the design of silvicultural treatments to achieve multiple management objectives, with particular emphasis on forest restoration and climate change adaptation. We examine methods of silvicultural design, including use of historical and contemporary reference conditions, and climate adaptation strategies. Analysis exercises use the open source statistical program and language R for data analysis, visualization, and modeling, especially of spatial point pattern data. Introduction to monitoring and adaptive management of silvicultural treatments. Level: Graduate

**FORS 538 - Ecological Statistics. 3 Credits.**

Offered autumn. This is an applied course covering advanced statistical modeling techniques using examples from forestry, ecology, and the environmental sciences. Covers data management, visualization, and scripting with R, an open source data analysis and statistics platform. Explores various parametric and semi-parametric modeling strategies that allow for non-linear response functions and/or non-Gaussian response distributions. Estimation and inference in the context of generalized linear models, generalized additive models, and classification and regression trees are discussed using examples from the scientific literature. Lays the foundation for subsequent graduate-level analytic coursework. Level: Graduate

**FORS 540 - Fire and Disturbance Ecology. 3 Credits.**

This course covers foundational concepts in disturbance ecology and fire ecology, examines important and influential theories in both fields, and focuses on currently literature at the cutting-edge of fire ecology research. Level: Graduate

**FORS 544 - Adv. Wildland RXFire Practicum. 3 Credits.**

An intensive field course providing students with technical training, practical applications, and theoretical foundations in ecological burning for restoration purposes. Students will practice leadership skills by supervising and training fire personnel in application of prescribed fire. Class typically held in southeastern United States. Co-convened with FORS 495. Level: Graduate



**FORS 558 - Landscape Ecology. 3 Credits.**

Offered Spring semester even years. Prereq., FORS 538. The purpose of this course is to provide students with an introduction to the discipline of landscape ecology with a focus on applications within ecology and natural resource management. In addition to studying the fundamentals of landscape ecology through reading primary literature, students will gain exposure to a range of tools used in the analysis of geo-spatial data including raster analysis, environmental remote sensing, state transition models and species distribution models. Another objective is to engage students in student-directed learning within an interdisciplinary environment to improve and refine students oral and written communication skills. Level: Graduate

**FORS 590 - Graduate Research. 1-15 Credits.**

(R-15) Offered every term. Independent research under the direction of a faculty member. Level: Graduate

**FORS 591 - Special Topics. 1-12 Credits.**

(R-12) Offered intermittently. Experimental offerings of visiting professors, experimental offerings of new courses, or one-time offerings of current topics. Level: Graduate

**FORS 592 - Independent Study. 1-3 Credits.**

(R-10) Offered every term. Course material appropriate to the needs and objectives of the individual student. Level: Graduate

**FORS 594 - Graduate Seminar. 1 Credit.**

(R-12) Offered autumn. A review and discussion of current research. Topics vary. Level: Graduate

**FORS 598 - Internship. 1-15 Credits.**

(R-15) Offered every term. Extended classroom experience that provides practical application of classroom learning during placements off campus. Prior approval must be obtained from the faculty supervisor. Level: Graduate

**FORS 599 - Professional Paper. 1-15 Credits.**

(R-15) Offered autumn and spring. Preparation of Master of Ecosystem Management professional paper. Level: Graduate

**FORS 690 - Graduate Research. 1-15 Credits.**

(R-15) Offered every term. Independent graduate research in forest management, wood science, soils, wildlife management, silviculture, recreation and other topic areas. Level: Graduate

**FORS 699 - Thesis. 1-15 Credits.**

(R-30) Offered every term. Preparation of thesis/dissertation. Level: Graduate

## French (FRCH)

**FRCH 101 - Elementary French I. 4 Credits.**

Offered autumn. Active skills: listening, speaking, reading and writing plus basic cultural analysis.

**FRCH 102 - Elementary French II. 4 Credits.**

Prereq., FRCH 101. Offered spring. Continuation of 101. Gen Ed Attributes: Language Requirement

**FRCH 191 - Special Topics. 1-9 Credits.**

(R-9) Offered intermittently. Experimental offerings of visiting professors, experimental offerings of new courses, or one-time offerings of current topics.

**FRCH 201 - Intermediate French I. 4 Credits.**

Offered autumn. Prereq., FRCH 102. Expansion of active skills: listening, speaking, reading, writing plus further cultural analysis. Gen Ed Attributes: Language Requirement

**FRCH 202 - Intermediate French II. 4 Credits.**

Offered spring. Prereq., FRCH 201. Continuation of 201. Gen Ed Attributes: Language Requirement

**FRCH 291 - Special Topics. 1-9 Credits.**

(R-9) Offered intermittently. Experimental offerings of visiting professors, experimental offerings of new courses, or one-time offerings of current topics.

**FRCH 292 - Independent Study. 1-6 Credits.**

(R-6) Offered autumn and spring. Course material appropriate to the needs and objectives of the individual student.

**FRCH 294 - Seminar/Workshop. 1-6 Credits.**

(R-6) Offered intermittently. A review and discussion of current research. Topics vary.

**FRCH 301 - Advanced Grammar/Oral and Written Expression. 3 Credits.**

Prereq., FRCH 202. Advanced grammar review including literary tenses; developmental and written skills in French. Gen Ed Attributes: Language Requirement

**FRCH 310 - French Literature and Culture: Middle Ages and Renaissance. 3 Credits.**

Offered intermittently. Prereq., FRCH 301. French literature of the Middle Ages and Renaissance with a focus on cultural identity.

**FRCH 311 - French Literature and Culture: 17th Century. 3 Credits.**

Offered spring. Prereq., FRCH 202 or FRCH 301. French literature of the 17th century within its cultural context.

**FRCH 312 - French Literature and Culture: 19th Century. 3 Credits.**

Offered spring. Prereq., FRCH 301. French literature from the 19th Century within its cultural context.

**FRCH 313 - French Literature and Culture: 20th Century. 3 Credits.**

Offered spring. Prereq., FRCH 301. Survey of literature and culture of 20th Century France, with a focus on the significance of cultural identity.

**FRCH 314 - French Literature and Culture: 18th Century. 3 Credits.**

Offered fall. Prereq., FRCH 301. French literature of the 18th century within its cultural context.

**FRCH 315 - Literature and Culture of the Francophone World. 3 Credits.**

Prereq., FRCH 301. Survey of literature and culture of the diverse Francophone World with a focus on the significance of plural cultural identities.

**FRCH 338 - The French Cinema. 3 Credits.**

(R-6) Offered intermittently. An historical, aesthetic, and critical survey of the French cinema, from its beginnings in 1895 through the contemporary cinema (Muet, classical, Realism, Nouvelle Vogue, etc.) With an introduction to contemporary film criticism. Students taking the course for French credits are required to do research, reading, and writing in the French language.

Gen Ed Attributes: Literary & Artistic Studies

**FRCH 339 - Survey of African Cinema. 3 Credits.**

Offered intermittently. A diachronic survey of African cinema accompanied by interpretation and evaluation of textual dimensions of films through filmic critical theory.

**FRCH 350 - French Civilization & Culture. 3 Credits.**

(R-6) Offered spring. Prereq., FRCH 301. Chronological/topical study of French culture.

**FRCH 391 - Special Topics. 1-9 Credits.**

(R-9) Offered intermittently. Experimental offerings of visiting professors, experimental offerings of new courses, or one-time offerings of current topics.



**FRCH 392 - Independent Study. 1-3 Credits.**

(R-3) Offered autumn and spring. Course material appropriate to the needs and objectives of the individual student.

**FRCH 394 - Seminar/Workshop. 1-12 Credits.**

(R-12) Course material appropriate to the needs and objectives of the individual student.

**FRCH 420 - Studies in French Prose. 3 Credits.**

Offered intermittently. Prereq., FRCH 301 and one of FRCH 310, FRCH 311, FRCH 312, or FRCH 313. Evolution of textuality from the Renaissance to the 20th century: the novel. Level: Undergraduate-Graduate

**FRCH 421 - Advanced Stylistics & Oral Arguments. 3 Credits.**

Prereq., FRCH 301 and one of FRCH 310, FRCH 311, FRCH 312 or FRCH 313. Intensive analysis of usage and style in written and oral argumentation at various linguistic levels. Level: Undergraduate-Graduate

**FRCH 430 - Studies in French Drama. 3 Credits.**

Offered intermittently. Prereq., FRCH 301 and one of FRCH 310, FRCH 311, FRCH 312 or FRCH 313. Evolution of theatre from the Renaissance to the 20th century or performance of a French play in French. Level: Undergraduate-Graduate

**FRCH 491 - Special Topics. 1-9 Credits.**

(R-9) Offered intermittently. Experimental offerings of visiting professors, experimental offerings of new courses, or one-time offerings of current topics. Level: Undergraduate-Graduate

**FRCH 492 - Independent Study. 1-6 Credits.**

(R-6) Offered autumn and spring. Course material appropriate to the needs and objectives of the individual student. Level: Undergraduate-Graduate

**FRCH 494 - Seminar/Workshop. 1-9 Credits.**

(R-9) Offered autumn and spring. Studies in major authors, periods, genres, and/or cultural studies. Level: Undergraduate-Graduate

## General Engineering Core (EGEN)

**EGEN 101 - Intro to Engineering Calculation & Problem Solving. 3 Credits.**

Offered autumn. Prereq. or coreq., M 151, or M 121 and M 122, or M 171 or M 172 or ALEX score of 5, or M03-Maplesoft Calculus score  $\geq$  15. An introduction to engineering calculations, problem solving, and design. Students are taught to solve and present engineering problems on computers using spreadsheet and graphic software (AutoCAD). In addition, there will be discussions on engineering failures and engineering ethics.

**EGEN 201 - Engineering Statics. 3 Credits.**

Prereq., PHSX 215N and M 171. Prereq. or coreq., M 172. Equilibrium of particles and rigid bodies; addition and resolution of forces, vector algebra, moments and couples, resultants and static equilibrium, equivalent force systems, centroids, center of gravity, free body method of analysis, two and three dimensional equilibrium, trusses, frames, friction, and method of virtual work.

**EGEN 202 - Engineering Mechanics - Dynamics. 3 Credits.**

Prereq., EGEN 201 and M 172. Particle and rigid body kinematics and kinetics; rectilinear, curvilinear, and relative motion, equations of motion, work and energy, impulse and momentum, systems of particles, rotation, rotating axes, rigid body analysis, angular momentum, vibration, and time response.

**EGEN 391 - Special Topics. 1-6 Credits.**

(R-24) Offered intermittently. Experimental offerings of visiting professors, experimental offerings of new courses, or one-time offerings of current topics.

## Geography (GPHY)

**GPHY 111N - Intro to Physical Geography: Climate, Landforms, and Vegetation. 3 Credits.**

Offered spring. Introduction to earth system science, the study of the earth's climate, surface processes, and ecosystems, and their distributions, functions, and interactions.

Gen Ed Attributes: Natural Science

**GPHY 112N - Intro to Physical Geography Laboratory: Climate, Landforms, and Vegetation Lab. 1 Credit.**

Offered spring. Prereq. or coreq., GPHY 111N. Introduction to techniques and methods needed to understand and analyze data, graphs, maps, and images of the earth's climate, surface processes, and ecosystems, and their interactions.

Gen Ed Attributes: Natural Science Lab Course, Natural Science

**GPHY 121S - Human Geography. 3 Credits.**

Offered autumn and spring. Introduction to Human Geography focuses upon the linkages between geography and society including analysis of regions, ethnic groups, urban landscapes, migration and population change, geopolitics, economics, and cultural differences.

Gen Ed Attributes: Social Sciences, Cultural & International Diversity

**GPHY 141S - Geography of World Regions. 3 Credits.**

Offered autumn and/or spring. An overall view of how the lands and peoples of the world are organized into coherent geographical regions, how landscapes differ from region to region, and how the people differ in terms of their traits, beliefs, ways of life, and economic livelihood.

Gen Ed Attributes: Social Sciences, Cultural & International Diversity

**GPHY 241 - Montana. 3 Credits.**

Offered autumn. The physical, cultural, economic, political, and historical geography of the state including Montana's mountains and the prairies.

**GPHY 245 - The Middle East. 3 Credits.**

Offered intermittently. A survey of the biophysical and cultural geography of Southwest Asia and North Africa. Emphasis on environmental change; prehistory; patterns of cultural and historical change; issues of socio-economic, religious, and political diversity; and the broader political significance of the region.

**GPHY 284 - Intro to GIS and Cartography. 3 Credits.**

Offered every term. This course is designed as a practical introduction to the use of Geographic Information Systems (GIS) for storing, retrieving, analyzing and displaying spatial data. It will also cover the history of cartography and the conventions of the modern map-making process. Students need to register for a required lab section. Credit cannot be earned for both FORS 250 and GPHY 284.

**GPHY 291 - Special Topics. 1-6 Credits.**

(R-6) Offered intermittently. Experimental offerings of visiting professors, experimental offerings of new courses, or one-time offerings of current topics.

**GPHY 295 - Mountain Field Studies. 1 Credit.**

(R-6) Offered autumn and spring as a series of one-credit courses with a maximum of three-credits per semester. Field studies of Montana's Rocky Mountain Front, Crown of the Continent, or Yellowstone. Students prepare to conduct field work, spend time in the field observing wildlife, physical landscapes and cultural aspects of these landscapes, and follow up their observations in written reports.

**GPHY 311N - Biogeography. 3 Credits.**

Offered intermittently. Changing patterns of plant and animal distributions in space and time. Combination of historical and ecological approaches to biological species and communities. Study of external causes of plant and animal distributions, especially climatic change and human impacts.

Gen Ed Attributes: Natural Science

**GPHY 317 - Geomorphology. 3 Credits.**

Offered autumn even-numbered years. Prereq., GPHY 111N or GEO 101N. Important landforms and landscapes, their biophysical processes, and their formative elements.

**GPHY 323S - Economic Geography of Rural Areas. 3 Credits.**

Offered spring odd-numbered years. Study of the location of economic activities, including agriculture, industry, and services. Focus on the changing nature of rural areas.

Gen Ed Attributes: Social Sciences

**GPHY 335 - Water and Sustainability. 3 Credits.**

Offered autumn. Prereq., WRIT 101 or WRIT 201. Geographical perspective on water resource issues and challenges facing the public, resource managers, and water users in the western United States. Examines concepts, terms, and regulatory environment which provide the foundation for sustainable water management and policy.

Gen Ed Attributes: Writing in the Disciplines

**GPHY 338 - Mountains and Society. 3 Credits.**

Offered spring. Physical and cultural aspects of the mountains of North and South America, Europe, Africa, and Asia. Emphasis on combining the physical landscape with an overview of the indigenous people who inhabit the worlds' heights.

**GPHY 348 - Field Studies in Geography. 3 Credits.**

(R-12) Offered autumn and spring. Through extended backcountry travel, experiential examination of regional landforms, climate, hydrology, soils, and patterns of vegetation and wildlife. Local landscapes, natural-resource endowment, and societies with particular emphasis on human-environmental interaction. Geographical skills and techniques, including map reading and navigational skills. Offered by the Wild Rockies Field Institute as part of a semester-long, 12-credit field experience with corequisite courses in allied fields.

**GPHY 378 - Preceptorship in Geography. 1-3 Credits.**

(R-6) Offered autumn and spring. Restricted to students with at least junior standing. Assisting a faculty member by tutoring, conducting review sessions, helping students with research projects, and carrying out other class-related responsibilities.

**GPHY 385 - Field Techniques. 3 Credits.**

Offered autumn and intermittently in spring. Field techniques used by geographers and planners in making field observations and in collecting data.

**GPHY 391 - Special Topics. 1-12 Credits.**

(R-12) Offered intermittently. Experimental offerings of visiting professors, experimental offerings of new courses, or one-time offerings of current topics.

**GPHY 392 - Independent Study. 1-9 Credits.**

(R-9) Offered every term. Course material appropriate to the needs and objectives of the individual student.

**GPHY 394 - Seminar. 1-9 Credits.**

(R-9) Offered intermittently. A review and discussion of current research. Topics vary.

**GPHY 395 - Field Studies. 1-9 Credits.**

(R-9) Offered fall and/or spring. Field experience in the region. Includes geographically relevant field courses offered as part of Swan Valley Connections' Landscape and Livelihood Field Semester, focusing on natural and human communities and on conservation solutions of the Southwest Crown of the Continent Region: Sustainability and Agriculture (3 cr), and Biogeography of Northwest Montana (4 cr).

**GPHY 400 - Geography Capstone. 1 Credit.**

Offered autumn. Restricted to students with senior standing. Exploration of current research, projects, and programs of geographers and scientists/practitioners in allied disciplines and fields, and preparation of a professional portfolio. Student preparation for post-graduate professional and academic careers is emphasized. Level: Undergraduate

**GPHY 421 - Sustainable Cities. 3 Credits.**

Offered spring even-numbered years. Restricted to students with at least junior standing. A discussion of sustainability efforts in cities around the world. Topics include, for example, urban sprawl and smart growth, alternative energy, public transportation, integrated waste management, integrated water management, green architecture, and urban agriculture. Level: Undergraduate-Graduate

**GPHY 433 - Community Resilience. 3 Credits.**

Prereq., WRIT 101 or WRIT 201. Examines human-environment relations and interactions. Topics include: human geographic perspectives on landscape, cultural ecology, political ecology, community resilience in relation to complex adaptive systems, and planning applications. Level: Undergraduate-Graduate

Gen Ed Attributes: Writing in the Disciplines

**GPHY 465 - Planning Principles & Processes. 3 Credits.**

Offered autumn even-numbered years. Restricted to students with at least junior standing. Surveys planning principles, practices and issues in urban and rural environments. Attention is devoted to Montana, state planning programs in the United States., and federal programs and policies that influence land-use planning. Emphasizes skills and techniques used in plan development and implementation. Level: Undergraduate-Graduate

**GPHY 466 - Environmental Planning. 3 Credits.**

Offered autumn odd-numbered years. Introduction to practice of environmental planning which includes elements of physical planning, planning design at the landscape scale, and conservation planning. Includes field visits and project-based work. Level: Undergraduate-Graduate

**GPHY 468 - Community & Regional Analysis. 3 Credits.**

Offered autumn. Coreq., GPHY 469. Socio-demographic analysis of communities and regions: population, employment, and spatial interaction. Hands-on course designed for future planners, GIS analysts, and others interested in socio-demographic change. To succeed in this course students should have comfort with basic algebra. Level: Undergraduate-Graduate

**GPHY 469 - Planning & Analysis Laboratory. 1 Credit.**

Offered autumn. Coreq., GPHY 468. Laboratory to accompany GPHY 468. Level: Undergraduate-Graduate

**GPHY 474 - UAV Remote Sensing for Field Ecology. 3 Credits.**

Offered summer only at the Flathead Lake Biological Station. Prereq., FORS 250 or GPHY 284. This course will introduce students to field-based methods of close-range remote sensing in freshwater ecosystems. Students will gain knowledge of basic spatial analysis through GIS and remote sensing techniques. Students will learn basic applications of UAVs and Acoustic Doppler Profilers, two remote sensing instruments of fast-growing interest in ecological research and application. Students will learn about essentials to operate UAVs and ADPs, initial post-processing of data products and integrating these data into ecological research and application. Level: Undergraduate-Graduate

**GPHY 481 - Advanced Cartographic Design. 3 Credits.**

Offered autumn. Prereq., GPHY 284 or FORS 250. This course concentrates on the presentation of spatial data and the construction of cartographic products that have clear communication and excellent aesthetic design. The class meets the University's service learning course objectives through a semester long project where students consult with a client, design and construct a map, and deliver a final product. Level: Undergraduate-Graduate

**GPHY 482 - Spatial Analysis & GIS. 3 Credits.**

Offered intermittently. Prereq., GPHY 284 or FORS 250. Coreq., GPHY 489. Quantitative analysis of spatial data, including techniques for pattern analysis, classification, and interpolation within a GIS environment. Level: Undergraduate-Graduate

**GPHY 485 - Internet GIS. 3 Credits.**

Offered intermittently. Prereq., GPHY 284 or FORS 250. Principles and techniques for distributing GIS and mapping applications through the Internet. Students need to register for a required linked lab section. Level: Undergraduate-Graduate

**GPHY 486 - Transport, Planning & GIS. 2,3 Credits.**

Coreq., GPHY 489. A project-oriented course focusing on patterns and trends in urban passenger transportation, principles of transport planning, and modeling in GIS-T. To succeed in this course students should have comfort with basic algebra and statistics. Level: Undergraduate-Graduate

**GPHY 487 - Remote Sensing/Raster GIS. 3 Credits.**

Offered autumn. Prereq. or coreq., GPHY 284 or FORS 250. Coreq., GPHY 489. Basic principles of remote sensing and analyzing images within a raster GIS. Review current data sources. Level: Undergraduate-Graduate

**GPHY 488 - Applications of GIS. 3 Credits.**

Offered spring. Prereq., GPHY 284 or FORS 250. Application of GIS for managing natural and cultural resources. Covers choropleth maps, dot maps, proportional figure maps, isarithmic maps, and others. Includes computer mapping and GIS exercises. Students need to register for a required linked lab section. Level: Undergraduate-Graduate

**GPHY 489 - Cartography/GIS Laboratory. 1 Credit.**

(R-4) Offered autumn and spring. Prereq., or coreq., GPHY 482, 486 or 487. Lab to accompany cartography and GIS courses. Level: Undergraduate-Graduate

**GPHY 491 - Special Topics. 9 Credits.**

(R-9) Offered intermittently. Experimental offerings of visiting professors, experimental offerings of new courses, or one-time offerings of current topics. Level: Undergraduate-Graduate

**GPHY 492 - Independent Study. 1-9 Credits.**

(R-9) Offered every term. Course material appropriate to the needs and objectives of the individual student. Level: Undergraduate-Graduate

**GPHY 497 - Workshop in Teaching Geography. 2-3 Credits.**

Offered intermittently. Concepts and techniques in geography, with emphasis on their use in teaching geography in Montana schools. Students are required to prepare and present a teaching unit project. Designed for pre-service or in-service teachers. Level: Undergraduate-Graduate

**GPHY 498 - Internship. 1-6 Credits.**

Offered every term. Extended classroom experience that provides practical application of classroom learning during placements off campus. Prior approval must be obtained from the faculty supervisor. A maximum of 6 credits of Internship (198, 298, 398, 498) may count toward graduation.

**GPHY 499 - Senior Thesis. 3 Credits.**

(R-6) Offered autumn and spring. Prereq., WRIT 101. Restricted to students with senior standing. Independent research project in any geographical topic supervised by a faculty member and leading to completion of the baccalaureate degree. Level: Undergraduate  
Gen Ed Attributes: Writing in the Disciplines

**GPHY 500 - Geography Graduate Colloquium. 1 Credit.**

(R-3) Presentations of faculty and student research and guest lecturers. Graded credit/no-credit only. Level: Graduate

**GPHY 504 - Research Design in the Geographical Sciences I. 1 Credit.**

Understanding of diverse research approaches in the geographical sciences and development of a thesis project. Level: Graduate

**GPHY 505 - Research Design in Geographical Sciences II. 2 Credits.**

Prereq., or corequisite GPHY 504. Preparation of a thesis proposal: research design, data collection, analysis, interpretation, and presentation. Level: Graduate

**GPHY 525 - Seminar in Paleoclimate. 3 Credits.**

Offered every other autumn. Covers the major controlling factors of climate through time, the variety of paleoclimate reconstruction methods, the range of impacts of climate on previous civilizations, and provides context for our current climate situation. Level: Graduate

**GPHY 550 - Seminar in Geography. 3 Credits.**

(R-9) Offered intermittently. Seminar topics in geography and society, human-environmental interaction, physical geography, regional geography, or geographical techniques. Level: Graduate

**GPHY 560 - Seminar in Planning. 3 Credits.**

Offered spring odd-numbered years. A critical analysis of land planning history, theory, approaches, and practice. Emphasis is on the United States and England. Level: Graduate

**GPHY 564 - Planning Design. 3 Credits.**

Analysis of land-use problems and design. Level: Graduate

**GPHY 578 - Preceptorship in Geography. 1-3 Credits.**

(R-6) Assisting a faculty member by tutoring, helping students with research projects, and carrying out other class-related activities. Level: Graduate

**GPHY 580 - Seminar GIS & Cartography. 3 Credits.**

(R-9) Offered every two years. Seminar topics in cartography and GIS. Applications to advanced studies in human and physical geography. Level: Graduate

**GPHY 587 - Image Analysis & Modeling. 3 Credits.**

Offered every two years. Prereq., GPHY 487 or FORS 351. Coreq., GPHY 589. Advanced topics in image analysis (e.g. hyperspectral images and pattern-recognition-based classification) and foundations of simple raster-based models. Level: Graduate

**GPHY 589 - Cartography/GIS Laboratory. 1 Credit.**

(R-4) Laboratory to accompany GPHY 587. Level: Graduate

**GPHY 591 - Special Topics. 1-8 Credits.**

(R-24) Offered intermittently. Experimental offerings of visiting professors, experimental offerings of new courses, or one-time offerings of current topics. Level: Graduate

**GPHY 592 - Independent Study. 1-9 Credits.**

(R-9) Course material appropriate to the needs and objectives of the individual student. Level: Graduate

**GPHY 598 - Internship. 1-9 Credits.**

(R-9) Extended classroom experience that provides practical application of classroom learning during placements off campus. Prior approval must be obtained from the faculty supervisor. Level: Graduate

**GPHY 599 - Thesis/Professional Paper. 1-10 Credits.**

(R-10) Preparation of a master's thesis or professional paper. Level: Graduate

## Geoscience (GEO)

**GEO 101N - Introduction to Physical Geology. 3 Credits.**

Offered autumn and spring. Broad introduction to physical earth systems including the work of wind, flowing water, glacial ice, gravity, earthquakes, volcanoes and plate tectonics in shaping the earth's environment.

Gen Ed Attributes: Natural Science

**GEO 102N - Introduction to Physical Geology Lab. 1 Credit.**

Offered autumn and spring. Prereq. or coreq., GEO 101N. A series of laboratory and field experiences designed around basic geologic processes and materials. Familiarization with common minerals, rocks, land forms, and structures.

Gen Ed Attributes: Natural Science Lab Course, Natural Science

**GEO 105N - Oceanography. 3 Credits.**

Offered spring. The ocean covers 70 % of the globe, and yet vast regions remain unexplored. Interactions between the atmosphere and the sea moderate and control our climate. Nearly 40 % of the world's population lives within 100 kilometers of the coast. The oceans are geographically, environmentally, culturally, and economically critical to society. This course introduces oceanography, including the origin of water and ocean basins; marine resources; atmospheric circulation; air-sea interaction; ocean-climate feedback; currents, tides, and coastal processes; marine ecology; and use and misuse of the oceans.

Gen Ed Attributes: Natural Science

**GEO 107N - Natural Disasters. 3 Credits.**

Offered intermittently. This course introduces the scientific context and latest research on natural hazards and disasters, including storms, flood, drought, mass wasting (landslides and avalanches), earthquakes and tsunamis, volcanic eruptions, and wildfires.

Gen Ed Attributes: Natural Science

**GEO 191 - Special Topics. 1-6 Credits.**

(R-6) Offered intermittently. Experimental offerings of visiting professors, experimental offerings of new courses, or one-time offerings of current topics.

**GEO 195 - Field Geosciences Methods. 1-6 Credits.**

(R-6) Field-based instruction of basic geosciences principles. Geosciences field trips around Missoula and classroom meetings to integrate field observations.

**GEO 198 - Internship. 1-6 Credits.**

(R-6) Offered every term. Extended classroom experience that provides practical application of classroom learning during placements off campus. Prior approval must be obtained from the faculty supervisor. A maximum of 6 credits of Internship may count toward graduation.

**GEO 201 - The Rocky Planet. 4 Credits.**

Offered autumn and spring. Prereq., EARTH 101N or GEO 101N or GEO 105N or GEO 107N. Presents scientific evidence and interpretations as to Earth's evolution and history as preserved in the global rock record, including the development of the oceans, atmosphere, climate and biota. Traces Earth's geologic history through time.

**GEO 202 - The Water Planet. 4 Credits.**

Offered spring. Prereq., EARTH 101N or GEO 101N or GEO 105N or GEO 107N; and GEO 102N. This course will introduce students to the study of the hydrologic cycle and associated earth-surface processes. The course will describe the mechanisms that control the movement of water and the influence of water fluxes on landscapes, ecosystems, and humans.

**GEO 224N - General Science: Physics & Geoscience. 5 Credits.**Offered autumn. Prereq., M 095 or ALEKS placement  $\geq 4$  or M02-Maplesoft Algebra score  $\geq 12$ . Integrated lectures, discussions, laboratory exercises, and demonstrations on topics in chemical and physical science for prospective elementary school teachers and the non-scientist. A two-hour laboratory session is required each week.

Gen Ed Attributes: Natural Science Lab Course, Natural Science

**GEO 291 - Special Topics. 1-6 Credits.**

(R-6) Offered intermittently. Experimental offerings of visiting professors, experimental offerings of new courses, or one-time offerings of current topics.

**GEO 294 - Seminar. 1-10 Credits.**

(R-10) Offered intermittently. Independent study of various topics under the direction of a faculty member.

**GEO 302 - Mineralogy and Optical Mineralogy. 4 Credits.**

Offered autumn. Prereq., GEO 201 and either CHMY 121N or CHMY 141N. Identification, properties, occurrence, and associations of the rock-forming minerals; introduction to crystallography (crystal classes, lattice types, and external morphology) and crystal chemistry (bonding and crystal structure types); analytical techniques including mineral optics, x-ray, and SEM analysis. \$50.00 field trip and lab fee.

**GEO 305 - Igneous & Metamorph Petrology. 4 Credits.**

Offered spring. Prereq., GEO 302. Characteristics, phase relations, and origin of igneous and metamorphic rocks. Classification and interpretation of igneous and metamorphic rocks in hand specimen and thin section. Plate tectonic settings of magmatism and metamorphism.

**GEO 309 - Sedimentation/Stratigraphy. 4 Credits.**

Offered spring. Prereq., GEO 201 and 302. Origins of sediments and sedimentary rocks; climate, weathering, and weathering products; transport, deposition, and depositional environments of sediments; concepts and methods of stratigraphy including correlation of sedimentary rocks and an introduction to basin analysis.



**GEO 316 - Getting Started in Research. 2 Credits.**

This course introduces students to the process of research and creative inquiry, including how to formulate a research question, how to navigate academic literature, how to develop a research plan, how to connect with faculty mentors, and how to discover opportunities for internships and graduate school. The course prepares students to participate and thrive in undergraduate research experiences, such as a senior thesis, capstone project, or internship. Students may be new to research or already involved in research.

**GEO 318 - Earth's Changing Climate. 3 Credits.**

Offered autumn and/or summer. Restricted to students with at least junior standing. The future of our climate from the perspective of climate system dynamics. The course has three five-week modules. The first covers the processes and time scales governing Earth's heat balance, the basic rules of changing climate. The second module explores climate variability stemming from internal dynamics of the climate system. The final module examines the grand challenge in climate science: constraining projections of future change with regards to feedbacks and uncertainties in climate system processes. Emerging research is highlighted throughout the course on unsettled scientific problems in climate science and the approaches taken by scientists to solve them.

**GEO 319 - Surface Processes. 3 Credits.**

Offered spring. Prereq., GEO 101N/GEO 102N or EARTH 101N/ERTH 103N; and M 122 or M 151. Study of the earth's surface and near surface using the laws and principles of physics. Mechanisms underlying the processes that shape the earth's surface and drive its evolution, including climate, hydrology, geomorphology, and geochemistry.

**GEO 321 - Earth Resources and Sustainability. 3 Credits.**

Prereq., EARTH 101N, GEO 101N, or GEO 107N. This course explores the nature and critical issues of major types of Earth resources - energy, metallic, non-metallic, water, soil - and the impacts that resource usage has on the Earth environment from both geologic and societal perspectives. Content will include timescales and geological processes of formation and distribution of resource materials and the scope for environmental and climatic change at the Earth's surface. The course will bring together the science of Earth resources with the broader human context of resource exploitation.

**GEO 322 - Energy and the Environment. 3 Credits.**

This course examines all forms of energy used by humans historically and today including renewable and conventional forms. Each energy form will be examined in terms of the technology behind it, sustainability pros/cons particularly as regards the environment, and the potential role of each for stabilizing atmospheric carbon dioxide levels.

**GEO 323 - Computational Methods for Earth and Environmental Scientists. 3 Credits.**

Prereq., M 121. In this course, students obtain a panoramic and practical understanding of computational methods commonly used in the field of Earth and Environmental Sciences and learn how to use the Python programming language to apply these methods for environmental data analysis. The course covers topics in statistical inference, hypotheses testing, solution of linear and nonlinear system and solution of ordinary differential equations.

**GEO 390 - Research. 1-6 Credits.**

Offered intermittently. Directed individual research and study appropriate to the background and objectives of the student. Level: Undergraduate

**GEO 391 - Special Topics. 1-9 Credits.**

(R-9) Offered intermittently. Experimental offerings of visiting professors, experimental offerings of new courses, or one-time offerings of current topics.

**GEO 392 - Independent Study. 1-6 Credits.**

(R-6) Course material appropriate to the needs and objectives of the individual student.

**GEO 394 - Seminar/Workshop. 1-9 Credits.**

(R-9) Offered intermittently. A review and discussion of current research. Topics vary.

**GEO 398 - Internship. 1-6 Credits.**

(R-6) Offered every term. Extended classroom experience that provides practical application of classroom learning during placements off campus. Prior approval must be obtained from the faculty supervisor. No more than 3 credits of GEO 398 may be applied to the geosciences minor. A maximum of 6 credits of Internship may count toward graduation.

**GEO 409 - Careers in Geosciences. 1 Credit.**

Geoscience graduates have a rich portfolio of career options. This course explores the spectrum of career available to Geoscience students and the tools to ensure a successful career. Invited speakers, mostly alumni of the Geosciences program at UM, describe their career, the skills required by their profession, and provide advice on how to maximize education for success in their field. Speakers are chosen to represent the broad spectrum of career paths and employer opportunities in the Geosciences. Level: Undergraduate-Graduate

**GEO 420 - Hydrogeology. 4 Credits.**

Offered spring. Prereq., GEO 101N/GEO 102N or EARTH 101N/ERTH 103N; and PHSX 205N/PHSX 206N or PHSX 215N/PHSX 216N; and M 171. Occurrence, movement, quality, and methods of quantification of groundwater. Geological framework and physics of groundwater flow. Supply, contamination, and management problems. Level: Undergraduate-Graduate

**GEO 421 - Hydrology. 3 Credits.**

Offered autumn. Introduction to the physical mechanisms that drive the water cycle at different scales. The course covers heat, momentum and mass transfer and storage mechanisms in turbulent systems and their role in the global and local climates. At the local scale, the equations that govern surface and subsurface water flows are studied. Along with the overarching goals, students will improve their quantitative skills, will gain experience accessing and reading the professional literature and will improve their capabilities to acquire knowledge independently. Level: Undergraduate-Graduate

**GEO 428 - Field Methods: Earth, Water, and Climate Science. 3 Credits.**

In this class students will develop basic knowledge required to perform field work in remote locations across a broad range of disciplines in the earth, water, and climate sciences. Students will be introduced to a wide variety of field skills from backcountry navigation to understanding instrumentation and measurement principles, sources of uncertainty error, and data reduction. Students will make a variety of different measurements and learn to interpret their collected data. Level: Undergraduate

**GEO 439 - Geophysics. 3 Credits.**

Prereq., GEO 101N/GEO 102N or EARTH 101N/ERTH 103N; and PHSX 207N or PHSX 217N; and M 171. This course will explore a variety of fundamental topics in geophysics, including Earth formation, Earth structure, plate tectonics, gravity, seismology, heat flow and magnetism. The course will also cover modern geophysical surveying methods, including reflection seismology, refraction seismology, gravity surveying, and magnetic surveying. Level: Undergraduate-Graduate



**GEO 443 - Principles of Sedimentary Petrology . 4 Credits.**

Offered autumn. Prereq., GEO 302. Field, hand specimen and thin section petrology of siliciclastic and carbonate rocks, emphasis on tectonic and diagenetic interpretation of siliciclastic rock and environments of deposition and diagenesis of carbonate rocks. Level: Undergraduate-Graduate

**GEO 460 - Process Geomorphology. 3 Credits.**

Prereq., GEO 202 or NRSM 210N; and M 121 or M 122 or M 151. Quantitative examination of landforms, runoff generation, weathering, mechanics of soil erosion by water and wind, mass wasting, glacial processes and hillslope evolution. Level: Undergraduate-Graduate.

**GEO 488 - Snow, Ice and Climate Change. 3 Credits.**

Offered autumn. Restricted to students with at least junior standing. Frozen water (i.e., glaciers, ice sheets, seasonal snow, and sea ice) is a primary component of Earth's climate system that both drives and responds to climate change. This course examines the role of snow and ice in four pressing issues of climate change: 1) global sea level rise and stability of ice sheets; 2) Arctic amplification of climate change and sea ice processes; 3) climate system feedbacks revealed by ice cores; and, 4) water supply and mountain snowpack dynamics. Level: Undergraduate-Graduate

**GEO 491 - Special Topics. 1-8 Credits.**

(R-8) Offered intermittently. Experimental offerings of visiting professors, experimental offerings of new courses or one-time offerings of current topics. Level: Undergraduate-Graduate

**GEO 492 - Independent Study. 1-6 Credits.**

(R-6) Course material appropriate to the needs and objectives of the individual student. Level: Undergraduate-Graduate

**GEO 494 - Senior Geology Seminar. 1-10 Credits.**

(R-10) Offered intermittently. Restricted to majors in Geosciences with at least junior standing. A review and discussion of current research. Topics vary. Level: Undergraduate-Graduate

**GEO 498 - Internship. 1-6 Credits.**

(R-6) Offered every term. Extended classroom experience that provides practical application of classroom learning during placements off campus. Prior approval must be obtained from the faculty supervisor. A maximum of 6 credits of Internship (198, 298, 398, 498) may count toward graduation. Level: Undergraduate-Graduate

**GEO 499 - Senior Thesis/Capstone. 3-10 Credits.**

(R-10) Offered every term. Prereq., WRIT 101. Independent research project in any geosciences topic supervised by faculty member, and leading to completion of baccalaureate degree. Level: Undergraduate Gen Ed Attributes: Writing in the Disciplines

**GEO 508 - Fundamentals of Academic Research. 3 Credits.**

Offered autumn. An introduction to scientific research including strategies for designing projects, research methods, scientific tools, proposals and publishing, and the culture and trends within the field of geosciences. Intended for first semester graduate students in geosciences. Level: Graduate.

**GEO 518 - Research Workshop. 2 Credits.**

This course includes group discussion, analysis, and troubleshooting of research challenges. Analogous to writers' and artists' workshops where constructive critiques are used to refine and advance creative material, this workshop will assist students in addressing research challenges through group collaboration and guided discussion of relevant methods and approaches. Level: Graduate

**GEO 528 - Sedimentary Basin Analysis. 4 Credits.**

Offered intermittently. Influence of allocyclic processes (tectonism, climate, eustasy, etc.) in shaping the evolution of sedimentary basins.

Emphasis on integration and synthesis of tools of sedimentary basins analysis, including the study of depositional systems, provenance, paleocurrents, subsidence, sequence stratigraphy, and well logs. Level: Graduate

**GEO 540 - The Food-Energy-Water Nexus. 3 Credits.**

Offered autumn. Interdisciplinary course examining interactions between food, energy, and water systems and core concepts and tools at the food-energy-water nexus. Perspectives and connections across scales, sectors, and disciplines (including social and biophysical sciences and engineering) are emphasized. Level: Graduate

**GEO 546 - Seismology and Geodesy. 3 Credits.**

Offered Spring. We will explore modern topics in geophysics, with a focus on seismology and geodesy. Advanced topics may vary with each offering, but will generally include selections from continuum mechanics, inverse theory, seismic wave propagation, earthquake location, tidal analysis and prediction, GNSS theory and analysis, spheroidal Earth deformation, and surface mass loading. Students will have the opportunity to engage directly with real seismic and geodetic datasets using computational tools, as well as to investigate problems of personal interest through individual research projects. Level: Graduate

**GEO 548 - Topics in Cryosphere. 3 Credits.**

(R-12) Readings, discussions, lectures, and field experiments on various topics related to snow, ice, and climate processes. Recent topics: meltwater infiltration in snow, glacier hydrology, climate cycles, ice, and sea level rise. Level: Graduate

**GEO 560 - Fluvial Geomorphology. 3 Credits.**

Offered spring. Application of fluid mechanics to sediment transport and development of river morphology. Form and process in river meanders, the pool-riffle sequence, aggradation, grade, and baselevel. Level: Graduate

**GEO 568 - Climate Sensitivity and Feedbacks. 3 Credits.**

Offered spring. Earth's climate system response to global radiation imbalances caused by natural and anthropogenic forcings. Fundamentals of climate dynamics including earth's energy balance and the global circulation of heat; the numerous amplifying and dampening feedbacks governing fast and slow climate system response to forcing; and, the various estimates of earth's transient response and equilibrium sensitivity to increased atmospheric carbon dioxide concentration. Lectures, readings, discussions, small problem sets and projects. Level: Graduate

**GEO 572 - Advanced Hydrogeology. 3 Credits.**

Offered autumn. Advanced concepts used in groundwater investigations, including flow systems analysis, hydrogeologic monitoring and sampling, resource evaluation, exploration, development and monitoring, and contaminant transport. Special problem areas in groundwater exploration and management. Level: Graduate

**GEO 582 - Topics in Structure & Geophysics. 1-12 Credits.**

(R-12) Offerings on request of graduate students by arrangement with appropriate faculty. Recent topics: structural analysis, Precambrian crustal evolution, field trips on Rocky Mountain structure. Level: Graduate

**GEO 585 - Topics in Hydro Low-Temp Geochemistry. 1-12 Credits.**

(R-12) Offerings on request of graduate students by arrangement with appropriate faculty. Recent topics: field methods, well design, contaminant transport, geochemical modeling. Level: Graduate

**GEO 590 - Research. 1-12 Credits.**

(R-12) Offered intermittently. Directed individual research and study appropriate to the background and objectives of the student. Level: Graduate

**GEO 591 - Special Topics. 1-8 Credits.**

(R-24) Offered intermittently. Experimental offerings of visiting professors, experimental offerings of new courses, or one-time offerings of current topics. Level: Graduate

**GEO 592 - Independent Study. 1-6 Credits.**

(R-6) Offered every term. Course material appropriate to the needs and objectives of the individual student. Level: Graduate

**GEO 594 - Graduate Seminar. 1-10 Credits.**

(R-10) Offered intermittently. Seminar study of various topics under the direction of a faculty member. Level: Graduate

**GEO 598 - Internship. 1-12 Credits.**

(R-12) Extended classroom experience that provides practical application of classroom learning during placements off campus. Level: Graduate

**GEO 599 - Thesis. 1-12 Credits.**

(R-15) Offered every term. Requires thesis proposal approval. Directed research to serve as thesis for the master degree. Credit assigned upon submittal of final copy of approved and bound thesis. Level: Graduate

**GEO 699 - Dissertation. 1-12 Credits.**

(R-25) Offered every term. Requires dissertation proposal approval. Directed research to serve as dissertation for the Ph.D. degree. Credit assigned upon submittal of final copy of approved and bound dissertation. Level: Graduate

## German (GRMN)

**GRMN 101 - Elementary German I. 4 Credits.**

Offered autumn. Emphasis on oral communication, with development in all major skill areas: listening, speaking, reading, and writing.

**GRMN 102 - Elementary German II. 4 Credits.**

Offered spring. Prereq., GRMN 101. Emphasis on oral communication, with continuing development in all major skill areas: listening, speaking, reading, and writing.

Gen Ed Attributes: Language Requirement

**GRMN 106H - Introduction to German Culture and Civilization. 3 Credits.**

This course provides an introductory overview of major developments, ideas, and influences involving German-speaking culture from its documented origins in the Roman era to today in English. Students will become familiar with the chronology and significance of key historical events in Central Europe as well as with major figures in such areas as politics, literature, art, and philosophy. Attention will also be given to important contributions that German-speaking culture has made globally. Gen Ed Attributes: Historical Studies

**GRMN 191 - Special Topics. 1-9 Credits.**

(R-9) Offered intermittently. Experimental offerings of visiting professors, experimental offerings of new courses, or one-time offerings of current topics.

**GRMN 198 - Internship. 1-6 Credits.**

(R-6) Extended classroom experience that provides practical application of classroom learning during placements off campus. Prior approval must be obtained from the faculty supervisor. A maximum of 6 credits of Internship (198, 298, 398, 498) may count toward graduation.

**GRMN 201 - Intermediate German I. 4 Credits.**

Offered autumn. Prereq., GRMN 102. Continuation of active skills approach to German listening, speaking, reading, and writing. Gen Ed Attributes: Language Requirement

**GRMN 202 - Intermediate German II. 4 Credits.**

Offered spring. Prereq., GRMN 201. Continuation of 201. Gen Ed Attributes: Language Requirement

**GRMN 291 - Special Topics. 1-9 Credits.**

(R-9) Offered intermittently. Experimental offerings of visiting professors, experimental offerings of new courses, or one-time offerings of current topics.

**GRMN 292 - Independent Study. 1-6 Credits.**

(R-6) Offered autumn and spring. Course material appropriate to the needs and objectives of the individual student.

**GRMN 298 - Internship. 1-6 Credits.**

(R-6) Extended classroom experience that provides practical application of classroom learning during placements off campus. Prior approval must be obtained from the faculty supervisor. A maximum of 6 credits of Internship (198, 298, 398, 498) may count toward graduation.

**GRMN 301 - Studies in German Language, Media, and Culture I. 3 Credits.**

Offered autumn. Prereq., GRMN 202. Native or near-native speakers of German may not apply credit for this course toward a German major or minor. The course emphasizes advanced development of the four linguistic skills: listening comprehension, reading, writing, speaking. Interactive approaches toward texts and media foster active participation for conversation. Focus is on development of communication skills, linguistic accuracy, and cross-cultural competence. Gen Ed Attributes: Language Requirement

**GRMN 302 - Studies in German Language, Media, and Culture II. 3 Credits.**

Offered spring. Prereq., GRMN 301. Native or near-native speakers of German may not apply credit for this course toward a German major or minor. This course builds on GRMN 301 and further advances development of the four linguistic skills: listening comprehension, reading, writing, speaking. Use of different types of texts and media extending from GRMN 301 aims toward enhancing cross-cultural competency and proficiency for communication in spoken and written German.

Gen Ed Attributes: Language Requirement

**GRMN 311 - Introduction to German Literature. 3 Credits.**

Offered autumn. Prereq., GRMN 202. Reading and discussion of selected works of German literature. Instruction in the fundamentals of textual analysis and terminology and discussion of works in historical context. Taught primarily in German.

**GRMN 313 - German Narratives in Literature and Film. 3 Credits.**

Prereq., GRMN 202. In this course we will explore German narratives in literature and film and examine the relationship between literary and cinematic forms in the German-language tradition. We will discuss different aspects of genre and style in German literature and film and how the topics we cover represent developments in Central European literature and culture from the early 19th century to the present. We will also focus on terms and aspects connected to both German literature and cinema. The course will be taught primarily in German.

**GRMN 317L - Introduction to Multicultural Literature in Contemporary Germany. 3 Credits.**

Offered intermittently. Introduction to multicultural literature created during recent decades in Germany. Study topics include immigration, citizenship, multilingualism, identity; significant literary and cultural movements and selected writers in contemporary Germany.

Gen Ed Attributes: Literary & Artistic Studies

**GRMN 322L - Survey of German Cinema. 3 Credits.**

Offered intermittently. The development of the German film from its beginnings in the late 19th century to the present. Topics include Expressionism, New Objectivity, the Nazi film, the German contribution to Hollywood, the post-war film in East and West Germany, and film in unified Germany.

Gen Ed Attributes: Literary & Artistic Studies

**GRMN 340L - Nature and the Environment in German Literature and Film. 3 Credits.**

An examination of the historical role of nature and the environment in the German literary and cinematic traditions. Course begins with the Roman Germanic periods and covers literary and cinematic works in cultural and historical context up until the present day. Attention given to the role of environmentalism in Central European culture today in light of themes of nature and the environment in German literature and film historically.

Gen Ed Attributes: Literary & Artistic Studies

**GRMN 350 - German Culture & Civilization. 3 Credits.**

Offered spring. Offered as part of the Study Abroad program in Germany and Austria. Introduction to cultural topics, current events, and historical topics of Germany and Austria. Course content supplemented with on-site visits.

**GRMN 351H - German Culture: Beginnings to Romanticism. 3 Credits.**

Offered intermittently in spring. Prereq., WRIT 101 or WRIT 201. Overview of major events and currents in German culture to 1900 with emphasis on the arts, literature, and intellectual movements. Lectures in English.

Gen Ed Attributes: Historical Studies, Writing in the Disciplines

**GRMN 352H - Germ Culture: Romanticism to the Present. 3 Credits.**

Offered intermittently in spring. Prereq., WRIT 101 or WRIT 201. Overview of major events and trends in culture of German-speaking world from 1800 to the present with emphasis on the arts, literature, film, intellectual movements, and social and political developments. Lectures in English.

Gen Ed Attributes: Historical Studies, Writing in the Disciplines

**GRMN 391 - Special Topics. 1-9 Credits.**

(R-9) Offered intermittently. Experimental offerings of visiting professors, experimental offerings of new courses, or one-time offerings of current topics.

**GRMN 392 - Independent Study. 1-12 Credits.**

(R-12) Offered intermittently. Course material appropriate to the needs and objectives of the individual student.

**GRMN 398 - Internship. 1-6 Credits.**

(R-6) Offered intermittently. Extended classroom experience that provides practical application of classroom learning during placements off campus. Prior approval must be obtained from the faculty supervisor. A maximum of 6 credits of Internship (198, 298, 398, 498) may count toward graduation.

**GRMN 431 - German Literature 1760-1832. 3 Credits.**

Offered autumn. Readings, study, and discussion of writers, texts, and contexts in German literature from 1760 to 1832, including Enlightenment, Storm and Stress, Romanticism, and Classicism. Level: Undergraduate-Graduate

**GRMN 441 - 19th Century German Literature. 3 Credits.**

Offered autumn. Readings, study, and discussion of writers, texts, and contexts in German literature from 1832 to 1900. Level: Undergraduate-Graduate

**GRMN 451 - 20th and 21st Century German Literature. 3 Credits.**

Offered spring. Prereq., GRMN 311. Readings, study, and discussion of writers, text, and contexts in German literature from 1900 to present.

Level: Undergraduate-Graduate

**GRMN 491 - Special Topics. 1-9 Credits.**

(R-9) Offered intermittently. Experimental offerings of visiting professors, experimental offerings of new courses, or one-time offerings of current topics. Level: Undergraduate-Graduate

**GRMN 492 - Independent Study. 1-6 Credits.**

(R-6) Offered autumn and spring. Course material appropriate to the needs and objectives of the individual student. Level: Undergraduate

**GRMN 494 - Seminar in German Studies. 1-12 Credits.**

(R-12) A review and discussion of current research. Topics vary. Level: Undergraduate-Graduate

**GRMN 591 - Special Topics. 1-6 Credits.**

(R-24) Offered intermittently. Experimental offerings of visiting professors, experimental offerings of new courses, or one-time offerings of current topics. Level: Graduate

**GRMN 594 - Graduate Seminar. 3 Credits.**

(R-6) A review and discussion of current research. Topics vary. Level: Graduate

**GRMN 599 - Thesis/Professional Paper. 1-6 Credits.**

(R-6) Preparation of a thesis or professional paper appropriate to the needs and objectives of the individual student. Level: Graduate

## Global Humanities (GH)

**GH 151L - Introduction to Western Humanities: Antiquity. 3 Credits.**

Prereq., WRIT 101 or WRIT 201. Western Civilization in Antiquity - Greek, Roman, Jewish and early Christian literatures.

Gen Ed Attributes: Literary & Artistic Studies, Writing Across the Curriculum

**GH 152 - Introduction to the Humanities Medieval to Modern. 3 Credits.**

Prereq., WRIT 101 or WRIT 201. Western Civilization in Modernity – early modern (Renaissance) to twentieth century.

Gen Ed Attributes: Writing Across the Curriculum

## Global Leadership (GBLD)

**GBLD 110 - Global Challenges & Leadership. 1 Credit.**

Restricted to students in the Global Leadership Certificate program. Introduction to key global challenges, identifying issues inherent in the challenges, and working with others to research and tackle the challenges.

**GBLD 194 - Seminar. 3 Credits.**

Offered autumn. Restricted to students in the Global Leadership Certificate program. Small seminar-style courses focused on multidisciplinary approaches to new and enduring global challenges that include intercultural or international perspectives taught by UM faculty around campus.

**GBLD 220 - Models of Leadership. 2 Credits.**

Restricted to students in the Global Leadership Certificate program. Exploration of leadership models, how culture influences the effectiveness of those models, and how one's leadership style can best be identified, developed, and put into action.

**GBLD 291 - Special Topics. 1-6 Credits.**

(R-6) Experimental offerings of visiting professors, experimental offerings of new courses, or one time offerings of current topics.

**GBLD 294 - Seminar. 1-6 Credits.**

(R-6) Presentations by students, faculty, and professionals on issues and topics in their field.

**GBLD 392 - Independent Study. 1-9 Credits.**

(R-18) Course material appropriate to the needs and objectives of the individual student.

**GBLD 398 - Internship. 1-6 Credits.**

(R-6) Extended classroom experience that provides practical application of classroom learning during placements off campus. Prior approval must be obtained from the faculty supervisor. A maximum of 6 credits of Internship (198, 298, 398, 498) may count toward graduation.

**GBLD 499 - GLI Capstone. 1-2 Credits.**

(R-3) Restricted to students with senior standing. Culminating project addressing a global question, to include a written proposal (completed and presented in semester 1) and execution of a project (completed and presented in semester 2). Level: Undergraduate

## Global Youth Development (GYD)

**GYD 510 - Intercultural Skills. 3 Credits.**

Focus on applied skills in two areas: cross-cultural negotiation and conflict management; program development and grant writing. Level: Graduate

**GYD 599 - Professional Projects. 1-2 Credits.**

(R-2) Final Master's project related to internship; may be presented as a grant proposal, policy analysis, or portfolio. Level: Graduate

**GYD 698 - Intercultural Internship. 1-4 Credits.**

(R-4) Supervised intercultural experience through Peace Corps, VISTA, or other organization approved by program faculty. Level: Graduate

## Graduate Study - Interdisciplinary (GS)

**GS 591 - Special Topics. 1-6 Credits.**

(R-12) Offered intermittently. Experimental offerings of visiting professors, experimental offerings of new courses, or one-time offerings of current topics. Level: Graduate

**GS 592 - Independent Study. 1-8 Credits.**

(R-8) Offered every term. Course material appropriate to the needs and objectives of the individual student. Level: Graduate

**GS 594 - Graduate Seminar. 1-6 Credits.**

(R-6) Offered intermittently. A review and discussion of current research. Topics vary. Level: Graduate

**GS 599 - Thesis/Professional Paper/Exam. 1-18 Credits.**

(R-18) Preparation of a thesis, professional paper, or comprehensive exam. Level: Graduate

**GS 690 - Advanced Research. 1-9 Credits.**

(R-9) Offered every term. Directed individual research and study appropriate to the background and objectives of the student. Level: Graduate

**GS 692 - Independent Study. 1-8 Credits.**

(R-8) Offered every term. Course material appropriate to the needs and objectives of the individual student. Level: Graduate

**GS 693 - International Experience. 1-6 Credits.**

(R-6) offered intermittently. Field-based, experiential courses that focus on international culture. Level: Graduate

**GS 699 - Dissertation. 1-18 Credits.**

(R-18) Offered every term. Doctoral dissertation research activities. Level: Graduate

## Graphic Design (GDSN)

**GDSN 149A - Digital Imaging I. 3 Credits.**

Offered autumn and spring. Introduction to the fundamentals of digital imaging and composition principles, primarily using Adobe Photoshop. Emphasis on formal 2D design components, typography, and digital compositing. Consideration of historical and contemporary approaches. Gen Ed Attributes: Expressive Arts

**GDSN 231 - Graphic Design Applications. 3 Credits.**

Offered spring. Prereq., GDSN 149A or MART 255 or MART 256. This course teaches students to plan and execute visual communication according to the needs of audiences in specific contexts. A thorough examination of the principles of design, theories of communication, and strategies for problem solving will be presented.

**GDSN 391 - Special Topics. 1-6 Credits.**

(R-6) Offered intermittently. Experimental offerings of visiting professors, experimental offerings of new courses, or one-time offerings of current topics.

## Greek (GRK)

**GRK 101 - Elementary Greek I. 3 Credits.**

Offered autumn. Introduction to Classical Greek is the first courses of a two-semester sequence, designed to enable the student to read Greek authors in the original Greek as soon as possible. Based upon selected texts from Tragedians, Plato, Xenophon, Menander, New Testament, and other major authors.

**GRK 102 - Elementary Greek II. 3 Credits.**

Offered spring. Prereq., GRK 101. Continuation of GRK 101. Greek grammar, vocabulary, readings of ancient Greek writings with the aid of a lexicon.

Gen Ed Attributes: Language Requirement

**GRK 191 - Special Topics. 1-6 Credits.**

(R-6) Experimental offerings of visiting professors, experimental offerings of new courses, or one-time offerings of current topics.

**GRK 201 - Intermediate Greek I. 3 Credits.**

Offered autumn. Prereq., GRK 102. Attic prose and poetry, Plato, Thucydides, Euripides.

Gen Ed Attributes: Language Requirement

**GRK 202 - Intermediate Greek II. 3 Credits.**

Offered spring. Prereq., GRK 201. Readings from Homer's Iliad and/or Odyssey.

Gen Ed Attributes: Language Requirement



**GRK 292 - Independent Study. 1-6 Credits.**

(R-6) Offered autumn and spring. Course material appropriate to the needs and objectives of the individual student.

**GRK 391 - Special Topics. 1-9 Credits.**

(R-9) Offered intermittently. Experimental offerings of visiting professors, experimental offerings of new courses, or one-time offerings of current topics.

**GRK 392 - Independent Study. 1-9 Credits.**

(R-9) Offered intermittently. Course material appropriate to the needs and objectives of the individual student.

**GRK 492 - Independent Study. 1-9 Credits.**

(R-9) Offered intermittently. Course material appropriate to the needs and objectives of the individual student. Level: Undergraduate-Graduate

## Health (HTH)

**HTH 110 - Personal Health and Wellness. 3 Credits.**

Focus on health principles and their relevance in contemporary society, the evaluation and application of scientific advances to hypothetical lifestyles, and on contemporary problems in life.

**HTH 292 - Independent Study. 1-6 Credits.**

(R-6) Course material appropriate to the needs and objectives of the individual student.

**HTH 370 - Peer Health Education. 1 Credit.**

Offered fall and spring. Introduction to peer health education strategies and techniques. Students gain the knowledge and skills necessary to develop and implement health promotion programs focused on prevention of major health problems among college students.

**HTH 395 - Peer Health Practicum. 1-3 Credits.**

(R-6) Prereq. or coreq., HTH 370. Practical experience in planning, coordinating, and implementing health education activities for the campus community. Students address topics related to wellness, drug and alcohol prevention, or sexual assault awareness.

**HTH 430 - Health and Mind/Body/Spirit. 3 Credits.**

Restricted to students with at least junior standing. Overview of how the mind/body/spirit relationship affects health. Examination of current research exploring how thoughts, emotions, attitudes, and beliefs influence and mediate health outcome. Exploration of the theoretical applications of mind/body/spirit in health and healing used in contemporary society. Level: Undergraduate-Graduate

**HTH 465 - Leading Integrative Physiology and Athletic Training Organizations. 3 Credits.**

Prereq., KIN 205. Restricted to students with at least junior standing. Leadership, management, organizational structure assertiveness, conflict management, public relations, decision-making, budget management, and a broad overview of human resource management, all as they relate to health and human performance settings. Level: Undergraduate-Graduate

**HTH 475E - Legal and Ethical Issues Health and Exercise Professions. 3 Credits.**

Restricted to students with at least junior standing. Legal bases for litigation in the health and exercise professions, with emphasis on negligence, liability, and risk identification and risk management. Utilizing the Western ethical traditions, the ethics component examines moral/ethical development through the lifespan via analysis of specific human behaviors. Level: Undergraduate-Graduate  
Gen Ed Attributes: Ethical & Human Values

**HTH 481 - Teaching HHP. 1-3 Credits.**

(R-4) Students assist in the preparation and grading of demonstrations and laboratory assignments, and laboratory instruction of undergraduate students enrolled in HHP laboratory courses. Students are given advanced instruction in principles of the HHP course. Level: Undergraduate

**HTH 492 - Independent Study. 1-3 Credits.**

(R-6) Course material appropriate to the needs and objectives of the individual student. Level: Undergraduate

**HTH 494 - Seminar. 1 Credit.**

(R-2) Co-req., HTH 395 and CHTH 498. Health Behavior Coach practicum and internship students enrolled in this seminar will have the opportunity to critically analyze their coach/client interactions and to receive feedback from faculty and peers regarding their coaching skills. Students' coaching skills will be enhanced and strengthened through assigned readings and skill building activities. CR/NCR. Level: Undergraduate

**HTH 498 - Internship. 2-6 Credits.**

(R-6) Restricted to students with at least junior standing. Extended classroom experience that provides practical application of classroom learning during placements off campus. Prior approval must be obtained from the faculty supervisor. A maximum of 6 credits of Internship (198, 298, 398, 498) may count toward graduation. Level: Undergraduate

## Health and Human Performance (HHP)

**HHP 520 - Research Methods. 3 Credits.**

Offered every term. An introduction to research design and methodologies in integrative physiology, athletic training, and related fields. The course is designed to explore the consumption of research literature, study design, methodology, and the associated data analyses and interpretation as related to hypothesis-driven research. Students will learn the foundational approaches to modern research in order to become better consumers of research in the field, and enable their own exploration in research design. Level: Graduate

**HHP 523 - Case Studies in Performance Psychology. 3 Credits.**

Offered intermittently. Restricted to students in the Master of Athletic Training (MAT) program. Through the usage of both real and hypothetical case studies, the course will examine the field of sport/performance psychology and its role in the broader field of sports medicine. Level: Graduate

**HHP 524 - Ethics & Human Performance. 3 Credits.**

A critical examination of the ethical issues dominating the field of health and human performance and beyond with special emphasis on developing the conceptual frameworks needed to articulate our concerns and engage in meaningful dialogue with others. Level: Graduate

**HHP 525 - Advanced Biomechanics. 3 Credits.**

This course is focused on developing laboratory skills and an advanced understanding of the quantitative and qualitative basis for human motion. Particular emphasis will be placed on the Newtonian mechanics governing biological motion and the roles of the musculo-skeletal, nervous and cardio-vascular systems during human activity. This integrative approach will be used to quantify and understand motion by, and within, the human body; examples will be drawn from the sub-disciplines of clinical gait analysis, gerontology, sports medicine, biological engineering and performance physiology. The lecture portion of this course is co-convened with KIN 425 Biomechanics. Level: Graduate



**HHP 526 - Higher Education Pedagogy in Integrative Sciences. 3 Credits.**

This course discusses the science behind student learning, scientific teaching, assessments and rubrics, active learning, project based learning, teaching technology, inclusive teaching and universal design, classroom and course management, and course design. Level: Graduate

**HHP 528 - Advanced Exercise Prescription. 3 Credits.**

Offered spring even years. This course presents the principles and practices of advanced athletic performance training in a thorough and useful sequence. Testing and improving power, strength, speed, quickness, coordination, agility, flexibility, local muscular endurance, and cardiovascular aerobic capacity and endurance are covered based on the scientific record. Students will learn how to tailor sport specific training exercises and drills and periodize the training program precisely for peak performance at critical points in the competitive season. Level: Graduate

**HHP 529 - Advanced Exercise Physiology I. 3 Credits.**

Offered autumn. Prereq., KIN 320 or KIN 321. Advanced study of the effect of work, activity and exercise on human biochemistry, metabolism, endocrinology and muscle function. Level: Graduate

**HHP 530 - Advanced Exercise Physiology II. 3 Credits.**

Offered spring odd years. Prereq., HHP 529. Advanced study of system physiology (circulatory, respiratory and renal function) and environmental factors applied to physical work, activity and exercise Level: Graduate

**HHP 531 - Lab Procedures In Exercise Science. 3 Credits.**

Offered autumn. Introduction to common laboratory tools associated with clinical and health assessment techniques, research measures, and data collection. Level: Graduate

**HHP 560 - Advanced Electrocardiogram Assessment. 2 Credits.**

Students should have completed an undergraduate course in exercise physiology. Evaluation in the form of a traditional letter grade will be based on performance on exams, on-line quizzes, a lab practical, lab practical mentoring, a topical paper and presentation. Level: Graduate

**HHP 581 - Teaching Health & Human Performance. 1-4 Credits.**

(R-9) Offered fall and spring. Students assist with the preparation of lecture demonstrations, the grading of laboratory assignments, and the delivery of content, analysis, and safety protocols for the undergraduate laboratory sections to which they are assigned. The weekly meetings with the instructor of record provide students with advanced instruction in the relevant physiology and ensure agreement of objectives across all sections of the specific undergraduate course. Level: Graduate

**HHP 583 - Advanced Exercise, Disease, and Aging. 3 Credits.**

Prereq., KIN 460 or HHP 560. Students should have completed an undergraduate course in exercise physiology. Course performance will include the assignment of traditional letter grades based upon exams, on line quizzes, a topical paper and presentation, and mentoring of undergraduate peer-teaching. Level: Graduate

**HHP 584 - Laboratory for Advanced Exercise, Disease, and Aging. 1 Credit.**

Prereq., KIN 460 or HHP 560. Students should have completed an undergraduate course in exercise physiology. This course is designed for IPAT masters students and doctoral students in the proposed Integrative Physiology and Rehabilitation Sciences programs. Students will be evaluated using a traditional letter grade as assessed using lab practical assignments, an exam, and performance on team leading human subjects exercise testing risk assessments, exercise testing and interpretation, client counseling for exercise prescriptions and cardiovascular and metabolic disease risk modification using a 'lifestyle medicine' approach. Level: Graduate

**HHP 590 - Research. 1-6 Credits.**

(R-6) Offered every term. Directed individual research and study appropriate to the background and objectives of the student. Level: Graduate

**HHP 592 - Independent Study. 1-6 Credits.**

(R-6) Offered every term. Course material appropriate to the needs and objectives of the individual student. Level: Graduate

**HHP 594 - Seminar. 1-3 Credits.**

(R-6) Offered spring. A review and discussion of current research. Topics vary. Level: Graduate

**HHP 598 - Internship. 1-6 Credits.**

(R-6) Offered every term. Students must have current First Aid and CPR certification. Extended classroom experience that provides practical application of classroom learning during placements off campus. Prior approval must be obtained from the faculty supervisor. Level: Graduate

**HHP 599 - Professional Paper. 1-3 Credits.**

(R-3) Offered every term. Prereq., HHP 520. Preparation of a professional paper appropriate to the needs and objectives of the individual student. Level: Graduate

**HHP 690 - Research. 1-6 Credits.**

(R-6) Offered every term. Directed individual research and study appropriate to the background and objectives of the student. Level: Graduate

**HHP 691 - Special Topics. 1-9 Credits.**

(R-24) Experimental offerings of visiting professors, experimental offerings of new courses, or one-time offerings of current topics. Level: Graduate

**HHP 699 - Thesis/Dissertation. 1-18 Credits.**

(R-18) Option for the proposed doctoral in Integrative Physiology and Rehabilitation Sciences. Work will reflect a research project designed by the doctoral candidate, their doctoral committee chair and with input from the doctoral committee members. Level: Graduate

## Health Enhancement (HEE)

**HEE 203 - Professional Activities I. 2 Credits.**

The instruction of basic skills for tennis, basketball, and Western Swing. Techniques, drills, and strategies will be taught. Demonstration and instruction skills developed. Active participation required.

**HEE 204 - Professional Activities II. 2 Credits.**

The instruction of basic skills for soccer, volleyball, and golf. Techniques, drills, and strategies will be taught. Demonstration and instruction skills developed. Active participation required.

**HEE 291 - Special Topics. 1-6 Credits.**

(R-6) Offered intermittently. Experimental offerings of visiting professors, experimental offerings of new courses, or one-time offerings of current topics.

**HEE 292 - Independent Study. 1-6 Credits.**

(R-6) Offered every term. Course material appropriate to the needs and objectives of the individual student.

**HEE 301 - Methods of Secondary Health Education. 3 Credits.**

Prereq., WRIT 101 or WRIT 201. Application of educational theory in planning, analyzing, and presenting learning experiences to typical and atypical populations in secondary school physical education for students in grades 7-12. Active participation required.

Gen Ed Attributes: Writing in the Disciplines

**HEE 302 - Methods of Instructional Strategies in Elementary PE. 3 Credits.**

Offered every term. Restricted to students in the Teacher Education Program and majors in Elementary Education or Early Childhood Education. Application of educational theory in planning, analyzing, and presenting learning experiences to typical and atypical populations in elementary school physical education for children in grades K-6. Active participation required.

**HEE 340 - Methods of Health Education. 3 Credits.**

Restricted to students in the Teacher Education Program. Focus on developing and implementing strategies to teach K-12 health education.

**HEE 391 - Special Topics. 1-6 Credits.**

(R-6) Offered intermittently. Experimental offerings of visiting professors, experimental offerings of new courses, or one-time offerings of current topics.

**HEE 490 - Undergraduate Research. 1-3 Credits.**

(R-6) Offered every term. Directed individual research and study appropriate to the background and objectives of the student. Level: Undergraduate

**HEE 492 - Independent Study. 1-3 Credits.**

(R-6) Offered every term. Course material appropriate to the needs and objectives of the individual student. Level: Undergraduate

**HEE 498 - Internship. 2-6 Credits.**

(R-6) Offered every term. Restricted to students with at least junior standing. Extended classroom experience that provides practical application of classroom learning during placements off campus. Prior approval must be obtained from the faculty supervisor. A maximum of 6 credits of Internship (198, 298, 398, 498) may count toward graduation. Level: Undergraduate

## Health Information Technology (HIT)

**HIT 101 - Intro to Healthcare Informatic. 3 Credits.**

Offered spring. Offered at Missoula College. Introduces the discipline of healthcare informatics. An overview of the subject including history, basic knowledge of healthcare informatics and tools as applied in support of healthcare delivery. Students will gain an introductory level about the complexities of health care and how informatics fits within the US Healthcare System.

**HIT 265 - Electronic Health Records. 3 Credits.**

Offered at Missoula College. An introduction to the electronic health record (EHR). Students will study the use of the EHR in improving healthcare quality, accessibility, and cost-effectiveness. EHR implementation and its use within the internal clinical office will be examined. The EHR will be studied in the context of a comprehensive Health Information System (HIS) supporting our society's interdisciplinary clinical healthcare system.

**HIT 291 - Special Topics. 1-6 Credits.**

(R-6) Offered intermittently. Offered at Missoula College. Experimental offerings of visiting professors, experimental offerings of new courses, or one-time offerings of current topics.

**HIT 292 - Independent Study. 1-6 Credits.**

(R-6) Offered intermittently. Offered at Missoula College. Course material appropriate to the needs and objectives of the individual student.

## Heavy Equipment Operation (HEO)

**HEO 146 - Safety & Basic Controls. 5 Credits.**

Offered autumn. Offered at Missoula College. Orientation to the safe operation and basic control of crawler-tractors, scrapers, front-end loaders, motor graders, backhoes, trucks, and other heavy equipment units. Sufficient time is allowed for the development of basic machine operational skills.

**HEO 148 - Operational Skill Building. 5 Credits.**

Offered autumn. Offered at Missoula College. Advancement of basic skills. Proper understanding and operation of heavy equipment is pursued. Time is allowed for development of proper operational techniques.

**HEO 150 - Job Simulation. 6 Credits.**

Offered spring. Offered at Missoula College. Prereq., HEO 146 and HEO 148. Incorporates learned skills into entry-level, industrial situations. Emphasis is on advanced equipment usage, problem definition and resolution, project-type earth moving assignments, proper equipment, and safety regulations. Course may allow participation in cooperative project efforts within the community.

**HEO 151 - Service & Maintenance. 2 Credits.**

Offered autumn. Offered at Missoula College. Different types of lubricants and their applications, scheduled and preventive maintenance procedures, and importance of periodic services and maintenance. Also included are safety procedures and regulations.

**HEO 153 - Construction Theory & Specialized Equipment. 5 Credits.**

Offered spring. Offered at Missoula College. Prereq., M 111 or M 105 and HEO 148. Study of construction principles, specialized equipment, production estimates, and various related subjects.

**HEO 191 - Special Topics. 1-6 Credits.**

(R-6) Offered at Missoula College. Experimental offerings of visiting professors, experimental offerings of new courses, or one time offerings of current topics.

**HEO 192 - Independent Study. 1-6 Credits.**

Offered at Missoula College. Course material appropriate to the needs and objectives of the individual student.

## Historic Preservation (HPRV)

**HPRV 400 - Historic Preservation. 3 Credits.**

Offered spring even-numbered years. This course is intended to provide a comprehensive foundation to historic preservation practice and issues. Topics include the history and theory of the American historic preservation movement, identification and documentation of historic properties, preservation technology, strategies for conservation of historic resources and a critical examination of the philosophy and principles of preservation. Level: Undergraduate-Graduate

## History: American (HSTA)

**HSTA 101H - American History I. 4 Credits.**

(AM) Offered autumn. A comprehensive introductory history of Colonial, Revolutionary, and 19th century America, to 1877. Lecture-discussion. Credit not allowed for both 101H and 103H.

Gen Ed Attributes: Historical Studies, Democracy and Citizenship

**HSTA 102H - American History II. 4 Credits.**

(AM) Offered spring. A comprehensive introductory history of the U.S. since 1877. Lecture-discussion. Credit not allowed for both HSTA 102H and 104H.

Gen Ed Attributes: Historical Studies, Democracy and Citizenship

**HSTA 103H - Honors American History I. 4 Credits.**

(AM) Offered autumn. Enrollment by consent of instructor. A comprehensive introductory history of Colonial, Revolutionary, and 19th century America, to 1877. Lecture-honors discussion. Credit not allowed for both 103H and 101H.

Gen Ed Attributes: Historical Studies, Democracy and Citizenship

**HSTA 104H - Honors American History II. 4 Credits.**

(AM) Offered spring. Enrollment by consent of instructor. A comprehensive introductory history of the U. S. since 1877. Lecture-honors discussion. Credit not allowed for both HSTA 102H and 104H.

Gen Ed Attributes: Historical Studies, Democracy and Citizenship

**HSTA 150H - The Veteran's Experience. 3 Credits.**

Offered autumn and spring. Offered at Missoula College. Interdisciplinary, historical perspective of the veteran's experience in American history, since antiquity, and in American society today. Examines the nature of military service, experiences of war, and consequences of service and war on veterans and their families through the study of sources from history, classical literature, literature, philosophy, and ethics.

Gen Ed Attributes: Historical Studies, Democracy and Citizenship

**HSTA 191 - Special Topics. 1-6 Credits.**

(R-6) Experimental offerings of visiting professors, experimental offerings of new courses, or one-time offerings of current topics.

**HSTA 198 - Internship. 1-6 Credits.**

(R-6) Extended classroom experience that provides practical application of classroom learning during placements off campus. Prior approval must be obtained from the faculty supervisor. A maximum of 6 credits of Internship (198, 298, 398, 498) may count toward graduation.

**HSTA 201E - History of American Democracy. 4 Credits.**

(AM) Offered Intermittently. What does it mean for "the people" to rule? Who should be able to vote? Should social equality be guaranteed to all? This course explores how Americans have battled over these and other ethical questions of democratic governance and society from the founding of the United States to the recent past. It highlights fundamental struggles over political, socio-economic, and cultural power and their relationship to governance as well as tensions between the United States' professed democratic commitments to equality and its persistent practices of, for example, imperialism, racism, sexism, and labor exploitation.

Gen Ed Attributes: Ethical & Human Values, Democracy and Citizenship

**HSTA 255 - Montana History. 3 Credits.**

(AM) Offered autumn. This course surveys Montana history from the time of first human inhabitants (13,500 years ago) to the present. Lectures provide an outline of Montana history, focusing on major social, political, and economic developments. Course readings provide interesting and revealing accounts of Native American cultures and contacts between Montana Indians and non-Indians, metals mining and industrial development, homesteading and rural life, and the state's environment and landscape.

**HSTA 275 - Making History Public. 3 Credits.**

(AM) Explores the wide-ranging field of public history. Examines the methods, theories, and ethics that guide how public historians exhibit history in museums, engage the public with digital projects, provide historical context in public places, work with local communities, and use historical expertise in law and policy. Discusses current and past controversies in public history and surveys how the digital age has transformed aspects of public history. Students work on a class project that will give them hands-on experience with a real public history project. Field trips included.

Gen Ed Attributes: Historical Studies

**HSTA 285H - Sex in America: Gender and Sexuality in U.S. History. 3 Credits.**

(AM) Offered intermittently. This course provides a broad overview of the history of gender and sexuality in America. This course investigates the varied and changing attitudes toward gender identity, gender roles, gender relations, sexual difference, sexual identity, and sexual relationships in North America from the fifteenth century to the present. By examining how ideas about gender, sex, and sexuality have changed over time and varied according to race, class, religion, and ethnicity, students will gain historical perspective on contemporary debates on these issues.

Gen Ed Attributes: Historical Studies

**HSTA 291 - Special Topics. 1-12 Credits.**

(R-12) (AM) Experimental offerings of visiting professors, experimental offerings of new courses, or one-time offerings of current topics.

**HSTA 307Y - The American Revolution and Founding Era. 3 Credits.**

(AM) Offered intermittently. This course introduces students to the critical period of the American Revolution and Founding era (c. 1760-1790). The first part examines the origins of the Revolution and its aftermath with particular attention to political, intellectual, economic, social, and cultural factors. The second part examines the creation and ratification of the United States Constitution.

Gen Ed Attributes: Democracy and Citizenship

**HSTA 308 - Hunting in America. 3 Credits.**

(AM) This course explores the history of hunting, including its broader social and environmental dimensions. The course will trace the way ideas, technology, and laws/policies have shaped hunting and the way that hunting has shaped wildlife populations and the environment. We will also examine the way that hunting connects with cultural ideas about nature, human nature, wilderness, religion, gender, race, and nationalism.

**HSTA 315 - Early American Republic. 3 Credits.**

(AM) Prereq., WRIT 101 or WRIT 201. This course explores the dynamic and formative period of United States history between the American Revolution and the Civil War. Topics include the U.S. Constitution & the early American state; political culture & the rise of democracy; western empire & Native American dispossession; religion & reform; the expansion of southern slavery & the growth of northern market capitalism; sectional conflict and the threat of civil war.

Gen Ed Attributes: Writing Across the Curriculum

**HSTA 316 - American Civil War Era. 3 Credits.**

(AM) Civil War and Reconstruction; the triumph of the industrialist and capitalist ethic.

**HSTA 317 - Automobile in American History. 3 Credits.**

In this course we will trace how technological innovations created and shaped the automobile over time and how the automobile has shaped residential patterns, public space, the environment, energy use, transportation systems, and culture. We will also explore how the automobile has intersected with many key aspects of social life, including the law, gender, race, industry, and labor, often provoking questions about fundamental concepts like risk and freedom.

**HSTA 320 - Birth of Modern US. 3 Credits.**

(AM) The history of the U.S. from 1877 to 1920 is largely the story of Americans responding to profound social, cultural and economic change.

In an effort to bring order to their changing world, Americans created new institutions, retooled their ideologies, and improved the nation's infrastructure. The order they created is, in modified form, still with us today. Students will explore the myriad changes that transformed the United States during this period and study the social, political, and cultural struggles that shaped the emergence of Modern America.

**HSTA 321 - America in Crisis. 3 Credits.**

(AM) This era in U.S. history was marked by a series of crises: the contested transition to modernity during the 1920s, the Great Depression, and World War II and its aftermath. This course will explore how Americans responded to these crises, why they responded to them the way they did, and how their responses altered the society in which they lived.

**HSTA 322 - U.S. History: WWII to Present. 3 Credits.**

(AM) The Cold War and its consequences, the civil rights revolution, affluence and anxiety, counter-culture, political radicalism, feminism, the Nixon years, Watergate and after.

**HSTA 323 - U.S. in the 1950s. 3 Credits.**

(AM) Examines the political, social, cultural, intellectual developments of America in the 1950s. Particular emphasis is placed on cultural history.

**HSTA 324 - U.S. in the 1960s. 3 Credits.**

(AM) Examines the political, social, cultural, intellectual developments of America in the 1960s. Topics include the Great Society, political radicalism, the counter culture, black radicalism, and Vietnam.

**HSTA 326 - Digital Worlds of Early America. 3 Credits.**

(AM) Offered Intermittently. Surveys early American history, with particular attention to the period between 1600 and 1776. Examines the impact of our digital age on the practice of early American history and the dissemination of knowledge about it to a wide public. Through assignments and hands-on projects, students will learn about the digital humanities and explore specific digital history approaches, methods, and public outreach.

Gen Ed Attributes: Writing Across the Curriculum

**HSTA 333 - American Military History. 3 Credits.**

(R-6) (AM) The French and Indian Wars to Vietnam and beyond; chronological and topical accounts.

**HSTA 335 - Movie America. 3 Credits.**

(AM) This course examines major topics and themes in United States history from the early twentieth century to the present using movies as primary sources.

**HSTA 336E - America at War, 1898-Present. 3 Credits.**

(AM) This course examines United States military history from the War of 1898 to the present, focusing in particular on the nation's involvement in World War I, World War II, the Vietnam War, and the Middle East. It takes a broad view of military history, studying battles, tactics, and diplomacy and the influence that wars and warfare have had on American society and the nation's role in the world. This course pays particular attention to the ethical questions and dilemmas that arise in war.

Gen Ed Attributes: Ethical & Human Values

**HSTA 342H - African American History to 1865. 3 Credits.**

(AM) Offered intermittently. Survey of the African American experience from the African background to the end of the Civil War. Focus on Black American quest for the American Dream, and how Blacks attempted to deal with the challenges of enslavement and racism.

Gen Ed Attributes: Historical Studies

**HSTA 343H - African American History Since 1865. 3 Credits.**

(AM) Study of the African American experience since the Civil War. Change and continuity in the African American experience, the fight against Jim Crow, the struggle for civil rights, and post-civil rights economic, political, social and cultural developments and challenges.

Gen Ed Attributes: Historical Studies

**HSTA 344 - African-American Struggle for Equality. 3 Credits.**

(AM) A survey of the various efforts by African Americans to achieve racial equality in the United States from the late 19th century through the 1960s.

**HSTA 347 - Voodoo, Muslim, Church: Black Religion. 3 Credits.**

(AM) The African-American religious experience encompasses Islam, Christianity, Santeria, voodoo, and many others. In this course, students will examine the history of religious expression within the African-American community from the colonial era through the twentieth century. Central to the course is the question, "How did religion shape the experience of the African-American community?" Students will also examine the ways in which religious practice influenced social, political, and cultural changes in American history.

Gen Ed Attributes: Writing Across the Curriculum

**HSTA 361 - The American South. 3 Credits.**

(AM) Social history of the American South with particular attention to race, class, and gender.

**HSTA 364 - Native American History to 1830. 3 Credits.**

Offered autumn. Examines Native American relations with European colonial empires and the United States from first contact to 1830. Discusses policies and mission work Europeans directed at Indigenous peoples as well as Indigenous efforts to retain their lands, cultures, and sovereignty. Also considers ways European-Indigenous relations contributed to alliances and conflicts among Europeans and among diverse Indigenous nations.

**HSTA 365 - Native American History from 1830. 3 Credits.**

Offered spring. Examines Native American relations with the United States federal government as well as other non-Native groups from the passage of the 1830 Indian Removal Act through the mid-1970s, ending with the transition from Termination Policy to Self-Determination Policy. Focuses on U.S. federal policies; strategies different Indigenous communities employed to resist non-Native encroachment; and the short and long-term consequences for Indigenous peoples.

**HSTA 370H - Women in America: Colonial Period to Civil War. 3 Credits.**

(AM) Offered autumn. Interpretive overview of major themes and events in U.S. women's history to 1865. Same as WGS 370H.

Gen Ed Attributes: Historical Studies



**HSTA 371H - Women in America: From the Civil War to the Present. 3 Credits.**

(AM) Offered spring. Interpretive overview of major themes and events in U.S. women's history from 1865 to the present.

Gen Ed Attributes: Historical Studies

**HSTA 373 - The History of American Thought to 1865. 3 Credits.**

(AM) Offered alternate years. This course introduces students to major themes, questions, topics, and problems in American intellectual life from the early seventeenth century until the Civil War. It addresses the intellectual traditions upon which the United States was built and explores the history of American thought at the intersections of the history of religion, art, politics, scientific explorations, education, gender, race, and culture. Gen Ed Attributes: Writing Course-Intermediate

Gen Ed Attributes: Writing Across the Curriculum

**HSTA 374 - Doing Local History: Missoula. 3 Credits.**

(AM) Offered Intermittently. This course introduces students to the history of Missoula and the surrounding area, as well as to the practice of public history. Students will complete a hands-on project in researching and disseminating local history. Possible approaches include conducting oral histories, engaging in digital history, and/or creating historical exhibits or tours.

**HSTA 377 - Alcohol in American History. 3 Credits.**

(AM) This course explores the controversial history of alcohol in American history beginning in the colonial period and ending in the recent past. It blends varied historical approaches, including political, legal, business, social, and cultural history, to interrogate the manifold ways that alcohol has shaped the American nation and the everyday lives of its citizens.

**HSTA 380 - United States Constitutional History. 3 Credits.**

(AM) An examination of major issues in the American constitutional past. Topics include the creation of the U.S. Constitution and the problem of original intent, courts and judicial review, slavery and anti-slavery, the Bill of Rights, industrial capitalism and the welfare state, and majority rule and minority rights in American democracy.

**HSTA 382 - United States Legal History. 3 Credits.**

(AM) This course explores the development of American law and its interaction with broader society during the long nineteenth century (1787-1933). Topics include the creation of the U.S. Constitution; the legal promotion and regulation of economic life; slavery, antislavery, and the law; the changing legal status and activism of women, African Americans, immigrants, and workers; the emergence of the modern American state; and struggles over civil rights and civil liberties. No prior knowledge of the law is required.

**HSTA 385 - Families & Children in America. 3 Credits.**

(AM) Historical overview of families and children in the United States from the colonial era to the present. Topics include changing patterns of family life, the evolution of attitudes toward children and youth, the relationship between the American family and the nation-state, and debates over "family values" from the nation's founding to the present. Gen Ed Attributes: Writing Across the Curriculum

**HSTA 391 - Special Topics. 1-12 Credits.**

(R-12) Experimental offerings of visiting professors, experimental offerings of new courses, or one-time offerings of current topics.

**HSTA 405 - Public Problems & United States Democracy. 3 Credits.**

(AM) Offered Intermittently. This course challenges students to engage in the craft of researching and writing history. It is structured around the general theme of public problems and American democracy. Students are required to make an original contribution to our historical understanding of this theme by crafting a substantial research essay rooted in the analysis of primary sources. Level: Undergraduate and Graduate. Graduate students must receive advisor approval before registering for this course.

Gen Ed Attributes: Writing in the Disciplines

**HSTA 415 - The Black Radical Tradition. 3 Credits.**

(AM) Offered intermittently. Prereq., WRIT 101 or WRIT 201 and HSTR 200. Restricted to majors and minors in History or African-American Studies. From slave revolts through to the Move rebellion in Philadelphia, this course examines how the African-American community has engaged in radical efforts to change the status quo in the name of seeking justice. Level: Undergraduate and Graduate. Graduate students must receive advisor approval before registering for this course.

Gen Ed Attributes: Writing in the Disciplines

**HSTA 417 - Prayer & Civil Rights. 3 Credits.**

(AM) Prereq., WRIT 101 and HSTR 200. Restricted to majors and minors in History or African-American Studies. This course explores the meaning of public prayer in the Civil Rights Movement. Built around the question, "Does religion help or hinder the pursuit of social change?" this class combines historical and religious studies inquiry to trace changes in civil rights activists' efforts to make use of religion. By focusing on a particular religious practice - in this case prayer - in a specific, but limited period of time, this course challenges students to consider how meaning is formed through historical action and study the social significance of religious practice. This formed through historical action and study the social significance of religious practice. This course complicates prevailing ideas about the normalcy of African-American religious practitioners' prayer, invites students to examine their assumptions about the nature of prayer, and traces how religion spilled out of sanctuaries into the streets during the civil rights era. Level: Undergraduate/Graduate. Graduate students must receive advisor approval before registering for this course.

Gen Ed Attributes: Writing in the Disciplines

**HSTA 427 - Freedom, Slavery, Equality: Early American Perspectives. 3 Credits.**

(AM) Offered Intermittently. Prereq., WRIT 101 or WRIT 201 and HSTR 200. This research seminar familiarizes students with the practice of historical research and writing. Our focus is on the study of freedom, slavery, and equality in early America (c. 1600-1860). Students produce an original piece of historical writing based on primary source research. Level: Undergraduate and Graduate. Graduate students must receive advisor approval before registering for this course.

Gen Ed Attributes: Writing in the Disciplines

**HSTA 461 - Research in Montana History. 3 Credits.**

(AM) Prereq., HSTR 200. Restricted to history majors and minors and graduate students in history. This course is a research and writing seminar in Montana history. Students will learn advanced research methodology in history and will be exposed to a variety of databases and source collections in Montana history that are available locally and online. Students will research and write a primary-source based paper on a topic in Montana history. This course fulfills the upper-division writing requirement for the history department and the university. Level: Undergraduate and Graduate. Graduate students must receive advisor approval before registering for this course.

Gen Ed Attributes: Writing in the Disciplines



**HSTA 463 - Research in 19th-20th Century Native American History. 3 Credits.**

Offered Intermittently. Prereq., WRIT 101 or WRIT 201; and HSTR 200 or NASX 105H. Restricted to History or Native American Studies majors and minors and graduate students in History or Native American Studies. Research seminar providing students with the tools and techniques necessary to be successful researchers and writers of Native American history. Students will learn how to locate, access, and analyze a variety of sources and will write a final paper on a topic of their choice related to 19th or 20th-century Native American history. Also discusses the importance of conducting ethical historical research about and/or for Indigenous communities. Level: Undergraduate and Graduate. Graduate students must receive advisor approval before registering for this course. Gen Ed Attributes: Writing in the Disciplines

**HSTA 471 - Writing Women's Lives. 3 Credits.**

(AM) Prereq., WRIT 101 or HSTR 200. Writing-intensive seminar in women's history. Students will write an original research paper based on primary source materials. Level: Undergraduate and Graduate. Graduate students must receive advisor approval before registering for this course. Gen Ed Attributes: Writing in the Disciplines

**HSTA 491 - Special topics. 1-12 Credits.**

(R-12) Experimental offerings of visiting professors, experimental offerings of new courses, or one-time offerings of current topics. Level: Undergraduate and Graduate. Graduate students must receive advisor approval before registering for this course.

**HSTA 494 - Seminar. 1-6 Credits.**

(R-6) A review and discussion of current research. Topics vary. Level: Undergraduate and Graduate. Graduate students must receive advisor approval before registering for this course.

**HSTA 501 - Readings in Early American History. 3 Credits.**

Restricted to students in graduate History programs. Graduate readings course in U.S. history covering the period from pre-contact to 1877. Level: Graduate

**HSTA 502 - Readings in Modern American History. 3 Credits.**

Restricted to students in graduate History programs. Graduate readings course in U.S. history covering the period from 1877 to the present. Level: Graduate

**HSTA 553 - Modern America. 3 Credits.**

Restricted to students in graduate History programs. Intensive reading in modern American history. Level: Graduate

**HSTA 566 - The American West. 3 Credits.**

Restricted to students in graduate History programs or by consent of instructor. Intensive reading in the history of the American West. Level: Graduate

**HSTA 570 - U.S. Women's History. 3 Credits.**

Restricted to students in graduate History programs. Intensive readings in U.S. Women's history. Level: Graduate

**HSTA 575 - Public History. 3 Credits.**

Restricted to students in graduate History programs. This graduate colloquium introduces students to the wide-ranging field of public history. Examines the methods, theories, and ethics that guide how public historians exhibit history in museums, engage the public with digital projects, provide historical context in public places, work with local communities, and use historical expertise in law and policy. Discusses current and past controversies in public history and surveys how the digital age has transformed aspects of public history. May include field trips. Level: Graduate

**HSTA 577 - Law, Capitalism, and Democracy in U.S. History. 3 Credits.**

Restricted to students in graduate History programs. This graduate colloquium introduces students to the scholarly literatures of three broad and overlapping fields: U.S. legal history and the history of the American state; the history of American capitalism; and the history of American democracy. Students will interrogate classic scholarship and gain a strong understanding of the current state of scholarly conversations in these fields. Level: Graduate.

**HSTA 591 - Special Topics. 1-9 Credits.**

(R-24) Restricted to students in graduate History programs. Experimental offerings of visiting professors, experimental offerings of new courses, or one-time offerings of current topics. Level: Graduate

**HSTA 594 - Research Seminar. 1-12 Credits.**

(R-12) Restricted to students in graduate History programs. Independent research under the direction of a faculty member. Level: Graduate

**HSTA 598 - Internship. 1-8 Credits.**

(R-8) Restricted to students in graduate History programs. Extended classroom experience that provides practical application of classroom learning during placements off campus. Prior approval must be obtained from the faculty supervisor. Level: Graduate

**HSTA 599 - Thesis/Professional Paper. 1-6 Credits.**

(R-6) Restricted to students in graduate History programs. Preparation of a thesis or professional paper appropriate to the needs and objectives of the individual student. Level: Graduate

**HSTA 699 - Dissertation. 1-6 Credits.**

(R-6) Restricted to students in graduate History programs. Preparation of a dissertation based on research for presentation and/or publication. Level: Graduate

## History: World (HSTR)

**HSTR 101H - Western Civilization I. 4 Credits.**

(EU) Offered autumn. A comprehensive, introductory history of western civilization from classical antiquity to 1648. Lecture-discussion. Credit not allowed for both 101H and 103H. Gen Ed Attributes: Historical Studies, Democracy and Citizenship

**HSTR 102H - Western Civilization II. 4 Credits.**

(EU) Offered spring. A comprehensive, introductory history of western civilization from 1648 to the present. Lecture-discussion. Credit not allowed for both HSTR 102H and 104H. Gen Ed Attributes: Historical Studies, Democracy and Citizenship

**HSTR 103H - Honors Western Civilization I. 4 Credits.**

(EU) Offered autumn. A comprehensive, introductory history of western civilization from classical antiquity to 1648. Lecture-honors discussion. Credit not allowed for both 103H and 101H. Gen Ed Attributes: Historical Studies, Democracy and Citizenship

**HSTR 104H - Honors Western Civilization II. 4 Credits.**

(EU) Offered spring. A comprehensive introductory history of western civilization from 1648 to the present. Lecture-honors discussion. Credit not allowed for both HSTR 102H and 104H. Gen Ed Attributes: Historical Studies, Democracy and Citizenship

**HSTR 191 - Special Topics. 1-6 Credits.**

(R-6) Experimental offerings of visiting professors, experimental offerings of new courses, or one-time offerings of current topics.

**HSTR 198 - Internship. 1-6 Credits.**

(R-6) Extended classroom experience that provides practical application of classroom learning during placements off campus. Prior approval must be obtained from the faculty supervisor. A maximum of 6 credits of Internship (198, 298, 398, 498) may count toward graduation.

**HSTR 200 - Introduction to Historical Methods. 1 Credit.**

Offered autumn and spring. This course introduces students to the practice of history and prepares them for upper-division courses in the field. Students will learn to critically read secondary sources, research in primary sources, analyze documents, and write clear and convincing historical essays. This course is required for recently declared history majors and minors. Students should take it before taking upper-division history courses.

**HSTR 210E - History of the Bible. 3 Credits.**

(WRLD) Offered Intermittently. This course explores the history of the peoples, places, ideas, and texts that combined over hundreds of years to produce the Bible as a single book, and examines the influence of this book on the development of Western thought and culture. The course offers an introduction to the Hebrew Bible / Old Testament and the ancient world of its authors from literary, historical, social, anthropological, and archaeological perspectives.

Gen Ed Attributes: Ethical & Human Values, Literary & Artistic Studies

**HSTR 211L - Early Christianity. 3 Credits.**

(WRLD) Offered Intermittently. This course offers an introduction to the history, literature and religion of earliest Christianity. The course offers an introduction to the New Testament and the ancient world of its authors from literary, historical, social, and archaeological perspectives.

Gen Ed Attributes: Ethical & Human Values, Literary & Artistic Studies

**HSTR 221H - God- Past, Puzzle, Present. 3 Credits.**

(WRLD) Offered intermittently. This class explores the idea of God across time and space from antiquity through the present. In particular, students will examine how forces of history have shaped notions of divinity and examine how those ideas and the institutions and practices they inspire have in turn shaped historical events. At the root of the semester's exploration is the puzzle of why immanent, earthly beings have for so long been drawn to the ethereal and transcendent and how that attraction has changed over time. Includes one observation of a community religious service.

Gen Ed Attributes: Historical Studies

**HSTR 230H - Colonial Latin America. 3 Credits.**

(WRLD) Latin America from conquest by Spain and Portugal to wars for independence. Focus on social relations, imperial and local politics, hegemony, resistance, and change.

Gen Ed Attributes: Historical Studies, Cultural & International Diversity

**HSTR 231H - Modern Latin America. 3 Credits.**

(WRLD) Offered spring. Latin America from wars of independence to the present. Focus on social relations, development models, politics, and popular movements.

Gen Ed Attributes: Historical Studies, Cultural & International Diversity

**HSTR 240H - East Asian Civilizations. 3 Credits.**

(WRLD) Offered autumn. An interdisciplinary, pluralist, and exploratory introduction to civilizations of East Asia. Primary focus on China, Japan, and Korea, the relations among them and their patterns of interaction with the outside world in pre-modern and modern periods.

Gen Ed Attributes: Historical Studies, Cultural & International Diversity

**HSTR 262H - Islamic Civilization: Classical Age. 3 Credits.**

(WRLD) A concise history of the Islamic world from the 6th century to the fall of the Abbasid Empire in the 13th century, focusing primarily on the teachings of Islam and the causes for the rapid expansion of the Islamic empire.

Gen Ed Attributes: Historical Studies

**HSTR 264H - Islamic Civ: Modrn Era. 3 Credits.**

(WRLD) A concise history of the Islamic world from the 13th century to present.

Gen Ed Attributes: Historical Studies

**HSTR 272E - Terrorism: Violence in the Modern World. 3 Credits.**

(WRLD) The rise and spread of terrorism in the modern world, from the French Revolution to the present.

Gen Ed Attributes: Ethical & Human Values

**HSTR 291 - Special Topics. 1-12 Credits.**

(R-12) Experimental offerings of visiting professors, experimental offerings of new courses, or one-time offerings of current topics.

**HSTR 300 - Writing For History. 3 Credits.**

Students will learn the fundamentals of writing history through study of a topic that will change according to the expertise of the instructor of record. Through a multi-drafting writing process students will hone their research skills, learn how to craft interpretive theses, develop outlines, and gain experience in drafting and re-drafting their written work. Students will also learn how to compose strong prose, organize historical arguments, and manage the mechanics of proper citation.

Gen Ed Attributes: Writing Across the Curriculum

**HSTR 302H - Ancient Greece. 3 Credits.**

(EU) Greek history from the earliest times through the Macedonian ascendancy, based on the writings of the Greek historians.

Gen Ed Attributes: Historical Studies

**HSTR 303 - Alexander the Great and the Hellenistic World. 3 Credits.**

(EU) Offered Intermittently. Greek history from the rise of Macedon to the Roman conquest (c. 360 - 30, BCE). Focuses primarily on the historical context, life, and legacy of Alexander III (the Great).

**HSTR 304H - Ancient Rome. 3 Credits.**

(EU) Roman history from the time of the Kings through the early Empire. Based on the writings of the Roman historians.

Gen Ed Attributes: Historical Studies

**HSTR 309 - The First Historians. 3 Credits.**

(WRLD) Offered Intermittently. This course explores the ways in which history was thought about, understood, and written in the ancient world. The course surveys a diverse selection of historiographic sources from the ancient Near East, Mediterranean and North Africa, from prehistory and the beginnings of writing in Mesopotamia to the historians of Greco-Roman Judea and Christendom.

**HSTR 312 - Age of Absolutism 1648-1789. 3 Credits.**

(EU) The political, economic, intellectual, and social development of Europe 1648-1789.

**HSTR 313 - Religion and Violence. 3 Credits.**

(WRLD) Offered Intermittently. This course explores the phenomenon of violence in the history of religion. Topics include: prehistoric religion and warfare; conflict myths and the divine warrior; holy war; monotheism and iconoclasm; sacrifice; curses and magic spells; witchcraft accusations; sectarianism; apocalypticism; martyrdom.

**HSTR 314 - Origins of Western Religion. 3 Credits.**

(WRLD) Offered Intermittently. This course explores the beginnings of biblical religions and the early history and literature of Judaism and Christianity. Topics include: the emergence of Judaism and Christianity in the Persian, Greek, and Roman empires; religions of the ancient Middle East and Mediterranean; stories of Jewish and Christian origins; the historical Jesus; the early rabbinic movement; Paul between Judaism and Christianity; the Dead Sea Scrolls.

**HSTR 315 - Reformation. 3 Credits.**

(EU) This course covers Europe's "long Reformation," beginning with efforts toward reform in late medieval Latin Christendom, discussing Luther, Calvin, and other major reformers and movements, popular religion, witchcraft, the age of religious wars, and the legacy of reformation, continuing into contemporary society.

**HSTR 319 - Prophets and Prophecy. 3 Credits.**

(WRLD) Offered Intermittently. This course explores the phenomenon of prophecy in history, society, and literature. It focuses on literature by and about prophets in biblical antiquity and on the political roles of prophets in ancient societies. The course surveys the history of prophecy from a variety of perspectives and disciplines including anthropology, sociology, archaeology, literary studies, and comparative religion.

**HSTR 321 - The Roman Empire. 3 Credits.**

(EU) Roman history from the early empire through the fall of Rome.

**HSTR 323 - European Social and Intellectual History: The 19th Century. 3 Credits.**

(EU) Romanticism, Realism, and the Avant-Garde against the historical background of the Industrial Revolution and urbanization.

**HSTR 325 - European Social and Intellectual History: The 20th Century. 3 Credits.**

(EU) The triumph of the Avant-Garde and the decline of traditional culture: 1914-1945.

**HSTR 326 - Contemporary Europe. 3 Credits.**

(EU) European politics, culture, and society since 1945.

**HSTR 329 - Plagues, People, & Environment. 3 Credits.**

This course explores plagues and pandemics: massive disease events that spread across continents and the globe. We will look at how environments and social conditions gave rise to and shaped diseases. We will also look at how those diseases disrupted, devastated, and otherwise shaped human societies and groups within them.

**HSTR 334 - Latin America: Reform & Revolution. 3 Credits.**

(WRLD) Different ideologies and projects in Latin America aimed at gradual or radical transformation of political systems and/or socio-economic relations. From the Haitian Revolution to the Bolivarian vision of Hugo Chavez.

Gen Ed Attributes: Writing Across the Curriculum

**HSTR 335 - Latin America: Workers & Labor. 3 Credits.**

(WRLD) Study of the experiences and agency of diverse working people in Latin America. Influence of race, ethnicity, gender, religion, and generation on working class identity and movements. Labor organizations and politics in historic context.

**HSTR 337 - The History of Capitalism in Latin America, 1492 to the Present. 3 Credits.**

(WRLD) Offered intermittently. A study of Latin America's significant role in the origins and trajectory of global capitalism, and the effects of capitalism on Latin American politics, social relations, culture, and the environment. Includes perspectives from capitalism's champions and its critics.

**HSTR 338 - The History of Democracy in Latin America. 3 Credits.**

Offered intermittently. Explores the struggles of Latin American countries to establish and maintain democratic forms of governance from the late 18th to the 21st century. Looks at challenges to elite-dominated notions of political democracy by groups calling for greater racial, gender, and economic inclusion and justice.

**HSTR 348 - Britain 1485-1688. 3 Credits.**

(EU) Social, political, religious, and intellectual history of the British peoples during the tumultuous period of reformation, exploration, constitutional crisis, and civil war.

**HSTR 349 - Britain from Revolution to Reform 1688. 3 Credits.**

(EU) The social, political, cultural, and intellectual consequences of British expansion, financial and industrial revolutions, and revolutionary movements.

**HSTR 350 - Modern Britain. 3 Credits.**

(EU) Social, political, intellectual, and cultural history of the United Kingdom from an age of industry, empire, and political reform to one of economic decline and international retreat.

**HSTR 351 - Democracy: Ancient to Modern. 3 Credits.**

(EU) Offered Intermittently. During the 6th century BCE, the Greeks developed a new form of government that they called *demokratia* (literally, rule by the people), whose defining characteristics were equality among and meaningful political participation by all citizens, regardless of their socio-economic status. In this course, we will conduct an in-depth exploration of this historically distinctive form of government. We will also compare Greek democracies to subsequent institutions that have been described as democratic; examine the impact of Greek democracy on the development of modern political thought; and use our knowledge of Greek political history to reflect on issues of contemporary importance, such as the relationship between democracy per se and other normative goals that we often conflate with democracy (e.g., liberty, equality, and toleration).

**HSTR 353 - Modern France. 3 Credits.**

(EU) Political, economic, and social development.

**HSTR 354 - Italy: 1300-1800. 3 Credits.**

(EU) The emergence of the Italian states with an emphasis on cultural achievements in the late Medieval, Renaissance, Baroque, and Neoclassical periods.

**HSTR 355 - Italy: 1800-Present. 3 Credits.**

(EU) The emergence of a united Italy, the triumph of fascism and contemporary Italian society.

**HSTR 356 - The Age of Revolutions 1760-1848. 3 Credits.**

(EU) Using the French Revolution as its centerpiece, this course also examines related revolutionary movements in Europe and the Atlantic world.

**HSTR 357 - Russia to 1881. 3 Credits.**

(EU) Emphasis on the autocratic political tradition, Westernization, and territorial expansion.

**HSTR 358 - Russia Since 1881. 3 Credits.**

(EU) Emphasis on modernization and the revolutionary movement; the Bolshevik Revolution and Stalinist era; the decline of Soviet system.

**HSTR 361 - Germany: Augsburg-Bismarck. 3 Credits.**

(EU) Political, economic and social development of the states of the Holy Roman Empire from 1555-1866.

**HSTR 363 - Eastern Europe. 3 Credits.**

(EU) Main currents in the history of Eastern Europe from earliest times to the present. Focus on the lands of Poland, Bohemia, Hungary, and the Balkan region.

**HSTR 364 - Environmental History. 3 Credits.**

(AM) A history of the human-nature interaction in the United States.

**HSTR 365 - History of the Ancient Near East. 3 Credits.**

History of the ancient Near East from prehistoric times until the Greek Age. This course surveys the history, archaeology, literature, religions, and cultures of ancient Mesopotamia, Egypt, Asia Minor, North Africa, Arabia, and the Mediterranean East, and examines their discovery and legacy in modern times.

**HSTR 368 - Iran Between Two Revolutions. 3 Credits.**

(WRLD) The several intellectual traditions and philosophies some ephemeral and visionary, most eclectic and confused, and virtually all conflicting that are usually believed to underlie the varying concept of Iranian and Arab nationalism in the 20th century.

**HSTR 369 - 20th Century American West. 3 Credits.**

(AM) The contemporary trans-Mississippi West.

**HSTR 370 - Practicing Oral History. 3 Credits.**

Offered Intermittently. Learn a vital skill in public history—how to design, conduct, interpret, and present oral interviews. Students will use best practices in oral history to conduct interviews in the community, and will contribute these interviews to archives and online forums. Students may need to use their own phones or recording devices.

**HSTR 377 - European Internal Relations. 3 Credits.**

(EU) The nature, evolution, and functions of the European diplomatic system from the Ancient World to 1870.

**HSTR 386 - Nationalism and the Modern Middle East. 3 Credits.**

(WRLD) The socioeconomic, political, and cultural causes which resulted in the transformation of the Iranian society from a traditional Islamic entity to a modern secular state and the factors which led to the downfall of the secular state and the establishment of an Islamic republic.

**HSTR 391 - Special Topics. 1-12 Credits.**

(R-12) Experimental offerings of visiting professors, experimental offerings of new courses, or one-time offerings of current topics.

**HSTR 392 - Independent Study. 1-12 Credits.**

(R-12) Course material appropriate to the needs and objectives of the individual student.

**HSTR 394 - Seminar. 1-6 Credits.**

(R-6) A review and discussion of current research. Topics vary.

**HSTR 398 - Public History Internship. 1-6 Credits.**

(R-12) Offered every term. The public history internship program in History is designed to provide experiential learning opportunities for students in public or private agencies, including museums, libraries, schools, and government agencies. Prior approval must be obtained from the History Department Internship Coordinator. A maximum of 6 credits of Internship (198, 298, 398, 498) may count toward graduation.

**HSTR 400 - Historical Research Seminar. 3 Credits.**

(R-9) Prereq., HSTR 200. Restricted to history majors and minors and graduate students in history. Topics vary according to the instructor. The goal of this course is for students to propose and execute a substantial research project. Advanced writing course for the history major. Level: Undergraduate and Graduate. Graduate students must receive advisor approval before registering for this course. Level: Undergraduate/Graduate

Gen Ed Attributes: Writing in the Disciplines

**HSTR 401 - The Great Historians. 3 Credits.**

(EU) The history and philosophy of history. Graduate students must receive advisor approval before registering for this course. Level: Undergraduate/Graduate.

Gen Ed Attributes: Writing Across the Curriculum

**HSTR 435 - Latin American Human Rights & Memory. 3 Credits.**

(WRLD) The legacy of state violence and ongoing struggles for truth and justice in select Latin American case studies. Different uses of memory and narration in bearing witness to social and political conflict and human rights violations. Graduate students must receive advisor approval before registering for this course. Level: Undergraduate/Graduate

**HSTR 437 - US-Latin America Relations. 3 Credits.**

(WRLD) Prereq., HSTR 200. Restricted to history majors and minors and graduate students in history. Research and writing seminar on U.S.-Latin American relations from the late 18th century through the 20th century. Graduate students must receive advisor approval before registering for this course. Level: Undergraduate/Graduate

Gen Ed Attributes: Writing in the Disciplines

**HSTR 441 - Islam and the West. 3 Credits.**

(WRLD) Advanced analysis of the historical and contemporary issues involving the human communities, cultures, and economies in Central and Southwest Asia. Graduate students must receive advisor approval before registering for this course. Level: Undergraduate/Graduate

**HSTR 448 - Tradition & Reform in China. 3 Credits.**

(WRLD) A history of key reform movements from the mid-19th century (when China was rocked by rebellion and the entry of the West) to the Maoist period. Level: Undergraduate.

**HSTR 491 - Special Topics. 1-12 Credits.**

(R-12) Experimental offerings of visiting professors, experimental offerings of new courses, or one time offerings of current topics. Graduate students must receive advisor approval before registering for this course. Level: Undergraduate/Graduate

**HSTR 492 - Independent Study. 1-12 Credits.**

(R-12) Course material appropriate to the needs and objectives of the individual student. Graduate students must receive advisor approval before registering for this course. Level: Undergraduate/Graduate

**HSTR 494 - Seminar. 1-6 Credits.**

(R-6) A review and discussion of current research. Topics vary. Graduate students must receive advisor approval before registering for this course. Level: Undergraduate/Graduate

**HSTR 500 - History Pedagogy. 1 Credit.**

(R-4) Registration restricted to students in graduate History programs or by consent of instructor. This course prepares graduate students to teach undergraduate courses in history. Level: Graduate

**HSTR 501 - Readings in Early Modern History. 3 Credits.**

(R-6) Restricted to students in graduate History programs. A graduate readings seminar designed to acquaint students with European historiography. The chronological, geographic, or thematic focus of the course may vary, depending on the instructor. Level: Graduate

**HSTR 502 - Readings in Modern European History. 3 Credits.**

(R-6) Restricted to students in graduate History programs. A graduate readings seminar designed to acquaint students with the historiography of modern Europe. The chronological, geographic, or thematic focus of the course may vary, depending on the instructor. Level: Graduate



**HSTR 585 - Latin America. 3 Credits.**

Restricted to students in graduate History programs. Intensive reading in Colonial and Modern Latin American history. Level: Graduate

**HSTR 591 - Special Topics. 1-9 Credits.**

(R-24) Restricted to students in graduate History programs. Experimental offerings of visiting professors, experimental offerings of new courses, or one-time offerings of current topics. Level: Graduate

**HSTR 592 - Independent Study. 1-12 Credits.**

(R-12) Restricted to students in graduate History programs. Course material appropriate to the needs and objectives of the individual student. Level: Graduate

**HSTR 594 - Research Seminar. 1-12 Credits.**

(R-12) Restricted to students in graduate History programs. A review and discussion of current research. Topics vary. Level: Graduate

**HSTR 598 - Internship. 1-8 Credits.**

(R-8) Restricted to students in graduate History programs. Extended classroom experience that provides practical application of classroom learning during placements off campus. Prior approval must be obtained from the faculty supervisor. Level: Graduate

**HSTR 599 - Thesis/Professional Paper. 1-6 Credits.**

(R-6) Restricted to students in graduate History programs. Preparation of a thesis or professional paper appropriate to the needs and objectives of the individual student. Level: Graduate

**HSTR 699 - Dissertation. 1-9 Credits.**

(R-9) Restricted to students in graduate History programs. Preparation of a dissertation or manuscript based on research for presentation and/or publication. Level: Graduate

## Honors (HONR)

**HONR 120 - Introduction to Honors. 1 Credit.**

Offered autumn. Interdisciplinary offerings by various faculty. Orientation to practical and theoretical issues facing students entering college.

**HONR 121L - Ways of Knowing. 3 Credits.**

Offered autumn and spring. A critical assessment of contrasting epistemological stances expressed in various views of the divine, nature, society and the self.

Gen Ed Attributes: Literary & Artistic Studies, Writing Across the Curriculum

**HONR 122E - Ways of Knowing II. 3 Credits.**

Offered spring. Prereq., HONR 121L. This course traces the major Western ethical traditions, examines the influence of those traditions in normative political theory, and provides dramatic illustrations of the moral life.

Gen Ed Attributes: Ethical & Human Values, Democracy and Citizenship

**HONR 130 - Introduction to Pre-Law. 2 Credits.**

Offered fall. Freshman seminar for students interested in a career in the law. Introduction to the nature and possible meanings of higher education, the functions and resources of the University, and the elements of a good preparation for law school, both at the academic and non-academic levels. Weekly interactions with legal professionals.

**HONR 190 - Undergraduate Research. 1-6 Credits.**

(R-6) Independent research under the direction of a faculty member.

**HONR 191 - Special Topics. 1-6 Credits.**

(R-24) Experimental offerings of visiting professors, experimental offerings of new courses, or one time offerings of current topics.

**HONR 192 - Independent Study. 1-6 Credits.**

(R-6) Course material appropriate to the needs and objectives of the individual student.

**HONR 194 - Seminar. 1-6 Credits.**

(R-6) A review and discussion of current research. Topics vary.

**HONR 198 - Internship. 1-6 Credits.**

(R-6) Extended classroom experience that provides practical application of classroom learning during placements off campus. Prior approval must be obtained from the faculty supervisor. A maximum of 6 credits of Internship (198, 298, 398, 498) may count toward graduation.

**HONR 272 - Leadership for Social Change. 3 Credits.**

Offered spring. This service-learning course provides students with a broad overview of the social change model of leadership development through engagement with campus and community organizations. Students will examine a variety of leadership models, analyze their own capacity for ethical leadership, and develop a personal leadership philosophy and social change plan based on individual values.

**HONR 274 - Advocate Leadership Seminar. 2 Credits.**

Offered spring. Members of the university's Advocates are given responsibilities and opportunities generally reserved for paid professionals. This course teaches requisite leadership competencies, skills and articulation. Advocates develop situational decision-making and will be assessed through traditional letter grade and interactive skill evaluation.

**HONR 291 - Special Topics. 1-6 Credits.**

(R-24) Experimental offerings of visiting professors, experimental offerings of new courses, or one time offerings of current topics.

**HONR 294 - Seminar. 1-6 Credits.**

(R-6) A review and discussion of current research. Topics vary.

**HONR 298 - Internship. 1-6 Credits.**

(R-6) Extended classroom experience that provides practical application of classroom learning during placements off campus. Prior approval must be obtained from the faculty supervisor. A maximum of 6 credits of Internship (198, 298, 398, 498) may count toward graduation.

**HONR 320E - Art of Inquiry: Research and Capstone Seminar. 3 Credits.**

Offered autumn and spring. Designed to assist undergraduate students with their independent research projects. This seminar enables students conducting research in separate disciplines to apply the intellectual strategies and to explore the ethical concerns common to research in most disciplines.

Gen Ed Attributes: Ethical & Human Values

**HONR 370 - Pre-Law Seminar. 2 Credits.**

Offered autumn. This course gives students specific information about the law school application process, the life of a law student, and various careers in the law. Students will have unique opportunities to interact with legal professionals and law school admission officers to explore their futures in law school and the legal profession.

**HONR 390 - Undergraduate Research. 1-6 Credits.**

(R-6) Independent research under the direction of a faculty member.

**HONR 391 - Special Topics. 1-6 Credits.**

(R-24) Experimental offerings of visiting professors, experimental offerings of new courses, or one-time offerings of current topics.

**HONR 392 - Independent Study. 1-6 Credits.**

(R-6) Offered intermittently. Prereq., consent of instr. Course material appropriate to the needs and objectives of the individual student.

**HONR 394 - Interdisciplinary Colloquium. 1-6 Credits.**

(R-6) A review and discussion of current research. Topics vary.



**HONR 395 - Practicum. 1-6 Credits.**

(R-6) Prereq., consent of instr. Course material appropriate to the needs and objectives of the individual student.

**HONR 398 - Internship. 1-6 Credits.**

Prereq., consent of instr. Practical application of classroom learning during placements off campus. A maximum of 6 credits of Internship (198, 298, 398, 498) may count toward graduation.

**HONR 491 - Special Topics. 1-6 Credits.**

(R-24) Experimental offerings of visiting professors, experimental offerings of new courses, or one time offerings of current topics. Level: Undergraduate-Graduate

**HONR 492 - Independent Study. 1-6 Credits.**

(R-6) Course material appropriate to the needs and objectives of the individual student. Level: Undergraduate-Graduate

**HONR 494 - Senior Seminar. 1-6 Credits.**

(R-6) A review and discussion of current research. Topics vary. Level: Undergraduate-Graduate

**HONR 495 - Practicum. 1-6 Credits.**

(R-6) Supervised, practical experience in a professional setting relevant to the student's field of study. Level: Undergraduate-Graduate

**HONR 498 - Internship. 1-6 Credits.**

(R-6) Extended classroom experience that provides practical application of classroom learning during placements off campus. Prior approval must be obtained from the faculty supervisor. A maximum of 6 credits of Internship (198, 298, 398, 498) may count toward graduation. Level: Undergraduate

**HONR 499 - Honors Thesis/Project. 1-9 Credits.**

(R-9) Preparation of an undergraduate thesis or manuscript based on research for presentation and/or publication. Level: Undergraduate

## Hospitality, Tourism, & Recreation (HTR)

**HTR 107 - Introduction to Hospitality Management. 3 Credits.**

Offered autumn. Offered at Missoula College. Restricted to students in the Big Sky Culinary Institute programs. This course introduces students with an overview of the businesses in the hospitality industry, including hotel/lodging, restaurant, and travel/tourism. The course provides the history, present factors, and future trends that will affect the hospitality industry, as well as introductory practices in marketing, operations, economics, technology, and customer service.

**HTR 201 - Hotel Management and Operations. 3 Credits.**

Offered spring. Offered at Missoula College. Restricted to students in the Big Sky Culinary Institute programs. This course introduces students to the different management responsibilities within hotel and lodging operations. Students receive instruction on the responsibilities and requirements of management in the areas of front desk management, security/maintenance, housekeeping, administration, and food/beverage.

**HTR 298 - Internship. 4 Credits.**

Offered at Missoula College. Restricted to students in the Big Sky Culinary Institute programs. This course provides students with the opportunity to gain practical experience in the hospitality industry. Students will secure a position in one of the areas of the hospitality industry and work at least 180 hours. Students will also gain knowledge in how to properly and effectively prepare a resume, cover letter, and for a job interview. The internship will culminate in a portfolio of their accomplishments as well as a paper detailing the knowledge gained from the experience in reference to their job outcomes and goals.

## Human and Family Development (HFD)

**HFD 298 - Internship. 1-4 Credits.**

(R-6) Extended classroom experience that provides practical application of classroom learning during placements off campus. Prior approval must be obtained from the faculty supervisor. A maximum of 6 credits of Internship (198, 298, 398, 498) may count toward graduation.

**HFD 398 - Internship. 1-4 Credits.**

(R-6) Extended classroom experience that provides practical application of classroom learning during placements off campus. Prior approval must be obtained from the faculty supervisor. A maximum of 6 credits of Internship (198, 298, 398, 498) may count toward graduation.

**HFD 494 - Seminar in Human Development. 1-3 Credits.**

(R-3) Offered autumn. Discussion of selected problems in human development. Emphasis on integrating theory and practice. Level: Undergraduate-Graduate

**HFD 495 - Practicum in Human Development. 1-6 Credits.**

(R-6) Offered intermittently. Supervised fieldwork in settings relevant to developmental topics, including school classrooms; child/family welfare agencies; various institutions and programs for children, juveniles, or the aged. Level: Undergraduate-Graduate

**HFD 498 - Internship. 1-6 Credits.**

(R-6) Extended classroom experience that provides practical application of classroom learning during placements off campus. Prior approval must be obtained from the faculty supervisor. A maximum of 6 credits of Internship (198, 298, 398, 498) may count toward graduation. Level: Undergraduate-Graduate

## Human Medicine (HMED)

**HMED 140 - Introduction to Health Professions. 2 Credits.**

This course will enhance students' understanding of how to prepare for, and how to be successful in, medical school, physician assistant school, dental school, or veterinary school as well as provide them with specific information concerning careers in medicine. Students will gain practical insight and have the unique opportunity to interact with medical professionals and pre-medical advisors and admissions officers to explore their futures in medical school or in a health profession. The main goal of the course is to help students to make a well-informed and appropriately self-aware decision about whether or not, and if yes why, a career in medicine is the professional path that best suits their personality traits, their academic strengths and weaknesses, their core values, and life interests. This course is open to all undergraduates and post-baccalaureate students interested in the topics here.

**HMED 191 - Special Topics. 1-6 Credits.**

(R-6) Offered intermittently. Experimental offerings of visiting professors, experimental offerings of new courses, or one-time offerings of current topics.

**HMED 391 - Special Topics. 1-12 Credits.**

(R-12) Offered intermittently. Experimental offerings of visiting professors, experimental offerings of new courses, or one-time offerings of current topics.

## Information Technology Systems (ITS)

**ITS 130 - Cybersecurity Essentials. 3 Credits.**

The Cybersecurity Essentials course develops foundational understanding of cybersecurity and how it relates to information and network security. This course introduces students to characteristics of cybercrime, security principles, technologies, and procedures to defend networks. The course is presented using interactive multimedia content, lab activities using network simulators and virtual machines, and multi-industry case studies.

**ITS 150 - CCNA 1: Exploration. 3 Credits.**

Offered autumn and spring. Offered at Missoula College. Introduction to networking field including terminology; protocols; local-area and wide-area networks; the OSI model; topologies; IP addressing; cabling and cabling tools; routers and router programming. Ethernet and network standards; and wireless technologies.

**ITS 152 - CCNA 2: Exploration. 3 Credits.**

Offered autumn. Offered at Missoula College. Prereq., ITS 150. Covers router theory and technologies including configurations, IOS software management, routine protocol configuration, TCP/IP, access-lists and introduction to LAN switching.

**ITS 165 - Introduction to Operating Systems and the Command Line. 3 Credits.**

Offered autumn. Offered at Missoula College. Introduction to operating system concepts through the use of contemporary software. Emphasizes interaction with the operating system through the command interpreter and shell-type scripts. Will explore multiple operating systems through a variety of modalities including virtual operating systems.

**ITS 191 - Special Topics. 1-6 Credits.**

(R-6) Offered intermittently. Offered at Missoula College. Experimental offerings of visiting professors, experimental offerings of new courses, or one-time offerings of current topics.

**ITS 210 - Network OS - Desktop. 3 Credits.**

Offered spring. Offered at Missoula College. Prereq., ITS 150. This class provides in-depth study of a secure, multi-user, client-based network operating system. Topics include installation, administration of resources, performance, network services, and security.

**ITS 212 - Network OS - Server Administration. 3 Credits.**

Offered autumn. Offered at Missoula College. This course covers server technologies commonly used in local area networking. Topics include installation, administration, storage, application services, network services, security, reliability, and availability.

**ITS 214 - Network OS - Infrastructure. 3 Credits.**

Offered autumn. Offered at Missoula College. Prereq., ITS 212. Principles and implementation of enterprise networking services. Topics include Protocol Binding, DNS, DHCP, WINS, Remote Access, IP Routing, IP Security, Network Address Translation, and Certificate Services.

**ITS 221 - Project Management. 3 Credits.**

Offered autumn. Offered at Missoula College. Prereq., CSCI 172. Investigation of topics in project management including scope, definition, risk, procurement and the RFP, management of time, cost, quality, and human resources. Concepts are reinforced with PM software.

**ITS 222 - Enterprise Security. 3 Credits.**

Offered spring. Examination of general information technology security concepts. Topics include access control, authentication, attack methods, remote access, web security, wireless networks, cryptography, internal infrastructure security, and external attacks. Security procedures, organizational policies, risk management and disaster recovery addressed.

**ITS 233 - Introduction to DevOps. 3 Credits.**

Offered spring. Prereq., CSCI 150. DevOps is the art of automation and Infrastructure as Code (IaC) used to build powerful, dynamic, systems. This course will explore DevOps using scripting, Application to Programmer Interface (API) libraries, and a variety of tools to automate and administer local, remote, and virtual systems.

**ITS 250 - CCNA 3: Exploration. 3 Credits.**

Offered spring. Offered at Missoula College. Prereq., ITS 152. Covers router configurations including advanced IP addressing techniques, variable length subnet masking, intermediate routing protocols, Ethernet switching, virtual LANs, spanning-tree protocol, and VLAN trunking protocol.

**ITS 252 - CCNA 4: Exploration. 3 Credits.**

Offered at Missoula College. Prereq., ITS 152. Project-based course in wide-area networking including advanced IP addressing techniques, network address translation, port address translation, DHCP, WAN technology and terminology, PPP, ISDN, DDR, Frame Relay, network management, and introduction to optical networking.

**ITS 271 - Securing Desktop/Mobile Development. 4 Credits.**

Offered at Missoula College. Course provides advanced technical information and relevant skills to successfully secure end-user devices, including desktop and laptop systems, tablets, cellular phones, and other portable computing equipment. Building on existing knowledge and skills in the areas of server management, network management, and security, students will gain mastery-level knowledge of security issues and best practices. Course content covers client/server exposures and protections (authentication options, packet signing and encryption of network traffic, appropriate implementation of permissions and rights); malware threats and treatments; transmission choices and precautions (wired, wireless, remote desktop access, virtual private networking (VPN)); cloud computing considerations; and corporate mobile device best practices. Hardening of the operating system and application software is also covered. Course content will focus on business-focused security practices to prepare students for Security +, CISSP, and Security Pro industry certifications. Prerequisite Skills: Course builds upon established skills in security, server management, and network management. Students should be working as a network manager or have completed appropriate skills-based coursework using MS Server 2008/2012 & Mware.

**ITS 273 - Securing Networks. 4 Credits.**

Offered at Missoula College. Course provides advanced technical information and relevant skills to secure servers and business information. Building on existing knowledge and skills in the areas of server management, network management, and security, students will gain mastery-level knowledge of security issues and best practices. Students will examine and apply hardening techniques to operating systems and infrastructure-based applications. Strategies to ensure business continuity and data security are emphasized, including policy, data preservation, disaster preparedness, and disaster recovery. Legal guidelines and requirements, both domestic and international, are examined in the context of responsible and ethical computer use. Course content will focus on business-focused security practices to prepare students for the Security+, CISSP, and Security Pro industry certifications. Prerequisite Skills: Course builds upon established skills in security, server management, and network management. Students should be working as a network manager or have completed appropriate skills-based coursework using MS Server 2008/2012 & Mware.

**ITS 274 - Ethical Hacking and Network Defense. 3 Credits.**

Prereq., ITS 152 and ITS 212. This course will provide students the skills to analyze and defend network and computer resources. The course will combine knowledge and skills from programming, networking, and operating systems and leverage those skills for enumerating and securing networks. An emphasis is placed on scenario-based and exploratory learning.

**ITS 279 - Cloud Systems. 3 Credits.**

Offered Spring. Offered at Missoula College. This course will introduce the student to the creation, use, and administration of cloud-based resources. The course will survey cloud terminology and concepts, examine use-cases and models, examine oversight and security concerns, and consider financial implications and governance. The student will engage in creation, use, and administration of cloud services as well as exploration of virtualization resources.

**ITS 280 - Computer Repair & Maintenance. 3 Credits.**

Offered spring. Offered at Missoula College. This course provides an in-depth study of personal computer hardware with focus on field replaceable units (FRU's). Topics include: system boards, processors, storage devices, I/O ports, cabling, power supplies, multimedia devices, printers, and troubleshooting.

**ITS 289 - Professional Certification. 1 Credit.**

(R-4) Offered autumn. Offered at Missoula College. Prereq., ITS 280. Review objectives of an information technology industry-based professional certification. A thorough review of certification objective, preparation strategies, and exam strategies will be covered. Course can be repeated for different industry-based professional certifications.

**ITS 290 - Undergraduate Research. 1-6 Credits.**

(R-6) Offered at Missoula College. Independent research under the direction of a faculty member. Graded credit/no credit.

**ITS 291 - Special Topics. 1-6 Credits.**

(R-6) Offered intermittently. Offered at Missoula College. Experimental offerings of visiting professors, experimental offerings of new courses, or one time offerings of current topics.

**ITS 292 - Independent Study. 1-6 Credits.**

(R-6) Offered intermittently. Offered at Missoula College. Course material appropriate to the needs and objectives of the individual student.

**ITS 294 - Seminar. 1-6 Credits.**

(R-6) Offered intermittently. Offered at Missoula College. A review and discussion of current research. Topics vary.

**ITS 298 - Internship/Cooperative Education. 2 Credits.**

Offered autumn and spring. Offered at Missoula College. Restricted to students in Information Technology & Cybersecurity. On-the-job training in positions requiring advanced computer competencies. This experience increases students' skills, prepares them for initial employment, and increases occupational awareness and professionalism. Students work a minimum of six hours each week at an approved site and attend a scheduled one-hour seminar. Offered for CR/NCR grading only.

## International Development Studies (IDS)

**IDS 191 - Special Topics. 1-6 Credits.**

(R-6) Offered intermittently. Experimental offerings of visiting professors, experimental offerings of new courses, or one-time offerings of current topics.

**IDS 392 - Independent Study. 1-9 Credits.**

(R-9) Course material appropriate to the needs and objectives of the individual student.

**IDS 398 - Internship. 1-6 Credits.**

(R-6) Offered every term. Extended classroom experience that provides practical application of classroom learning during placements off campus. Prior approval must be obtained from the faculty supervisor. A maximum of 6 credits of Internship (198, 298, 398, 498) may count toward graduation.

**IDS 490 - Research. 3 Credits.**

This course is designed to enhance the participants' understanding of important methods used in the evaluation of international development programs. The toolkit of a student completing this course will include knowledge of basic methods and standard systems used worldwide for conducting such evaluations. You will learn how to design, conduct, report on and orally present your findings as if you are speaking to a group of donors, project planners or other stakeholders. Level: Undergraduate-Graduate

**IDS 491 - Special Topics. 1-6 Credits.**

(R-6) Offered intermittently. Experimental offerings of visiting professors, experimental offerings of new courses, or one-time offerings of current topics. Level: Undergraduate-Graduate

**IDS 497 - Monitoring and Evaluation in International Development. 1-6 Credits.**

Course is designed to enhance the participants' understanding of important methods used in the evaluation of international development programs. The toolkit of a student completing this course will include knowledge of basic methods and standard systems used worldwide for conducting such evaluations. You will learn how to design, conduct, report on and orally present your findings as if you are speaking to a group of donors, project planners or other stakeholders. You will study how to derive important monitoring and evaluation questions from existing literature, how to aim for specific professional outcomes such as the generation of a professional talk, poster, or paper, and the steps required along the way to get you to those outcomes. Survey design, identification and definition of critical M&E variables, predicting required analyses of those variables, LogFrame, Social Frameworks, and CapacityWORKS will be taught in this class. Level: Undergraduate-Graduate

**IDS 591 - Special Topics. 1-6 Credits.**

(R-6) Offered intermittently. Experimental offerings of visiting professors, experimental offerings of new courses, or one-time offerings of current topics.

## Irish (IRSH)

**IRSH 101 - Elementary Irish. 4 Credits.**

Offered autumn or spring. This course represents an introduction to modern Irish in both its spoken and written forms. The basic principles of grammar and sentence structure are covered. Emphasis is placed on the application of these principles in every-day situations.

**IRSH 102 - Elementary Irish II. 4 Credits.**

Offered autumn or spring. Prereq., IRSH 101. The primary objective of this course is to build on the foundations laid in Elementary Irish I. Students will expand their vocabulary with a special focus on verbs; they will also engage new themes that demand a corresponding increase in their store of nouns, adjectives, idioms and expressions. Students will also learn more songs and poems from the Irish tradition and thus increase their idiomatic and syntactical knowledge of the language.

Gen Ed Attributes: Language Requirement

**IRSH 201 - Intermediate Irish I. 4 Credits.**

Offered spring semester. Students will continue their study of the verbs, engage more complex syntax and grammatical constructions, and consult the prose and poetry of the written and oral literary traditions.

Gen Ed Attributes: Language Requirement

**IRSH 202 - Intermediate Irish II. 4 Credits.**

Offered fall semester. Prereq., IRSH 201. Students will expand their knowledge of Irish language verbs, study the five declensions of the nouns, and acquire the vocabulary and language necessary to engage more abstract ideas and topical issues on an intellectual level.

Gen Ed Attributes: Language Requirement

**IRSH 249 - The Irish. 3 Credits.****IRSH 250 - An Introduction to Irish Gaelic Literature. 3 Credits.**

Offered every other autumn. This course will introduce students to the riches and delights of the literary tradition of Gaelic Ireland from the earliest times down to the Great Famine. Consulting texts in translation, students will read stories from the Heroic Literature of Ireland; they will learn of the impact of Christianity, the Viking Raids, the Norman invasion and the Tudor conquest on the canons of Irish literature.

**IRSH 255 - From Warrior Training to National Sport: a History of Hurling. 3 Credits.**

Offered every other spring. Unlike most modern sports, the Irish game of hurling is a very ancient game, going back, some scholars suspect over 3,000 years. This course will examine the history of the game; its place in the literature of Ireland; and role of hurling clubs in the creation of young rebels who would go out to fight for Irish freedom. This course will be of particular interest to students at UM as the UM hurling team has won four out of the past five USA national championships.

**IRSH 265 - From Bulls to Bullets: the Course of Irish History. 3 Credits.**

Offered every other spring. This course surveys the history of Ireland and the Irish, from the enduring myths and legends of the island's first inhabitants where the potent social and political representation of the Bull was used to demonstrate power, to the bullets and bombs that defined the lives of many in the northern part of the country in the twentieth century. Like any place, Ireland has a complicated and complex history, where many different groups coalesced and divided along social, economic and political grounds.

**IRSH 291 - Special Topics. 1-4 Credits.**

(R-4) Experimental offerings of visiting professors, experimental offerings of new courses, or one-time offerings of current topics.

**IRSH 292 - Independent Study. 1-3 Credits.**

(R-6) Course material appropriate to the needs and objectives of the individual student.

**IRSH 345L - Literature in the Irish Lang. 3 Credits.**

Offered intermittently. This course acknowledges Irish as the oldest documented vernacular in Europe and its literature as a voice that is over 1500 years old. Examines the literary response of Gaelic Ireland to invasion, conquest, and colonization as articulated by its literature.

Gen Ed Attributes: Literary & Artistic Studies

**IRSH 350 - The Literature of pre-Norman Ireland. 3 Credits.**

Offered every other autumn. The objective of this course is to locate and examine Irish Gaelic literature of the pre-Norman period in the context of the native tradition and universal Church literature, to explore the ways in which the monks redacted ancient tales to achieve consensus for the new dispensation, and to analyze the impact of Christian culture on the canons of Irish literature.

**IRSH 355 - The Politics of Culture: Irish America, the Gaelic Revival, and the Easter Rising. 3 Credits.**

Offered every other spring. This course will examine the origins and formulation of this new vision, the Gaelic revival in Ireland and America, and at the role of Irish America in the formation of modern Irish identity and the achievement of an independent Irish republic.

**IRSH 365 - Ireland and America in the Age of Enlightenment and Revolution. 3 Credits.**

Offered every other autumn. A number of ideas, circumstances and events tended to unite individuals and groups in eighteenth-century Ireland with colonists in British North America. This course examines the connections and events that shaped these opinions. The course begins by looking at the 'Atlantic world' which brought people in Ireland, Britain and America closer through trade and emigration.

**IRSH 370 - The Irish Conflict: 1968-1998. 3 Credits.**

Offered every other autumn. This course examines the evolution, nature and context of the chronic civil and political unrest that erupted in the North of Ireland in 1968. When a civil rights movement aimed at securing such modest demands as 'one man, one vote' met with vehement state resistance, Ireland was pitched into the most sustained political violence in post-World War Two Western Europe. The longest deployment of the British Army in history failed to contain the most sophisticated insurgency ever known. O'Donnell will identify and explain the major political forces in play; not least the agendas of all major combatants. Account will be taken of the international dimension of the 'Long War', including the role of both private and state actors in the USA. Students of this course will receive a comprehensive overview of an inter-generational conflict from its inception to the seismic Good Friday Agreement of 1998 which resulted in all major forces adopting purely political modes of contest. Printed primary, manuscript and online resources will be utilized on a case study basis. Subthemes include political propaganda; tactics and strategy of the Irish Republican Army; hungerstriking; counterinsurgency; 'The Dirty War'; justice and the law and 'peace processes'. On completion students will be well situated to pursue high level courses in programmes concerned with political science; military studies and jurisprudence.



**IRSH 375 - The Irish and their Language. 3 Credits.**

Offered every other spring. This course will examine the fortunes of the language from the earliest records to the present day. Students will consult the native record as well as the writings of the English invader. Their study will include an examination of the language and the worldview it presented - a worldview at variance with that of the English. They will learn about the role of the Irish of America in the movement to preserve and revive the language; and they will come to understand how the language we use not only unites us as a group, but also provides a philosophical foundation for our understand of the world.

**IRSH 380 - Topics in Irish Studies. 3 Credits.**

Offered intermittently. A rotating variety of special topics in Irish Studies, including Irish and Irish-American cinema, major Irish/N. Irish authors, Irish cultural studies, and transatlantic and comparative studies.

Gen Ed Attributes: Writing Across the Curriculum

**IRSH 381 - Contemporary Irish Women's Writing. 3 Credits.**

Offered every other spring semester. This course is designed to provide students with the rhetorical knowledge and cultural perspectives necessary to be successful writers at the college-level and more specifically within the field of Irish Studies. This course emphasizes the importance of critical thinking, reading, and composing in an academic context. To do this, students will explore research practices within the field of Irish Studies and related disciplines (such as feminist rhetorical practices, women's and gender studies, and postcolonial studies) and successful composing methods to bring these insights to the page. Students will expand their purview by examining the literary, historical, national, and gender contexts for interpreting Irish texts.

Gen Ed Attributes: Writing Across the Curriculum

**IRSH 382 - Rockin' Rebels: Popular Irish Music from Traditional to Punk. 3 Credits.**

Offered every other spring semester. This course explores the concept of Irishness through generative works of music by artists such as Seán Ó Riada, The Wolf Tones, The Pogues, Sinéad O'Connor, U2, The Cranberries, Méav Ní Mhaolchatha, and Soulé (not an exhaustive list). To do this the class will begin with an examination of traditional Irish music as a cultural form. Next, we will move through genres and decades charting political and cultural shifts as represented in folk, rebel, rock, punk, and pop music. We will explore concerns of authenticity and hybridity in Irish popular music and apply theoretical ways of understanding the reproduction and marketing of Irishness in a global context.

Gen Ed Attributes: Writing Across the Curriculum

**IRSH 391 - Special topics. 1-6 Credits.**

(R-9) Offered intermittently. Experimental offerings of visiting professors, new courses, or one-time offerings of current topics;

**IRSH 398 - Internship. 1-6 Credits.**

Extended classroom experience that provides practical application of classroom learning during placements off campus. Prior approval must be obtained from the faculty supervisor. A maximum of 6 credits of Internship (198, 298, 398, 498) may count toward graduation.

**IRSH 490 - Research. 1-9 Credits.**

(R-9) Independent research under the direction of a faculty member. Level: Undergraduate-Graduate

**IRSH 491 - Special Topics. 1-3 Credits.**

Experimental offerings of visiting professors, experimental offerings of new courses, or one-time offerings of current topics. Level: Undergraduate-Graduate

**IRSH 492 - Independent Study. 1-3 Credits.**

(R-9) Offered intermittently. Course material appropriate to the needs and objectives of the individual student. Level: Undergraduate-Graduate

**IRSH 498 - Internship. 1-6 Credits.**

(R-6) Extended classroom experience that provides practical application of classroom learning during placements off campus. Prior approval must be obtained from the faculty supervisor. A maximum of 6 credits of Internship (198, 298, 398, 498) may count toward graduation. Level: Undergraduate-Graduate

## Italian (ITLN)

**ITLN 101 - Elementary Italian I. 4 Credits.**

Offered autumn. An introduction to Italian language and culture, with emphasis on the skills of reading, writing, comprehension, and speaking.

**ITLN 102 - Elementary Italian II. 4 Credits.**

Prereq., ITLN 101. A continuation of ITLN 101.

Gen Ed Attributes: Language Requirement

**ITLN 191 - Special Topics. 1-9 Credits.**

(R-9) Offered intermittently. Experimental offerings of visiting professors, experimental offerings of new courses, or one-time offerings of current topics.

**ITLN 201 - Intermediate Italian I. 4 Credits.**

Prereq., ITLN 102. Expansion of active skills: listening, speaking, reading, writing, plus further cultural analysis.

**ITLN 202 - Intermediate Italian II. 4 Credits.**

Prereq., ITLN 201. Continuation of ITLN 201.

**ITLN 291 - Special Topics. 1-9 Credits.**

(R-9) Offered intermittently. Experimental offerings of visiting professors, experimental offerings of new courses, or one-time offerings of current topics.

**ITLN 391 - Special Topics. 1-9 Credits.**

(R-9) Offered intermittently. Experimental offerings of visiting professors, experimental offerings of new courses, or one-time offerings of current topics.

**ITLN 491 - Special Topics. 1-9 Credits.**

(R-9) Offered intermittently. Experimental offerings of visiting professors, experimental offerings of new courses, or one-time offerings of current topics. Level: Undergraduate-Graduate

## Japanese (JPNS)

**JPNS 101 - Elementary Japanese I. 5 Credits.**

Offered autumn. Understanding of grammar and basic sentence structures are taught as a foundation for oral comprehension. The students will learn Hiragana and Katakana, two syllabic writing systems, and approximately 400 Kanji ideographs.

**JPNS 102 - Elementary Japanese II. 5 Credits.**

Offered spring. Prereq., JPNS 101. Continuation of JPNS 101.

Gen Ed Attributes: Language Requirement

**JPNS 150H - Japanese Culture & Civilization. 3 Credits.**

Offered intermittently. The historical, religious, artistic, literary and social developments in Japan from earliest times to the present.

Gen Ed Attributes: Historical Studies, Cultural & International Diversity



**JPNS 191 - Special Topics. 1-9 Credits.**

(R-9) Offered spring. Experimental offerings of visiting professors, experimental offerings of new courses, or one-time offerings of current topics.

**JPNS 201 - Intermediate Japanese I. 5 Credits.**

Offered autumn. Prereq., JPNS 102. Reading and writing kanji and building oral/aural fluency.

Gen Ed Attributes: Language Requirement

**JPNS 202 - Intermediate Japanese II. 5 Credits.**

Offered spring. Prereq., JPNS 201. Continuation of JPNS 201.

Gen Ed Attributes: Language Requirement

**JPNS 291 - Special Topics. 1-9 Credits.**

(R-9) Offered intermittently. Experimental offerings of visiting professors, experimental offerings of new courses, or one-time offerings of current topics.

**JPNS 292 - Independent Study. 1-6 Credits.**

(R-6) Offered autumn and spring. Course material appropriate to the needs and objectives of the individual student.

**JPNS 301 - Advanced Japanese. 3 Credits.**

Prereq., JPNS 202. Development of greater reading and speaking proficiency. Vocabulary enhancement and kanji (Chinese characters) are emphasized.

Gen Ed Attributes: Language Requirement

**JPNS 302 - Advanced Japanese. 3 Credits.**

Prereq., JPNS 301. Continuation of JPNS 301.

Gen Ed Attributes: Language Requirement

**JPNS 306 - Japanese for Business and Tourism. 3 Credits.**

Offered autumn alternate years. Prereq., JPNS 202. Vocabulary and idiom of oral and written communication in business and tourism. Professional, ethical practices, and special etiquette.

**JPNS 312L - Japanese Literature: Medieval to Modern. 3 Credits.**

Offered spring alternate years. Prereq., WRIT 101 or WRIT 201.

Introduction to the literature of Japan from the 15th to the 20th century.

Gen Ed Attributes: Literary & Artistic Studies, Writing in the Disciplines

**JPNS 371 - Japanese Film and Anime. 3 Credits.**

This course introduces students to salient events in the hundred-year history of Japanese cinema, including the age of silent film, the golden age of film directors, the New Wave, and contemporary Japanese cinema. Students will learn about Japanese cinema as the artistic expression of individual directors; they will gain a better understanding of the history of Japanese society and popular culture; and they will appreciate some of the reasons for the long-standing interest in Japan in the history of Western film studies.

**JPNS 390 - Research. 1-12 Credits.**

Offered intermittently. Paid work experience in Japan, combined with language/culture course work by correspondence directed by UM department staff.

**JPNS 391 - Special Topics. 1-12 Credits.**

(R-12) Offered intermittently. Experimental offerings of visiting professors, experimental offerings of new courses, or one-time offerings of current topics.

**JPNS 392 - Independent Study. 1-6 Credits.**

(R-12) Offered autumn and spring. Course material appropriate to the needs and objectives of the individual student.

**JPNS 395 - Practicum. 1-12 Credits.**

(R-12) Offered intermittently. Supervised, practical experience in a professional setting relevant to the student's field of study.

**JPNS 398 - Internship. 1-6 Credits.**

Offered intermittently. Extended classroom experience that provides practical application of classroom learning during placements off campus. Prior approval must be obtained from the faculty supervisor. A maximum of 6 credits of Internship (198, 298, 398, 498) may count toward graduation.

**JPNS 411 - Modern Japanese Writers and Thinkers. 3 Credits.**

(R-6) Offered autumn or spring. Prereq., JPNS 202. Introduction to the important writers, thinkers, and poets of the 20th century. Readings include a wide range of topics in the humanities, including literature, philosophy, and the arts. Level: Undergraduate-Graduate

**JPNS 412 - Introduction to Classical Japanese. 3 Credits.**

Offered intermittently. Prereq., JPNS 202. Introduction to the language of the Japanese court, ca. 7th to 14th century. Essential features of grammar, sentence structure, vocabulary, and orthography. Level: Undergraduate-Graduate

**JPNS 415 - Advanced Japanese for Professionals. 3 Credits.**

Offered spring even-numbered years. Prereq., JPNS 202. A high-level professional language course covering all coordinated reading, writing, and speaking skills. Intended for majors hoping to enter the Japanese job market and prepare for professional testing in Japan. Level: Undergraduate-Graduate

**JPNS 431 - Post-War Japanese Literature. 3 Credits.**

Offered spring odd-numbered years. Introduction to issues, literature, and criticism of Japanese literature from the postwar (1945) through the contemporary period, using texts in English translation. Level: Undergraduate-Graduate

**JPNS 491 - Special Topics. 1-9 Credits.**

(R-9) Offered intermittently. Experimental offerings of visiting professors, experimental offerings of new courses, or one-time offerings of current topics. Level: Undergraduate-Graduate

**JPNS 492 - Independent Study. 1-6 Credits.**

(R-6) Offered autumn and spring. Course material appropriate to the needs and objectives of the individual student. Level: Undergraduate-Graduate

## Journalism (JRNL)

**JRNL 100H - Journalism and American Society. 3 Credits.**

Offered autumn and spring. A survey of the history, development and role of the media in society, including newspapers, magazines, radio, television, books, the internet and social media. The course examines ethical, political, financial and other issues related to mass media. Also included is an introduction to media literacy and critical thinking about the media and its messages.

Gen Ed Attributes: Historical Studies, Democracy and Citizenship

**JRNL 102Y - Calling Bullshit. 3 Credits.**

Offered intermittently. This is a survey course about bullshit. Why is it so easy to make and so hard to combat? What are the goals of those spreading it? Why are the tools that democratizing publishing the very weapons used to spread misinformation? How do we become better consumers and producers of information? Students will learn basic critical thinking and media literacy skills to help them become smart media consumers.

Gen Ed Attributes: Democracy and Citizenship

**JRNL 105X - Global Current Events. 3 Credits.**

Offered autumn and spring. This deep-dive into the historical, cultural and political context of current news events allows every student to be "in the know" about world events.

Gen Ed Attributes: Cultural & International Diversity

**JRNL 140A - Intro Radio/Audio Storytelling. 3 Credits.**

Offered autumn. If you've ever heard a great, creative audio story on a podcast, online or on the radio, this course teaches the basic skills to pull that off. Learn the art of using sound and stories together by making them.

Gen Ed Attributes: Expressive Arts

**JRNL 170 - Writing the News. 3 Credits.**

Offered autumn and spring. Learn basic techniques and style of news writing for online, print, broadcast and social media audiences.

**JRNL 191 - Special Topics. 1-6 Credits.**

(R-6) Experimental offerings of visiting professors, experimental offerings of new courses, or one-time offerings of current topics.

**JRNL 194 - Seminar. 1-6 Credits.**

(R-6) Offered autumn and spring. This course introduces freshmen to the world of journalism and its career opportunities. It also helps them to learn, understand and take advantage of university resources, and to develop time-management and study skills.

**JRNL 257A - Beginning Video and Photojournalism. 3 Credits.**

Offered autumn and spring. This hands-on introductory course in photo and video journalism explores visual storytelling and the tools used to produce quality still photo and video narratives. Students learn the technical, aesthetic and ethical aspects of digital photography and videography through weekly assignments.

Gen Ed Attributes: Expressive Arts

**JRNL 270 - Reporting the News. 3 Credits.**

Offered fall and spring. Prereq., JRNL 170. Students learn to gather and verify information, then write and produce news stories for a variety of online, broadcast news, and mobile news media.

Gen Ed Attributes: Writing Across the Curriculum

**JRNL 291 - Special Topics. 1-6 Credits.**

(R-6) Experimental offerings of visiting professors, experimental offerings of new courses, or one-time offerings of current topics.

**JRNL 300 - First Amendment and Media Law. 3 Credits.**

Offered spring. Overview of issues related to journalism and the law. Exploration of free speech, libel, copyright, privacy, prior restraints, access and other First Amendment questions along with ethical problems peculiar to media news gathering.

**JRNL 301X - Diversity in Media. 3 Credits.**

Offered autumn. Examination of how both local and national news media portray communities of color as well as other diverse populations. Students use content produced by news outlets to discuss how journalists' personal views and professional practices affect their coverage of unfamiliar communities and cultures. Over the course of the semester, professional journalists of color are invited to discuss their own beats and how their background affects their work.

Gen Ed Attributes: Cultural & International Diversity

**JRNL 328 - Intermediate Photojournalism. 3 Credits.**

Offered autumn and spring. Prereq., JRNL 257A. Students develop technical photography skills and ability to tell stories with images. In this workshop-style course students shoot a variety of deadline assignments including sports, features, portraits, news, events, strobe photography and photo stories. Assignments may be published on local news outlets and social media platforms.

**JRNL 330 - News Editing. 3 Credits.**

Offered autumn and spring. Prereq., JRNL 270. Learn how to fix bad writing and make good writing great. This class teaches line editing and the elements of AP Style, grammar and usage. It also teaches conceptual editing, news savvy and tips for managing reporters.

**JRNL 331 - Digital and Interactive Reporting. 3 Credits.**

Offered intermittently. Prereq., JRNL 270. Students learn to produce reporting for different websites and digital news sources, with a special emphasis on using digital technologies to broaden sources for stories. Course will also explore the societal, business and ethical effects of these emerging technologies.

**JRNL 332 - Social Media and Audience. 3 Credits.**

Offered autumn. Students learn to identify different and distinct audiences and to identify specific groups and users of information. They will develop research skills and craft content for social media platforms tailored to reach and engage those audiences. Students will learn the basics of audience research and best practices for the major social media platforms.

**JRNL 340 - Intermediate Audio. 3 Credits.**

Offered autumn. Prereq., JRNL 270 and JRNL 257A. Use of audio in news, interview and feature programs. Students will research, write, gather audio and produce audio segments and programs using digital audio equipment and studios. Students work with KBGA College Radio to produce daily newscasts for live broadcast.

Gen Ed Attributes: Writing in the Disciplines

**JRNL 342 - Multimedia Sports Announcing and Writing. 3 Credits.**

Offered autumn. Students learn to research, produce and announce live sports broadcasts for audio and video audiences. They will also write preview and summary coverage for an online audience and use social media for reporting.

**JRNL 350 - Intermediate Video Photography. 3 Credits.**

Offered autumn. Prereq., JRNL 257A. Students build digital video storytelling skills while working on weekly deadline assignments as well as an in-depth final project. Students will be introduced to high-definition video cameras and advanced non-linear video editing techniques and build on photojournalism skills introduced in JRNL 257A. Students produce television segments, including Business: Made in Montana, intended to air on MontanaPBS.

**JRNL 351 - Intermediate Video Directing. 3 Credits.**

Offered spring. Prereq., JRNL 350. Students learn the fundamentals of production and directing of studio-based television/video programming. Students direct commercials, promotions and news. Students work with Intermediate Video Reporting & Producing (JRNL 352) to create and produce newscasts.

**JRNL 352 - Intermediate Video Reporting and Producing. 3 Credits.**

Offered spring. Prereq., JRNL 270 and JRNL 350. Creation of video news stories and programs including story idea generation, research and interviewing techniques, sound selection, script writing, television anchoring and producing, video photography and editing. Works with Intermediate Video Directing (JRNL 351) to create news programs.

Gen Ed Attributes: Writing in the Disciplines

**JRNL 362 - Feature Writing. 3 Credits.**

Offered autumn and spring. Prereq., JRNL 270. Take reporting and writing skills to the next level by reading, learning and writing creative and in-depth features. Adapt for journalism what you love about fiction: scenes, descriptions, arcs, character development, tension and conclusions. Satisfies the upper-division writing requirement within the major.

Gen Ed Attributes: Writing in the Disciplines

**JRNL 370 - Beat Reporting. 3 Credits.**

Offered autumn. Prereq., JRNL 270. Building on skills learned in Reporting and Elements of News Writing, students develop the necessary skill to navigate common reporting beats seen in newsrooms across the country. The course emphasizes both tenacious reporting and source development with accurate, confident writing all while under tight deadlines. Weekly assignments based on real-world reporting are commonly critiqued in-class with feedback geared toward improvement in both reporting and writing.

Gen Ed Attributes: Writing in the Disciplines

**JRNL 383L - Hollywood and the War Correspondent. 3 Credits.**

Throughout the semester, students will explore Hollywood's presentation of the war correspondent. We will view nine films from the 1940 to the present day in which the main character is a war reporter as well as non-fiction memoir and other work by war correspondents. The course aims to provide students with the critical tools to discuss and critique film and international journalism.

Gen Ed Attributes: Literary & Artistic Studies

**JRNL 384 - Documentary Film History. 3 Credits.**

Offered Spring. Examines the beginnings of non-fiction film through today. Students will gain an understanding of how the "real world" has historically been represented through film and how this may influence our current reality. Students write proposals and pitch their own ideas for a documentary film.

**JRNL 391 - Special Topics. 1-9 Credits.**

(R-9) Experimental offerings of visiting professors, experimental offerings of new courses, or one-time offerings of current topics.

**JRNL 392 - Independent Study in Broadcasting. 1-3 Credits.**

(R-6) Offered every term. Course material appropriate to the needs and objectives of the individual student in broadcasting issues of interest.

**JRNL 396 - Advanced Journalism Problems. 1-6 Credits.**

(R-6) Offered every term. Course material appropriate to the needs and objectives of the individual student in advanced journalism problems.

**JRNL 400 - Ethics & Trends in News Media. 3 Credits.**

Offered autumn and spring. Restricted to Journalism majors and minors with senior status. This course examines the challenges and opportunities facing the news media's credibility and sustainability through studying cases and trends. Level: undergraduate and graduate.

**JRNL 410 - Native News Honors Project. 1-6 Credits.**

(R-6) Offered spring. Prereq., JRNL 270. In this professional publications class students research, report, write, and design stories about Montana's Native American communities. Students travel to Montana's Indian reservations to document in-depth stories under a single theme and produce a newspaper and a multimedia website. Students meet strict deadlines in this capstone course. Satisfies Capstone requirement. Level: Undergraduate

**JRNL 411 - Reporting Native News. 1-6 Credits.**

Offered spring. Prereq., JRNL 270. In this professional publications class students research, report, write, and design stories about Montana's Native American communities. Students travel to Montana's seven Indian reservations to document in-depth stories under a single theme and produce a newspaper and a multimedia website. Students meet strict deadlines in this capstone course. Level: Undergraduate

**JRNL 412 - Magazine Production and Design. 1-6 Credits.**

(R-6) Offered autumn. In this capstone course, students produce a journalistic print and online magazine. The staff includes editors, art director, writers, photographers, videographers, print and web designers and a social media team. Co-convenes with JRNL 640. Level: Undergraduate

**JRNL 414 - Investigations. 3 Credits.**

Offered autumn. Prereq., JRNL 270. Learn how to hold powerful people and institutions accountable. This class teaches students how to report on crime, corruption and malfeasance of all types. Included are techniques for developing deep sources and digging through data to uncover stories that have impact. Level: Undergraduate-Graduate

**JRNL 427 - Advanced Photo & Multimedia Storytelling. 3 Credits.**

Offered spring. Prereq., JRNL 328. In this advanced course in photojournalism, students learn to research, shoot and edit photo stories. They hone their photography skills and vision, while working on several long-term projects, geared toward newspaper, magazine and online publications. Students learn multimedia techniques to enhance their photo stories with writing, video, audio, graphics and social media. Level: Undergraduate-Graduate

**JRNL 428 - Freelance Photography. 3 Credits.**

Offered autumn. Prereq., JRNL 328. This workshop-style class centers on editorial, commercial and retail photography. Students work on-location and in the photo studio. Students produce adventure portraiture, astrophotography, music/concert photography, product and food illustrations, fashion projects and travel stories. The course covers copyright, contracts, branding/promotion, pricing, stock and assignment photography, licensing, negotiation and the cost of doing business as a freelance photographer. Level: Undergraduate-Graduate

**JRNL 430 - Print & Web Editing & Design. 3 Credits.**

Offered spring. Introduction to basic graphic design principles including visual hierarchy, typography and color. Students will develop visual design skills as they create logos, resumes, informational graphics, concert and movie posters, book covers, newspaper front pages, magazines and websites. Students learn Adobe InDesign, Adobe Illustrator and content management systems. Level: Undergraduate-Graduate

**JRNL 433 - Marketing Your Work. 3 Credits.**

Offered spring. Prereq., JRNL 270. Learn how to freelance and get paid for it. Develop your big idea. Create the next media success story. This class teaches the business of freelancing including pitching stories, negotiating contracts, filing invoices and understanding taxes. It also requires students to think like an entrepreneur and create a media project. Level: Undergraduate-Graduate

**JRNL 440 - Advanced Audio. 3 Credits.**

Offered spring. Prereq., JRNL 340. This is the class to take if you're curious about exploring an audio career. You'll do creative, in-depth stories with lots of individual instruction, while learning the next-level skills required for podcasting and radio work. The class produces a professional project. This satisfies the capstone requirement. Level: Undergraduate-Graduate

**JRNL 470 - Campaign Coverage. 3 Credits.**

Offered autumn of even-numbered years. Students will provide multi-platform coverage of Montana's statewide candidates and ballot measures for a network of commercial and public news organizations. Level: Undergraduate-Graduate

**JRNL 471 - Covering the Legislature. 1-6 Credits.**

(R-6) Offered spring of odd-numbered years. Prereq., JRNL 370. Students will produce coverage of Montana's biennial legislative sessions for newspapers, broadcast stations, and the web. Level: Undergraduate-Graduate

**JRNL 472 - Opinion Writing. 3 Credits.**

Offered intermittently. Prereq., JRNL 270. Having an opinion is just the beginning to expressing it persuasively. This course teaches well-researched, well-written subjective writing with a focus on both arts criticism (movie reviews, music, books) and longform reported op-eds. Advanced level course for writers who like writing. Level: Undergraduate-Graduate

**JRNL 473 - International Reporting. 3 Credits.**

(R-9) Offered intermittently. Prereq., JRNL 270. Prepares students to report internationally and to develop global sources for local stories. History and practice of foreign correspondence. Level: Undergraduate-Graduate

**JRNL 480 - Reporting Video News. 3 Credits.**

Offered autumn. Prereq., JRNL 352. Teams of students report, write and produce weekly newscasts for online and television audiences. They get experience working on deadline as reporters, photographers, video editors, producers and anchors. Level: Undergraduate

**JRNL 481 - Advanced Video Photo and Directing. 3 Credits.**

Offered autumn. Prereq., JRNL 351. Students work as a team in a television control room to record weekly mini-newscasts for online and television audiences. They get experience working on deadline as directors. and they learn to control studio cameras, audio, graphics and video playback. Level: Undergraduate-Graduate

**JRNL 482 - Advanced Video Storytelling. 3 Credits.**

Offered autumn. Prereq., JRNL 350. Teams will generate story ideas about Montana issues, businesses and people. Students will research, write, photograph, interview, edit and create long-form video programs. The programs generated in this course are intended for air on commercial and public television stations. Level: Undergraduate-Graduate

**JRNL 484 - Daily News. 1-3 Credits.**

(R-6) Offered autumn and spring. Students will report, write, produce, anchor, direct and technical direct daily television news updates to be made available to commercial and public television stations in Montana. Level: Undergraduate-Graduate

**JRNL 488 - Student Documentary Unit. 3 Credits.**

Offered spring. Prereq., JRNL 350. In-depth examination of documentary film history and techniques and production of a video/television documentary on a topic of importance in Montana. Students will research, report, write, photograph, edit, and promote the film intended for air on public and commercial outlets. Level: Undergraduate

**JRNL 491 - Special Topics. 1-9 Credits.**

(R-9) Offered intermittently. Experimental offerings of visiting professors, experimental offerings of new courses, or one-time offerings of current topics. Level: Undergraduate-Graduate

**JRNL 494 - Pollner Seminar. 3-6 Credits.**

(R-6) Offered autumn and spring. Seminar on a topic selected by the T. Anthony Pollner Distinguished Professor. Topics will range from journalism history, ethics, practices and performance to current issues in the news media. Level: Undergraduate-Graduate

**JRNL 495 - Journalism Field Studies. 1-6 Credits.**

(R-6) Through backcountry or community travel, an experiential examination of field-based reporting skills, story structure, non-fiction writing/production skills. Includes workshop-style critique of writing and expert interviews. Offered by the Free Flow Institute. Level: Undergraduate/Graduate.

**JRNL 498 - Supervised Internship. 3 Credits.**

(R-6) Offered every term. Restricted to students with at least junior status. Students are required perform 160 hours of work for news, communications, and media organizations. They will enroll for three credits and repeat for a maximum of six credits. All internships must be pre-approved by the faculty internship supervisor. A maximum of 6 credits of Internship (198, 298, 398, 498) may count toward graduation. Level: Undergraduate-Graduate

**JRNL 499 - Capstone/Senior Thesis. 1-6 Credits.**

(R-6) Preparation of an undergraduate senior thesis or capston project. Level: Undergraduate-Graduate

**JRNL 557 - Video Essentials. 3 Credits.**

Offered autumn. This course prepares graduate students with limited or no experience with video storytelling to incorporate video into their master's projects or portfolios. Students will learn to shoot and edit video and to write for the format. Level: Graduate

**JRNL 567 - Press and Broadcast Law. 3 Credits.**

Offered spring. Examination and discussion of state and federal court cases affecting the mass media, with emphasis on First Amendment issues. Level: Graduate

**JRNL 570 - Reporting Environmental Science and Natural Resource Issues. 3 Credits.**

Offered autumn. Principles of news gathering through records, documents, meetings, observation of events, and interviewing with a focus on coverage of environmental science and natural resources. Producing news and feature accounts for broadcast, print and digital media. Perspectives on reporting standards and practices especially related to natural resource news. Level: Graduate

**JRNL 575 - Story Lab. 3 Credits.**

Offered spring. Journalism students are paired with UM researchers for a practicum on telling the stories of scientific research for a general news audience. Level: Graduate

**JRNL 590 - Methods in Journalism Research. 3 Credits.**

Directed individual research and study appropriate to the back ground and objectives of the student. Level: Graduate

**JRNL 591 - Special Topics. 1-8 Credits.**

(R-8) Offered intermittently. Experimental offerings of visiting professors, experimental offerings of new courses, or one-time offerings of current topics. Level: Graduate

**JRNL 592 - Independent Study. 3 Credits.**

(R-6) Course material appropriate to the needs and objectives of the individual student. Level: Graduate

**JRNL 594 - Seminar. 1-9 Credits.**

(R-9) Discussion and research about current journalism issues related to environmental science and natural resource journalism. Study of relevant traditional and online research methodology. Level: Graduate

**JRNL 599 - Professional Project. 1-6 Credits.**

(R-6) Offered every term. Planning, research and execution of a major project in print, photographic or broadcast journalism. Level: Graduate



**JRNL 620 - Covering Native American Issues. 3 Credits.**

Offered spring. Researching, writing, photographing and/or editing in-depth special reports on issues that affect the Indians who reside within Montana's borders. Co-convenes with JRNL 410 and JRNL 411. Level: Graduate

**JRNL 640 - Montana Journalism Review. 1-3 Credits.**

(R-6). Offered spring. Intensive laboratory experience in all phases of magazine publication, including writing, editing, layout, design, production and distribution of an annual publication of the School of Journalism. Co-convenes with JRNL 412. Level: Graduate

**JRNL 650 - Graduate Broadcast Newsroom-Editorial. 3 Credits.**

(R-6) Students fulfill all duties necessary to produce a weekly television newscast, including reporting, producing, directing, anchoring. Co-convenes with JRNL 480 and JRNL 481. Level: Graduate

**JRNL 688 - Graduate Documentary. 3 Credits.**

Offered spring. Students conceive, research, report, photograph and edit a television documentary intended for broadcast on Montana PBS. Co-convenes with JRNL 488. Level: Graduate

**JRNL 690 - Research in Journalism. 1-9 Credits.**

(R-9) Offered every term. Independent research under the direction of a faculty member. Level: Graduate

**JRNL 691 - Special Topics. 1-9 Credits.**

(R-9) Experimental offerings of visiting professors, experimental offerings of new courses, or one-time offerings of current topics.

**JRNL 692 - Independent Study. 1-6 Credits.**

Offered every semester. Course material appropriate to the needs and objectives of the individual student. Level: Graduate

**JRNL 698 - Externship. 1-3 Credits.**

(R-3) Offered every term. Prereq., JRNL 570. Practical experience working for news media and other approved businesses, agencies or organizations focused on natural resource issues, industries or scientific research. Level: Graduate

**JRNL 699 - Thesis. 1-6 Credits.**

(R-6) Offered every term. Research and writing of master's thesis. Level: Graduate

## Kinesiology (KIN)

**KIN 105 - Foundations of Exercise Science. 2 Credits.**

Provides non-major students with a foundational understanding of exercise science as applied to fitness, health/wellness through lifestyle medicine applications, and sport performance implications. Scientific applications of exercise science are designed to complement applications of many human-based sciences (e.g., anatomy/physiology), but does not necessitate prerequisite course completion. Investigation of the physiological changes and the significance of these changes as they occur during physical work, activity and exercise. Focus on basic energy, musculoskeletal, nervous, cardiovascular and respiratory systems as they relate to aerobic and anaerobic exercise. Emphasis will be placed on the response of these systems to both acute exercise, and the adaptations to chronic exercise. Credit not allowed toward exercise science degree options in Integrative Physiology and Athletic Training.

Gen Ed Attributes: Natural Science

**KIN 106 - Foundations of Exercise Science Lab. 1 Credit.**

This course is designed to immerse students in the practical application of scientific principles related to human movement and physical fitness. Lab sessions engage students in inquiry-based learning activities related to the core topics presented within the lecture section. In hands-on lab activities, students will formulate a hypothesis, design an experiment to test the hypothesis, and collect, interpret, and present the data to support their conclusions. Individual student phenotypes (e.g., propensities for success in high school athletics, or lack thereof) will be addressed according to established scientific understanding about prior sport participation may/may not be informed by current fitness outcomes. In addition, current and future health status will be examined relative to exercise and other lifestyle practices as a way of improving long-term health outcomes for preventing chronic diseases. Credit not allowed toward exercise science degree options in Integrative Physiology and Athletic Training.

Gen Ed Attributes: Natural Science Lab Course, Natural Science

**KIN 191 - Special Topics. 1-6 Credits.**

(R-6) Experimental offerings of visiting professors, experimental offerings of new courses, or one time offerings of current topics.

**KIN 201 - Basic Exercise Prescription. 3 Credits.**

Theory, principles, and practice of exercise prescription for aerobic and resistance exercise programs for health, fitness and performance.

**KIN 205 - Foundations of Integrative Physiology and Athletic Training. 3 Credits.**

An overview of the foundational principles comprising the field of Integrative Physiology, Health and Allied Health with special emphasis on the historical and philosophical foundations, and the evolution of the unity of mind/body concept. Includes an overview of program options, analysis of future directions, and career choices.

**KIN 248 - Principles Optimal Performance for Athletes. 2 Credits.**

Introduction to an optimal performance model, with focus upon specific physical, psychological, and environmental factors that contribute to human performance.

**KIN 292 - Independent Study. 1-6 Credits.**

(R-6) Course material appropriate to the needs and objectives of the individual student.

**KIN 310 - Strength Training & Cond. 2 Credits.**

This course is designed to introduce students to the fundamentals of aerobic exercise and resistance training related to health, fitness and performance. Subject matter will include, but is not limited to maximizing student involvement in the understanding of physical training and the designing of exercise programs for health (both physical and mental), fitness and performance. This course will lay a basic practical foundation for students to design training programs, understand and design programs for athletic performance and to develop the fundamental theories of training for future coaches.

**KIN 320 - Exercise Physiology. 3 Credits.**

Prereq., BIOH 370 or BIOH 211N, KIN 201; coreq., KIN 321. Investigation of the physiological changes and the significance of these changes as they occur during physical work, activity and exercise. Focus on basic energy, musculoskeletal, nervous, cardiovascular and respiratory systems as they relate to aerobic and anaerobic exercise. Emphasis will be placed on the response of these systems to both acute exercise, and the adaptations to chronic exercise. Credit not allowed toward graduate degree in the exercise science option in Health and Human Performance.



**KIN 321 - Exercise Physiology Lab. 1 Credit.**

Prereq., BIOH 370 or BIOH 211N; coreq., KIN 320. Laboratory session examining the physiological effect of the physical work, activity and exercise on the functions of the human body. Credit not allowed toward graduate degree in the exercise science option in Health and Human Performance.

**KIN 322 - Kinesiology. 3 Credits.**

Prereq., BIOH 211N or BIOH 370; coreq., KIN 323. Anatomy and kinesiology of the neuromusculoskeletal system and body cavities in relation to movement and function.

**KIN 323 - Anatomical Kinesiology Lab. 1 Credit.**

Prereq., BIOH 211N or BIOH 370; coreq., KIN 322. Anatomy and kinesiology of the neuromusculoskeletal system and body cavities in relation to movement and function.

**KIN 330 - Motor Learning and Control. 3 Credits.**

Prereq., BIOH 201N or BIOH 365. Focused on developing an understanding of the anatomy and physiology within the nervous system necessary for movement. Establishes an understanding of the basic science involved in the control of motor tasks, and uses this foundation to evaluate case studies that will focus on sport performance, clinical deficits, age-related alterations, learning of motor tasks following injury, and other motor-related tasks.

**KIN 391 - Special Topics. 1-9 Credits.**

(R-9) Offered intermittently. Experimental offerings of visiting professors, experimental offerings of new courses, or one-time offerings of current topics.

**KIN 395 - Experiential Learning in Integrative Physiology and Athletic Training. 1-3 Credits.**

Offered every term. Students will be connected with preceptors in health-related occupations. They will be positioned to observe the demands and duties of specific jobs for which they think they may be interested as future professionals.

**KIN 410 - Advanced Strength Training & Conditioning. 3 Credits.**

Prereq., KIN 320. Restricted to students with senior status. Advanced resistance and aerobic exercise testing and prescription for both healthy and clinical populations. Level: Undergraduate/Graduate

**KIN 425 - Biomechanics. 3 Credits.**

Prereq., KIN 320 & M 115 (or higher). Coreq., KIN 426. Restricted to students in Integrative Physiology or Athletic Training. Description and analysis of the fundamental principles of human movement. Includes quantitative study of the Newtonian mechanics governing biological motion and the roles of the musculo-skeletal, nervous and cardiovascular systems during human activity. Level: Undergraduate

**KIN 426 - Biomechanics and Human Movement Analysis Laboratory. 1 Credit.**

Offered spring. Coreq., KIN 425. Prereq., KIN 320 & M 115 or higher. This course develops the laboratory and analysis skills needed to measure movement of the human body, both as translation in space and movements occurring within the human body. Laboratory experiments focus on; forces applied during human physical activity, muscle contractions, material properties, human gait, motion capture and analysis, hemo- & fluid-dynamics, motor control and muscle fatigue, projectile and rotational motion. Level: Undergraduate

**KIN 440 - Sport Psychology. 3 Credits.**

Restricted to students with at least junior status. This course is focused on the historical development of sport psychology with emphasis upon the major principles and tactics of the discipline, including motivation, confidence, imagery, leadership, and team building. Level: Undergraduate/Graduate

**KIN 441 - Seminar in Sport Psychology. 3 Credits.**

Offered spring. Prereq., KIN 440. This course is designed as a capstone course for the minor in sport psychology. Through multiple case studies, writing assignments, lectures, and applied laboratory experiences, students will gain a greater understanding of sport psychology and its application in sport and performance settings. Level: Undergraduate/Graduate

**KIN 447 - Professional Writing in Integrative Physiology. 3 Credits.**

Prereq., WRIT 101 or WRIT 201. Analysis and communicative critique of literature, cinema, and other forms of popular media that contain allegorical life themes. Substantial reading, speaking and writing component. Emphasis on improving and maintaining communication skills. Level: Undergraduate  
Gen Ed Attributes: Writing in the Disciplines

**KIN 460 - ECG Assessment. 2 Credits.**

Restricted to students with at least junior status. Laboratory sessions combined with class sessions to understand electrocardiography and the assessment of electrocardiograms, both at rest and during exercise. Level: Undergraduate

**KIN 480 - Teaching Anatomy, Physiology. 4 Credits.**

(R-4) Students must have completed a human anatomy and physiology course with a minimum grade of B. Students assist in preparation and grading of demonstrations and laboratory assignments and provide laboratory instruction of undergraduate students enrolled in BIOH 201N and BIOH 211N. Students are given advanced instruction in principles of human anatomy and physiology.

**KIN 483 - Exercise Disease & Aging. 3 Credits.**

Prereq., KIN 320, KIN 321, and KIN 460. Coreq., KIN 484. Focus on guidelines for exercise testing and prescription for individuals with chronic disease including heart disease, diabetes, hypertension, arthritis, osteoporosis, elderly and pulmonary disease. Class requires 25 assigned hours of service learning. Covers material necessary for ACSM clinical certification exam when combined with KIN 201, KIN 320, KIN 321, KIN 460, and KIN 484. Level: Undergraduate

**KIN 484 - Exercise Disease & Aging Lab. 1 Credit.**

Prereq., KIN 320 and KIN 321. Coreq., KIN 483. Laboratory sessions focus on practical exercise testing and prescription for individuals with chronic disease including coronary heart disease, diabetes, hypertension, arthritis, osteoporosis, elderly and pulmonary disease; basic ECG testing and analysis. Covers material necessary for ACSM clinical certification exam when combined with KIN 201, KIN 320, KIN 321, KIN 460, and KIN 483. Level: Undergraduate/Graduate

**KIN 490 - Undergraduate Research. 1-3 Credits.**

(R-6) Independent research under the direction of a faculty member. Level: Undergraduate

**KIN 492 - Independent Study. 1-3 Credits.**

(R-6) Course material appropriate to the needs and objectives of the individual student. Level: Undergraduate

**KIN 494 - Seminar. 1-3 Credits.**

(R-9) A review and discussion of current research. Topics vary. Level: Undergraduate

**KIN 495 - Practicum in Integrative Physiology. 1-3 Credits.**

Offered every term. The purpose of this course is to help students gain professional experience working with a professional in a field related to Integrative Physiology and Athletic Training. Practicum activities can include research, laboratory work, community engagement within fitness, wellness, coaching, health, and allied health professions. Level: Undergraduate

**KIN 498 - Internship. 2-6 Credits.**

(R-6) Extended classroom experience that provides practical application of classroom learning during placements off campus. Prior approval must be obtained from the faculty supervisor. A maximum of 6 credits of Internship (198, 298, 398, 498) may count toward graduation. Level: Undergraduate

**KIN 499 - Capstone. 1-3 Credits.**

(R-6) Preparation of a senior capstone project. Level: Undergraduate

## Latin (LATN)

**LATN 101 - Elementary Latin I. 3 Credits.**

Offered autumn. This is the first course of a two-semester sequence designed to enable the student to read authors in the original Latin as soon as possible. Based upon selected texts from Plautus, Vergil, Catullus, Livy, Ovid, Tacitus, and other major authors.

**LATN 102 - Elementary Latin II. 3 Credits.**

Offered spring. Prereq., LATN 101. Continuation of LATN 101. Latin grammar, vocabulary, and readings.

Gen Ed Attributes: Language Requirement

**LATN 191 - Special Topics. 1-6 Credits.**

(R-6) Offered intermittently. Experimental offerings of visiting professors, experimental offerings of new courses, or one-time offerings of current topics.

**LATN 201 - Intermediate Latin I. 3 Credits.**

Offered autumn. Prereq., LATN 102. Selections of Latin prose from the classical period with complementary exercises in elementary composition.

Gen Ed Attributes: Language Requirement

**LATN 202 - Intermediate Latin II. 3 Credits.**

Offered spring. Prereq., LATN 201. Latin epic poetry: Vergil's Aeneid.

Gen Ed Attributes: Language Requirement

**LATN 292 - Independent Study. 1-6 Credits.**

(R-6) Offered autumn and spring. Course material appropriate to the needs and objectives of the individual student.

**LATN 311 - Major Latin Authors. 3 Credits.**

(R-18) Offered autumn and spring. Prereq., LATN 202. Plautus, Terence, Lucretius, Livy, Cicero, Vergil, Horace, Ovid, Tacitus, Juvenal, Pliny, Martial, etc.; also, Early church fathers, Medieval and Renaissance Latin. Selection to suit students' needs and interests.

**LATN 391 - Special Topics. 1-9 Credits.**

(R-9) Offered intermittently. Experimental offerings of visiting professors, experimental offerings of new courses, or one-time offerings of current topics.

**LATN 392 - Independent Study. 1-6 Credits.**

(R-12) Offered autumn and spring. Course material appropriate to the needs and objectives of the individual student.

**LATN 492 - Independent Study. 1-12 Credits.**

(R-12) Offered intermittently. Course material appropriate to the needs and objectives of the individual student. Level: Undergraduate-Graduate

## Law (LAW)

**LAW 500 - Civil Procedure. 4 Credits.****LAW 501 - Civil Procedures II. 4 Credits.****LAW 502 - Contracts. 4 Credits.****LAW 504 - Law Fund: T&P. 1 Credit.****LAW 505 - Law Fund: T & P. 2 Credits.****LAW 506 - Law Fund: Research. 2 Credits.****LAW 507 - Global Perspectives on Law. 5 Credits.****LAW 508 - Law Fund: Legal Analysis. 2 Credits.****LAW 509 - Legal Research & Writing. 3-4 Credits.****LAW 510 - Criminal Law. 3 Credits.****LAW 511 - Criminal Procedure. 3 Credits.****LAW 512 - Torts. 4 Credits.****LAW 515 - Environmental Negotiation Mediation. 1-4 Credits.****LAW 519 - Enviro Negotiation Mediation. 3 Credits.**

Same as COMX 515, ENST 515 and NRSM 515. This course prepares students to effectively engage in multiparty negotiation on natural resource and environmental issues. It is grounded in theory and provides an opportunity to develop practical skills in both negotiation and facilitation/mediation. Guest speakers, case studies, and simulations allow students to develop, test, and refine best practices. The course is face-paced, highly interactive, and serves as the second of three required courses in the Natural Resources Conflict Resolution Program. Level: Graduate

**LAW 520 - Wild Life Law. 3 Credits.**

**LAW 522 - 2. 2 Credits.**

**LAW 523 - Juvenile Justice. 2 Credits.**

**LAW 524 - Legislation: Law & Politics. 3 Credits.**

**LAW 525 - Lawyers Values. 3 Credits.**

**LAW 526 - Business Tax II. 1-2 Credits.**

**LAW 527 - American Indian Cultural Preservation. 3 Credits.**

**LAW 528 - Advanced Problems Natural Resources. 3 Credits.**

**LAW 529 - Tax Practice & Procedure. 2 Credits.**

**LAW 530 - Climate Change. 2 Credits.**

**LAW 533 - Civil Rights Litigation. 2 Credits.**

**LAW 534 - Intellectual Property. 3 Credits.**

**LAW 537 - Law & Social Justice. 1 Credit.**

**LAW 538 - Art & Cultural Property. 2 Credits.**

**LAW 539 - International Environmental Law. 3 Credits.**

**LAW 541 - Pre-Trial Litigation. 3 Credits.**

**LAW 542 - Environmental Practice and Justice. 2 Credits.**

This course will examine the legal tools that help bring about environmental justice, highlighting the effectiveness of different tools for different contexts, ranging from water contamination in Flint, Michigan to refineries in Cancer Alley, Louisiana, to the Keystone XL, Dakota Access, and Enbridge pipeline protests and lawsuits. It will explore the causes of, and possible remedies for, environmental racism and injustice. It will consider disparities faced by communities of color, indigenous peoples, low-income groups, and the elderly in access to and control over the environmental requisites for health and well-being, including natural resources, pollution control, and environmental clean-up. The class will synthesize theory and practice through the development of practical advocacy skills.

**LAW 545 - Tribal Law Advocacy. 1 Credit.**

Due to the inherent sovereignty of American Indian Nations, advocacy within tribal governance systems is unique and differs from advocacy in State and Federal Forums. This course will promote a critical understanding of the techniques and skills necessary for advocacy in Tribal Government forums. In addition to argument before the Tribal Court, a large amount of legal practice in tribal forums also occurs before the tribal council. This is because in many tribal jurisdictions the tribal council functions as the legislative, executive and judicial branches. In many jurisdictions it is the tribal council, rather than the Court that hears and decides certain disputes (as not all tribes have implemented separation of powers and delegated the entirety of the judicial function either constitutionally or as a delegation of authority to the Tribal Court). With this in mind, the intent of this course is to give students a realistic view of Tribal Government forums and the role played by the tribal advocate with both experiences, a tribal court argument experience, and a tribal council argument experience.

**LAW 548 - Tax Practice & Procedure. 2 Credits.**

**LAW 549 - Environmental Crime. 2 Credits.**

**LAW 550 - Property. 4 Credits.**

**LAW 552 - Federal Tax. 3 Credits.**

**LAW 554 - Business Organizations. 2-3 Credits.**

**LAW 555 - Professional Responsibility. 3 Credits.**

**LAW 556 - Business Transactions. 3 Credits.**

**LAW 557 - Trial Practice. 2 Credits.**

**LAW 558 - Constitutional Law. 4 Credits.**

**LAW 560 - Evidence. 3 Credits.**

**LAW 564 - Law Review I. 1 Credit.**

**LAW 565 - Law Review II. 1 Credit.**

**LAW 570 - Academic Success Program. 0 Credits.**

**LAW 571 - Law Firm. 0 Credits.**

**LAW 579 - Tax Policy Seminar. 2 Credits.**

**LAW 580 - Corporate Tax. 2 Credits.**

**LAW 581 - Mediation Advocacy. 2 Credits.**

**LAW 582 - Foundations of Mediation. 1 Credit.**

**LAW 595 - Special Topics. 1-6 Credits.**

**LAW 599 - Clinical Training II. 1-8 Credits.**

**LAW 600 - Clinical Training III. 1-15 Credits.**

**LAW 601 - Clinical Training IV. 1-15 Credits.**

**LAW 602 - Law Review III. 1-2 Credits.**

**LAW 603 - Law Review IV. 1-2 Credits.**

**LAW 604 - Advanced Constitutional Law. 3 Credits.**

**LAW 605 - Animal Law. 2 Credits.**

**LAW 607 - Law and Literature. 1 Credit.**

**LAW 608 - Advanced Legislative Research and Academic Writing. 2 Credits.**

**LAW 609 - UCC Article 2. 2 Credits.**

**LAW 610 - Advanced Skills Competition. 1 Credit.**

**LAW 611 - Indian Law Research. 1 Credit.**

**LAW 612 - Tax Exempt Organizations. 2 Credits.**

**LAW 613 - Natural Resource Conflict Resolution. 3 Credits.**

Offered autumn. Same as NRSM 513 and ENST 513. Examines the basic framework for preventing and resolving natural resource and environmental conflicts in America. Reviews the history of alternative approaches, emphasizes the theory and practice of collaboration, and considers future trends. This highly interactive course uses lectures, guest speakers, case studies, and simulations. Level: Graduate

LAW 614 - Alternative Dispute Resolution. 3 Credits.  
 LAW 615 - Advanced Legal Research. 3 Credits.  
 LAW 616 - Appellate Advocacy. 3 Credits.  
 LAW 617 - Advanced Problems in Federal Indian Law. 3 Credits.  
 LAW 618 - Montana Constitutional Law. 3 Credits.  
 LAW 619 - American Indian Natural Resource Law. 3 Credits.  
 LAW 620 - Elder Law. 3 Credits.  
 LAW 621 - Bankruptcy. 3 Credits.  
 LAW 622 - Employment Law. 3 Credits.  
 LAW 624 - Insurance Law. 3 Credits.  
 LAW 625 - Gender and the Law. 1 Credit.  
 LAW 626 - Advanced American Indian Natural Resource Law. 3 Credits.  
 LAW 627 - Patent Law. 2 Credits.  
 LAW 628 - Remedies. 3 Credits.  
 LAW 629 - International Business & Trade. 3 Credits.  
 LAW 630 - Lawyers' Values. 3 Credits.  
 LAW 631 - Law Practice. 2 Credits.  
 LAW 632 - Public Regulation of Business: Securities. 2 Credits.  
 LAW 633 - Natural Resource Development. 3 Credits.  
 LAW 634 - Public International Law. 3 Credits.  
 LAW 635 - Partnership Tax. 2 Credits.  
 LAW 636 - Secured Transactions. 3 Credits.  
 LAW 637 - Healthcare Law. 2 Credits.  
 LAW 638 - Client Counseling Team. 2 Credits.  
 LAW 639 - Tax of Business Entities. 3 Credits.  
 LAW 640 - Tax of Property Transactions. 2 Credits.  
 LAW 641 - Negotiations. 3 Credits.  
 LAW 642 - Negotiation Team. 2 Credits.  
 LAW 643 - American Indian Culture, Religion, and Freedom. 3 Credits.  
 LAW 644 - White Collar Crime. 3 Credits.  
 LAW 645 - Consumer Law. 3 Credits.  
 LAW 646 - State and Local Government. 3 Credits.  
 LAW 647 - Advanced Intellectual Property. 2 Credits.  
 LAW 648 - Federal Indian Law. 3 Credits.  
 LAW 649 - Advanced Environmental Law. 3 Credits.  
 LAW 650 - Introduction to Environmental Law. 3 Credits.  
 LAW 651 - Oil and Gas Law. 3 Credits.  
 LAW 652 - Advanced Legislation. 3 Credits.  
 LAW 653 - Conflict of Laws. 2 Credits.  
 LAW 654 - Public Land & Resource Law. 3 Credits.  
 LAW 655 - Taxation of Estates & Gifts. 3 Credits.  
 LAW 656 - Agricultural and Food Law. 3 Credits.  
 LAW 657 - Products Liability. 3 Credits.  
 LAW 658 - Real Estate Transactions. 3 Credits.  
 LAW 659 - Estate Planning. 3 Credits.  
 LAW 660 - Independent Study. 1-2 Credits.  
 LAW 661 - Independent Study. 1-2 Credits.  
 LAW 662 - Workers' Compensation. 3 Credits.

LAW 680 - Advanced Criminal Procedure. 1-6 Credits.  
 LAW 681 - Independent Study. 1-2 Credits.  
 LAW 682 - Advanced Trial Advocacy. 2 Credits.  
 LAW 683 - International Law Research. 1 Credit.  
 LAW 685 - Adv Trial Advocacy. 1 Credit.  
 LAW 686 - Advanced Education Law Issues. 3 Credits.  
 LAW 687 - Land Use Planning Law. 2 Credits.  
 LAW 688 - Tribal Courts/Tribal Law. 3 Credits.  
 LAW 689 - Special Topics. 1-6 Credits.  
 LAW 690 - Adv Criminal Procedure. 3 Credits.  
 LAW 691 - American Indian Children and the Law. 3 Credits.  
 LAW 694 - Tribal/State Relations. 2 Credits.

## Legal Studies (LEG)

**LEG 183 - Contracts. 2 Credits.**

Offered spring. Offered at Missoula College. Sources of law affecting the formation, enforceability, and interpretation of contracts. Includes the necessary elements of a contract, the basic doctrines of contract law, and practical approaches to drafting a contract.

**LEG 184E - Legal Ethics. 3 Credits.**

Offered autumn. Offered at Missoula College. Introduction to ethical topics in the legal field, including confidentiality, professional relationships, fee arrangements, codes of professional conduct, attorney-client privilege, fiduciary responsibilities, and public service. The course will include a general introduction to the development of ethical concepts within the legal profession and the justice system.

Gen Ed Attributes: Ethical & Human Values

**LEG 185 - Introduction Paralegal Studies. 2 Credits.**

Offered autumn. Offered at Missoula College. Students will develop an ability to analyze basic legal principles in real property law and practical experience increasing, organizing, and completing real estate transactions. Students in the course will develop fundamental skills; real estate, landlord-tenant, and land use law. Further, students will continue development of drafting skills, legal research, and case analysis.

**LEG 186 - Introduction to Legal Research. 2 Credits.**

Offered autumn. Offered at Missoula College. Introduction to legal research focusing on how to find, use, understand, and correctly cite law library resources.

**LEG 187 - Legal Research & Writing I. 3 Credits.**

Offered spring. Offered at Missoula College. Advanced legal research focusing on how to find, use, understand, and correctly cite legal resources. Electronic research methods are presented. Application of legal research to writing is introduced.

**LEG 188 - Principles of Real Estate. 2 Credits.**

Offered spring. Offered at Missoula College. Students will develop an ability to analyze basic legal principles in real property law and practical experience increasing, organizing, and completing real estate transactions. Students in the course will develop fundamental skills; real estate, landlord-tenant, and land use law. Further, students will continue development of drafting skills, legal research, and case analysis.



**LEG 189 - Criminal Procedures. 3 Credits.**

Offered spring. Offered at Missoula College. Criminal prosecution and defense representation with an overview of criminal law principles. Training in criminal procedure involving felonies and misdemeanors in federal, Montana, and municipal courts.

**LEG 191 - Special Topics. 1-6 Credits.**

(R-6) Offered intermittently. Offered at Missoula College. Experimental offerings of visiting professors, experimental offerings of new courses, or one-time offerings of current topics.

**LEG 192 - Independent Study. 1-6 Credits.**

(R-6) Offered every term. Offered at Missoula College. Course material appropriate to the needs and objectives of the individual student.

**LEG 270 - Civil Litigation. 3 Credits.**

Offered autumn. Prereq., LEG 185. Offered at Missoula College. Introduction to rules governing civil litigation involving the general nature of how lawsuits arise including client interviews and data gathering, pleading and practice from the filing of suit to file preparation for trial, and core considerations of ethics and professionalism.

**LEG 272 - Computers & Law. 3 Credits.**

Offered at Missoula College. This course provides an introduction to the growing use of computer technology in law offices. Topics will include using established and developing technologies to address issues such as metadata, online office suites, online storage, Google Apps tools, word processing, spreadsheets, database, calendar, task lists, Bates stamping, online and in-office security, case management, optical character recognition & PDF document storage, operating systems, computers, scanners, online security, sale of providers, instant messaging, email, social media, courtroom presentations, discovery, document review, websites, online advertising, collaborative document editing, client billing, client trust account management, payroll, speech recognition, networking systems, cloud computing, remote desktop programs, and scheduling programs.

**LEG 282 - Contemporary Legal Issues. 3 Credits.**

Offered spring. Prereq., LEG 270. Offered at Missoula College. Capstone experience designed to investigate topical legal issues of immediate importance. Although the course has a delineated structure, the nature of the course will allow both relevant concentrated focus as well as traditional disciplined examination of numerous areas of law practice and theory. The various pedagogical modules will offer students the opportunity to explore statutory structure, analyze case law, and draft legal forms.

**LEG 283 - Trial Preparation. 3 Credits.**

Offered spring. Offered at Missoula College. Prereq., LEG 270. Capstone experience designed to investigate topical legal issues of immediate importance. Although the course has a delineated structure, the nature of the course will allow both relevant concentrated focus as well as traditional disciplined examination of numerous areas of law practice and theory. The various pedagogical modules will offer students the opportunity to explore statutory structure, analyze case law, and draft legal forms.

**LEG 285 - Family Law. 3 Credits.**

Offered spring. Offered at Missoula College. Prereq., LEG 286. Study of Montana law relating to marriage, husband and wife, parent and child, termination of marriage, adoption, joint and sole custody arrangements and modifications, child support guidelines, and juvenile issues. Includes preparation of standard family law documents.

**LEG 286 - Legal Research & Writing II. 3 Credits.**

Offered autumn. Offered at Missoula College. Prereq., LEG 187. Advanced legal research and writing with emphasis on drafting and composing legal memoranda; legal research skills and development of legal writing ability.

**LEG 287 - Legal Research & Writing III. 2 Credits.**

Offered spring. Offered at Missoula College. Prereq., LEG 286. Continued development of legal research and writing skills including advanced legal theory/case law synthesis, drafting correspondence, pleadings, discovery documents, persuasive writing. Upon completion of this course, the student will be able to: research, analyze, synthesize, and prioritize law cases, treatises, doctrines, theory of the law, legal rules, and other information and draft appropriate correspondence, pleadings, motions, briefs, discovery documents or memoranda relating to that information as would be anticipated in a law office.

**LEG 288 - Estate Administration. 2 Credits.**

Offered spring. Offered at Missoula College. Prereq., LEG 286. This course provides an overview of the law as it applies to wills, trusts, and other estate matters. Topics include the nature and sources of the law relating to wills, trusts, and estates, estate planning, intestate succession, family protection, probate, and estate taxes.

**LEG 291 - Special Topics. 1-6 Credits.**

(R-6) Offered intermittently. Offered at Missoula College. Experimental offerings of visiting professors, experimental offerings of new courses, or one-time offerings of current topics.

**LEG 292 - Independent Study. 1-6 Credits.**

(R-6) Offered every term. Offered at Missoula College. Course material appropriate to the needs and objectives of the individual student.

**LEG 298 - Paralegal Studies Internship. 2 Credits.**

(R-6) Offered autumn and spring. Offered at Missoula College. On-the-job experience as a paralegal trainee under the supervision of an employer, attorney, or court official. This experience increases students' skills, prepares them for initial employment and advancement on the job, and increases occupational awareness and professionalism. Students work a minimum of 90 hours at an approved site and attend a weekly one-hour seminar.

## Library Science (LSCI)

**LSCI 191 - Special Topics. 1-6 Credits.**

(R-6) Experimental offerings of visiting professors, experimental offerings of new courses, or one-time offerings of current topics.

**LSCI 192 - Independent Study. 1-6 Credits.**

(R-6) Course material appropriate to the needs and objectives of the individual student.

**LSCI 200 - Research Strategies. 1 Credit.**

Offered every term. Introduces on-campus and distant students to academic library research methods and resources with a focus on remote access and services for distant students. Explores all steps of academic research including how to find information and use critical thinking to evaluate sources.

**LSCI 210Y - Who Owns Culture? An Introduction to Copyright. 3 Credits.**

Students will learn how copyright affects their rights and responsibilities in creative processes as well as access to information. Gen Ed Attributes: Democracy and Citizenship

**LSCI 291 - Special Topics. 1-6 Credits.**

(R-6) Experimental offerings of visiting professors, experimental offerings of new courses, or one-time offerings of current topics.



**LSCI 292 - Independent Study. 1-6 Credits.**

(R-6) Course material appropriate to the needs and objectives of the individual student.

**LSCI 391 - Special Topics. 1-9 Credits.**

(R-9) Experimental offerings of visiting professors, experimental offerings of new courses, or one-time offerings of current topics.

**LSCI 392 - Independent Study. 1-9 Credits.**

(R-9) Course material appropriate to the needs and objectives of the individual student.

**LSCI 398 - Internship. 1-6 Credits.**

(R-6) Extended classroom experience that provides practical application of classroom learning during placements off campus. Prior approval must be obtained from the faculty supervisor. A maximum of 6 credits of Internship (198, 298, 398, 498) may count toward graduation.

**LSCI 491 - Special Topics. 1-12 Credits.**

(R-12) Experimental offerings of visiting professors, experimental offerings of new courses, or one-time offerings of current topics. Level: Undergraduate-Graduate

**LSCI 492 - Independent Study. 1-9 Credits.**

(R-9) Course material appropriate to the needs and objectives of the individual student. Level: Undergraduate

**LSCI 498 - Internship. 1-6 Credits.**

(R-6) Extended classroom experience that provides practical application of classroom learning during placements off campus. Prior approval must be obtained from the faculty supervisor. A maximum of 6 credits of Internship (198, 298, 398, 498) may count toward graduation. Level: Undergraduate/Graduate

**LSCI 591 - Special Topics. 1-9 Credits.**

(R-24) Experimental offerings of visiting professors, experimental offerings of new courses, or one-time offerings of current topics. Level: Graduate

**LSCI 598 - Internship. 1-6 Credits.**

(R-6) Extended classroom experience that provides practical application of classroom learning during placements off campus. Prior approval must be obtained from the faculty supervisor. Level: Graduate

## Linguistics (LING)

**LING 191 - Special Topics. 1-6 Credits.**

(R-6) Offered intermittently. Experimental offerings of visiting professors, experimental offerings of new courses, or one-time offerings of current topics.

**LING 198 - Internship. 1-6 Credits.**

(R-6) Offered intermittently. Extended classroom experience that provides practical application of classroom learning during placements off campus. Prior approval must be obtained from the faculty supervisor. A maximum of 6 credits of Internship (198, 298, 398, 498) may count toward graduation.

**LING 238 - Structure and Function of Language. 3 Credits.**

Offered intermittently. This course concentrates almost exclusively on English, particularly as it relates to the written word and reading processes practiced thereupon: It's not a course that teaches students "how to read" but "how you read" (i.e., make print intelligible).

**LING 270S - Intro to Linguistics. 3 Credits.**

Offered autumn and spring. An introduction to the field of modern linguistics and to the nature of language. Emphasis on the ways different cultures develop symbol systems for representing meaning.

Gen Ed Attributes: Social Sciences

**LING 375X - Linguistic Ecology and Language Endangerment. 3 Credits.**

Offered spring. Survey of endangered languages and the communities in which they are spoken. Topics to be addressed include linguistic diversity, language endangerment, language shift and loss, language maintenance efforts, and prospects for the future of these languages.

Gen Ed Attributes: Writing Across the Curriculum, Cultural & International Diversity

**LING 391 - Special Topics. 1-9 Credits.**

(R-9) Offered intermittently. Experimental offerings of visiting professors, experimental offerings of new courses, or one-time offerings of current topics.

**LING 398 - Internship. 1-6 Credits.**

(R-6) Offered intermittently. Extended classroom experience that provides practical application of classroom learning during placements off campus. Prior approval must be obtained from the faculty supervisor. A maximum of 6 credits of Internship (198, 298, 398, 498) may count toward graduation.

**LING 461 - Speech Data Annotation for Linguistics Research. 3 Credits.**

Offered fall. Prereq., LING 270S. This course introduces students to the various methods for processing and annotating audio recordings of natural speech for linguistics research. Types of recordings to be annotated include utterances of isolated words and connected speech in English and other selected languages. Three distinct annotation methods are introduced: conversation transcription for discourse analysis, interlinear analysis annotation in ELAN, and segmentation annotation for acoustic analysis in Praat. Emphasis throughout is on students' gaining hands-on experience with each method. Co-convenes with LING 561. Level: Undergraduate

**LING 470 - Linguistic Analysis. 3 Credits.**

Offered autumn. An in-depth examination of the formal properties of language, concentrating on the core areas of linguistic analysis (phonetics, phonology, morphology, syntax, and semantics). Level: Undergraduate-Graduate

**LING 471 - Phonetics and Phonology. 3 Credits.**

Offered autumn. Prereq., LING 470. This course examines the gestural and acoustic properties of speech sounds (phonetics) and their representation and organization in particular languages (phonology). Students are introduced to the International Phonetic Alphabet and the use of spectrograms in the study of phonetics. Various theoretical concepts and frameworks to conduct phonological analyses are introduced using data from the world's languages. The knowledge and skills obtained from this course may be applied to speech pathology, dialectology, neuroscience, language learning, and further study of linguistic theory. This course co-convenes with LING 571. Level: Undergraduate

**LING 472 - Syntax. 3 Credits.**

Offered autumn, even-numbered years. Prereq., LING 470. This course is an investigation of syntax - the branch of linguistics focusing on the scientific study of sentence structure in natural languages. Syntactic properties in a variety of the world's languages are examined. Students explore the basic concepts of contemporary syntactic theory while developing skills in observing data, making generalizations, and generating and testing hypotheses. This course co-convenes with LING 572. Level: Undergraduate

**LING 473 - Language and Culture. 3 Credits.**

Offered spring, odd-numbered years. Prereq., WRIT 101 and LING 270S. Technical study of the relationships between grammatical categories and world view. This course co-convenes with LING 573. Level: Undergraduate  
Gen Ed Attributes: Writing in the Disciplines

**LING 474 - Historical Linguistics. 3 Credits.**

Offered spring, even-numbered years. Prereq., LING 470. An introduction to the study of language change over time. Topics include: methods for studying language change (the comparative method and internal reconstruction); types of language change (sound change, borrowing, analogical change, lexical, syntactic, and semantic change); and explanations for language change. The principles of historical reconstruction and comparative method in the analysis of linguistic variation and change. This course co-convenes with LING 574. Level: Undergraduate

**LING 475 - Linguistic Field Methods. 3 Credits.**

Offered intermittently. Prereq., LING 470. This course focuses on developing techniques for eliciting linguistic data by working with a native speaker of a less commonly taught language. This course co-convenes with LING 575. Level: Undergraduate

**LING 477 - Bilingualism. 3 Credits.**

Offered spring, even-numbered years. Prereq., LING 270S or LING 470. Societal and individual bilingualism: topics include language policy, maintenance, interference, code-switching and mixing, and bilingual education. Level: Undergraduate-Graduate

**LING 478 - Learner Language. 3 Credits.**

Offered spring, odd-numbered years. Prereq., LING 270S or LING 470. Observing/describing language learners' behaviors and, to a degree, advances toward proficiency (i.e., fluency plus accuracy); the presence of error as conditioned by a priori knowledge of language and implications for child and adult development; and applying typical methods of linguistic analysis to the (non-) systematic variants in language form characterizing developmental processes as a way of trying to explain variable behavior. Level: Undergraduate-Graduate

**LING 484 - North American Indigenous Language & Linguistics. 3 Credits.**

Offered autumn odd-numbered years. Prereq., WRIT 101 and LING 470. Description and analysis of grammatical features of Indigenous languages of North America. This course co-convenes with LING 584. Level: Undergraduate  
Gen Ed Attributes: Writing in the Disciplines

**LING 489 - Morphology. 3 Credits.**

Offered intermittently. Prereq., LING 470. A survey of the morphological features of several unrelated languages to provide the student with a broad overview of how languages compare and contrast. This course co-convenes with LING 589. Level: Undergraduate

**LING 491 - Special Topics. 1-6 Credits.**

(R-6) Offered intermittently. Experimental offerings of visiting professors, experimental offerings of new courses, or one-time offerings of current topics. Level: Undergraduate-Graduate

**LING 492 - Independent Study. 1-9 Credits.**

(R-9) Offered intermittently. Course material appropriate to the needs and objectives of the individual student. Level: Undergraduate-Graduate

**LING 494 - Seminar. 1-6 Credits.**

(R-6) Offered autumn. Prereq., LING 270S or LING 470. A review and discussion of advanced topics covering descriptive linguistics, linguistic theory and subjects related to the analysis of human languages. Level: Undergraduate-Graduate

**LING 495 - ESL Practicum. 1-3 Credits.**

Offered spring. Students with a teaching major take the course for 3 credits; others take it for 1 credit and do one third of the work. Level: Undergraduate-Graduate

**LING 498 - Internship. 1-6 Credits.**

(R-6) Offered intermittently. Extended classroom experience that provides practical application of classroom learning during placements off campus. Prior approval must be obtained from the faculty supervisor. A maximum of 6 credits of Internship (198, 298, 398, 498) may count toward graduation. Level: Undergraduate-Graduate

**LING 559 - Preceptorship. 1 Credit.**

(R-4) Offered autumn and spring. Materials development, assessment and evaluation of learners' needs and interests in teaching English as an academic second Language to international students attending universities with English instruction. Level: Graduate

**LING 561 - Speech Data Annotation for Linguistics Research. 3 Credits.**

This course introduces students to the various methods for processing and annotating audio recordings of natural speech for linguistics research. Types of recordings to be annotated include utterances of isolated words and connected speech in English and other selected languages. Three distinct annotation methods are introduced: conversation transcription for discourse analysis, interlinear analysis annotation in ELAN, and segmentation annotation for acoustic analysis in Praat. Emphasis throughout is on students gaining hands-on experience with each method. This course co-convenes with LING 461. Graduate students are required to complete an additional task involving a higher level of analysis for their assignments. Level: Graduate

**LING 570 - Seminar in Linguistics. 3 Credits.**

(R-12) Offered autumn and spring. Advanced topics in linguistic analysis. Level: Graduate

**LING 571 - Phonetics and Phonology. 3 Credits.**

Offered autumn. This course examines the gestural and acoustic properties of speech sounds (phonetics) and their representation and organization in particular languages (phonology). Students are introduced to the International Phonetic Alphabet and the use of spectrograms in the study of phonetics. Various theoretical concepts and frameworks to conduct phonological analyses are introduced using data from the world's languages. The knowledge and skills obtained from this course may be applied to speech pathology, dialectology, neuroscience, language learning, and further study of linguistic theory. This course co-convenes with LING 471. Graduate students taking LING 571 will complete additional requirements and their work will be of a more advanced nature. Level: Graduate

**LING 572 - Syntax. 3 Credits.**

Offered autumn, even-numbered years. This course is an investigation of syntax - the branch of linguistics focusing on the scientific study of sentence structure in natural languages. Syntactic properties in a variety of the world's languages are examined. Students explore the basic concepts of contemporary syntactic theory while developing skills in observing data, making generalizations, and generating and testing hypotheses. This course co-convenes with LING 472. Graduate students will complete additional requirements and their work will be of a more advanced nature. Level: Graduate.

**LING 573 - Language and Culture. 3 Credits.**

Offered spring, odd-numbered years. Technical study of the relationships between grammatical categories and world view. This course co-convenes with LING 473. Graduate students will complete additional requirements and their work will be of a more advanced nature. Level: Graduate

**LING 574 - Historical Linguistics. 3 Credits.**

Offered spring even-numbered years. An introduction to the study of language change over time. Topics include: methods for studying language change (the comparative method and internal reconstruction); types of language change (sound change, borrowing, analogical change, lexical, syntactic, and semantic change); and explanations for language change. The principles of historical reconstruction and comparative method in the analysis of linguistic variation and change. This course co-convenes with LING 474. Graduate students will complete additional requirements and their work will be of a more advanced nature. Level: Graduate

**LING 575 - Linguistic Field Methods. 3 Credits.**

Offered intermittently. This course focuses on developing techniques for eliciting linguistic data by working with a native speaker of a less commonly taught language. This courses co-convenes with LING 475. Graduate students will complete additional requirements and their work will be of a more advanced nature. Level: Graduate

**LING 584 - North American Indigenous Language and Linguistics. 3 Credits.**

Offered autumn odd-numbered years. Description and analysis of grammatical features of Indigenous languages of North America. This course co-convenes with LING 484. Graduate students will complete additional requirements and their work will be of a more advanced nature. Level: Graduate

**LING 589 - Morphology. 3 Credits.**

Offered intermittently. A survey of the morphological features of several unrelated languages to provide the student with a broad overview of how languages compare and contrast. This course co-convenes with LING 489. Graduate students taking LING 589 will complete additional requirements and their work will be of a more advanced nature. Level: Graduate

**LING 591 - Special Topics. 1-9 Credits.**

(R-24) Offered intermittently. Experimental offerings of visiting professors, experimental offerings of new courses, or one-time offerings of current topics. Level: Graduate

**LING 592 - Independent Study. 1-3 Credits.**

(R-6) Offered intermittently. Course material appropriate to the needs and objectives of the individual student. Level: Graduate

**LING 598 - Internship. 1-6 Credits.**

(R-6) Offered intermittently. Extended classroom experience which provides practical application of classroom learning during placements off campus. Level: Graduate

**LING 599 - Thesis. 1-6 Credits.**

(R-6) Offered intermittently. Preparation of a thesis appropriate to the needs and objectives of the individual student. Level: Graduate

## Management Information Systems (MIS)

**MIS 260 - Life and Health Insurance. 3 Credits.**

Offered intermittently as extended credit. Introduction to the principles of life and health insurance as well as the legal and regulatory environment for each industry.

**MIS 261 - Life Insurance. 1 Credit.**

Offered intermittently as extended credit. Introduction to the principles of life insurance as well as the life insurance industry's legal and regulatory environment.

**MIS 262 - Health Insurance. 1 Credit.**

Offered intermittently as extended credit. Introduction to the principles of health insurance as well as the health insurance industry's legal and regulatory environment.

**MIS 263 - Property and Casualty Insurance. 3 Credits.**

Offered intermittently as extended credit. Introduction to the principles of property insurance as well as the property insurance industry's legal and regulatory environment.

**MIS 264 - Property Insurance. 1 Credit.**

Offered intermittently as extended credit. Introduction to the principles of property insurance as well as the property insurance industry's legal and regulatory environment.

**MIS 265 - Casualty Insurance. 1 Credit.**

Offered intermittently as extended credit. Introduction to the principles of casualty insurance as well as the casualty insurance industry's legal and regulatory environment.

**MIS 266 - Personal Lines Insurance. 1 Credit.**

Offered intermittently as extended credit. Introduction to the principles of personal lines insurance as well as the personal lines insurance industry's legal and regulatory environment.

## Mansfield Center (MANS)

**MANS 103 - Elementary Persian-Farsi. 2-9 Credits.**

The Defense Critical Language and Culture Program (DCLCP) (of The University of Montana's Maureen and Mike Mansfield Center) provides intensive language and culture training for members of the National Guard, Reserve, and Active Duty utilizing a congressionally funded Language Training Center (LTC) contract through the Department of Defense Language and National Security Education Office (DLNSEO) —Grant title: Subaward 2013-LTC-Montana (H98210-13-2-0001). This DCLCP course is designed to meet DoD (Department of Defense) total force language training needs in order to enable the DoD workforce to be better prepared and equipped with the target language, cultural and regional expertise. As a part of DoD Language Training Center, the course is open exclusively for U.S. DoD personnel who would not otherwise enroll into other UMT language course. This variable 2-9 credit Elementary Persian Farsi language course is designed for military students with no prior experience and is based on communicative teaching methods. This course entails total immersion in a Persian Farsi environment that will include four skills: listening, reading, speaking, and writing. Instruction will be conducted at the introductory level to intermediate (levels 0 - 1).

**MANS 104 - Elementary Levantine Arabic. 2-9 Credits.**

The Defense Critical Language and Culture Program (DCLCP) (of The University of Montana's Maureen and Mike Mansfield Center) provides intensive language and culture training for members of the National Guard, Reserve, and Active Duty utilizing a congressionally funded Language Training Center (LTC) contract through the Department of Defense Language and National Security Education Office (DLNSEO) —Grant title: Subaward 2013-LTC-Montana (H98210-13-2-0001). This DCLCP course is designed to meet DoD (Department of Defense) total force language training needs in order to enable the DoD workforce to be better prepared and equipped with the target language, cultural and regional expertise. As a part of DoD Language Training Center, the course is open exclusively for U.S. DoD personnel who would not otherwise enroll into other UMT language course. This variable 2-9 credit Elementary Levantine Arabic language course is designed for military students with no prior experience and is based on communicative teaching methods. This course entails total immersion in a Levantine Arabic environment that will include four skills: listening, reading, speaking, and writing. Instruction will be conducted at the introductory level to intermediate (levels 0 - 1).

**MANS 105 - Elementary Modern Standard Arabic. 2-9 Credits.**

This DCLCP course is designed to meet DoD (Department of Defense) Total Force MSA language training needs, with an emphasis on the fifth group The Defense Critical Language and Culture Program (DCLCP) (of The University of Montana's Maureen and Mike Mansfield Center) provides intensive language and culture training for members of the National Guard, Reserve, and Active Duty utilizing a congressionally funded Language Training Center (LTC) contract through the Department of Defense Language and National Security Education Office (DLNSEO) —Grant title: Subaward 2013-LTC-Montana (H98210-13-2-0001). This DCLCP course is designed to meet DoD (Department of Defense) total force language training needs in order to enable the DoD workforce to be better prepared and equipped with the target language, cultural and regional expertise. As a part of DoD Language Training Center, the course is open exclusively for U.S. DoD personnel who would not otherwise enroll into other UMT language course. This variable 2-9 credit Elementary Modern Standard Arabic language course is designed for military students with no prior experience and is based on communicative teaching methods. This course entails total immersion in a Modern Standard Arabic environment that will include four skills: listening, reading, speaking, and writing. Instruction will be conducted at the introductory level to intermediate (levels 0 - 1).

**MANS 106 - Elementary Indonesian. 2-9 Credits.**

The Defense Critical Language and Culture Program (DCLCP) (of The University of Montana's Maureen and Mike Mansfield Center) provides intensive language and culture training for members of the National Guard, Reserve, and Active Duty utilizing a congressionally funded Language Training Center (LTC) contract through the Department of Defense Language and National Security Education Office (DLNSEO) —Grant title: Subaward 2013-LTC-Montana (H98210-13-2-0001). This DCLCP course is designed to meet DoD (Department of Defense) total force language training needs in order to enable the DoD workforce to be better prepared and equipped with the target language, cultural and regional expertise. As a part of DoD Language Training Center, the course is open exclusively for U.S. DoD personnel who would not otherwise enroll into other UMT language course. This variable 2-9 credit Elementary Indonesian language course is designed for military students with no prior experience and is based on communicative teaching methods. This course entails total immersion in an Indonesian environment that will include four skills: listening, reading, speaking, and writing. Instruction will be conducted at the introductory level to intermediate (levels 0 - 1).

**MANS 107 - Elementary Korean. 2-9 Credits.**

This variable 2-9 credit Elementary Korean language course is designed for military students with no prior experience and is based on communicative teaching methods. This course entails total immersion in a Korean environment that will include four skills: listening, reading, speaking, and writing. Instruction will be conducted at the introductory level to intermediate (levels 0 - 1).

**MANS 108 - Elementary Chinese Mandarin. 2-9 Credits.**

The Defense Critical Language and Culture Program (DCLCP) (of The University of Montana's Maureen and Mike Mansfield Center) provides intensive language and culture training for members of the National Guard, Reserve, and Active Duty utilizing a congressionally funded Language Training Center (LTC) contract through the Department of Defense Language and National Security Education Office (DLNSEO) —Grant title: Subaward 2013-LTC-Montana (H98210-13-2-0001). This DCLCP course is designed to meet DoD (Department of Defense) total force language training needs in order to enable the DoD workforce to be better prepared and equipped with the target language, cultural and regional expertise. As a part of DoD Language Training Center, the course is open exclusively for U.S. DoD personnel who would not otherwise enroll into other UMT language course. This variable 2-9 credit Elementary Chinese Mandarin language course is designed for military students with no prior experience and is based on communicative teaching methods. This course entails total immersion in a Chinese environment that will include four skills: listening, reading, speaking, and writing. Instruction will be conducted at the introductory level to intermediate (levels 0 - 1).

**MANS 109 - Elementary Russian. 2-9 Credits.**

The Defense Critical Language and Culture Program (DCLCP) (of The University of Montana's Maureen and Mike Mansfield Center) provides intensive language and culture training for members of the National Guard, Reserve, and Active Duty utilizing a congressionally funded Language Training Center (LTC) contract through the Department of Defense Language and National Security Education Office (DLNSEO) —Grant title: Subaward 2013-LTC-Montana (H98210-13-2-0001). This DCLCP course is designed to meet DoD (Department of Defense) total force language training needs in order to enable the DoD workforce to be better prepared and equipped with the target language, cultural and regional expertise. As a part of DoD Language Training Center, the course is open exclusively for U.S. DoD personnel who would not otherwise enroll into other UMT language course. This variable 2-9 credit Elementary Russian language course is designed for military students with no prior experience and is based on communicative teaching methods. This course entails total immersion in a Russian environment that will include four skills: listening, reading, speaking, and writing. Instruction will be conducted at the introductory level to intermediate (levels 0 - 1).



**MANS 110 - Elementary Spanish. 2-9 Credits.**

The Defense Critical Language and Culture Program (DCLCP) (of The University of Montana's Maureen and Mike Mansfield Center) provides intensive language and culture training for members of the National Guard, Reserve, and Active Duty utilizing a congressionally funded Language Training Center (LTC) contract through the Department of Defense Language and National Security Education Office (DLNSEO) —Grant title: Subaward 2013-LTC-Montana (H98210-13-2-0001). This DCLCP course is designed to meet DoD (Department of Defense) total force language training needs in order to enable the DoD workforce to be better prepared and equipped with the target language, cultural and regional expertise. As a part of DoD Language Training Center, the course is open exclusively for U.S. DoD personnel who would not otherwise enroll into other UMT language course. This variable 2-9 credit Elementary Spanish language course is designed for military students with no prior experience and is based on communicative teaching methods. This course entails total immersion in a Spanish environment that will include four skills: listening, reading, speaking, and writing. Instruction will be conducted at the introductory level to intermediate (levels 0 - 1).

**MANS 111 - Elementary French. 2-9 Credits.**

The Defense Critical Language and Culture Program (DCLCP) (of The University of Montana's Maureen and Mike Mansfield Center) provides intensive language and culture training for members of the National Guard, Reserve, and Active Duty utilizing a congressionally funded Language Training Center (LTC) contract through the Department of Defense Language and National Security Education Office (DLNSEO) —Grant title: Subaward 2013-LTC-Montana (H98210-13-2-0001). This DCLCP course is designed to meet DoD (Department of Defense) total force language training needs in order to enable the DoD workforce to be better prepared and equipped with the target language, cultural and regional expertise. As a part of DoD Language Training Center, the course is open exclusively for U.S. DoD personnel who would not otherwise enroll into other UMT language course. This variable 2-9 credit Elementary French language course is designed for military students with no prior experience and is based on communicative teaching methods. This course entails total immersion in a French environment that will include four skills: listening, reading, speaking, and writing. Instruction will be conducted at the introductory level to intermediate (levels 0 - 1).

**MANS 112 - Elementary Egyptian Arabic. 2-9 Credits.**

The Defense Critical Language and Culture Program (DCLCP) (of The University of Montana's Maureen and Mike Mansfield Center) provides intensive language and culture training for members of the National Guard, Reserve, and Active Duty utilizing a congressionally funded Language Training Center (LTC) contract through the Department of Defense Language and National Security Education Office (DLNSEO) —Grant title: Subaward 2013-LTC-Montana (H98210-13-2-0001). This DCLCP course is designed to meet DoD (Department of Defense) total force language training needs in order to enable the DoD workforce to be better prepared and equipped with the target language, cultural and regional expertise. As a part of DoD Language Training Center, the course is open exclusively for U.S. DoD personnel who would not otherwise enroll into other UMT language course. This variable 2-9 credit Elementary Egyptian Arabic language course is designed for military students with no prior experience and is based on communicative teaching methods. This course entails total immersion in an Egyptian Arabic environment that will include four skills: listening, reading, speaking, and writing. Instruction will be conducted at the introductory level to intermediate (levels 0 - 1).

**MANS 195 - Special Topics. 1-9 Credits.**

(R-12) Offered intermittently. Prereq., consent of instr. Experimental offerings of new courses or one-time offerings of current topics.

**MANS 203 - Intermediate Persian-Farsi. 2-9 Credits.**

The Defense Critical Language and Culture Program (DCLCP) (of The University of Montana's Maureen and Mike Mansfield Center) provides intensive language and culture training for members of the National Guard, Reserve, and Active Duty utilizing a congressionally funded Language Training Center (LTC) contract through the Department of Defense Language and National Security Education Office (DLNSEO) —Grant title: Subaward 2013-LTC-Montana (H98210-13-2-0001). This DCLCP course is designed to meet DoD (Department of Defense) total force language training needs in order to enable the DoD workforce to be better prepared and equipped with the target language, cultural and regional expertise. As a part of DoD Language Training Center, the course is open exclusively for U.S. DoD personnel who would not otherwise enroll into other UMT language course. This variable 2-9 credit Intermediate Persian Farsi course is designed for military students who have reached the proficiency level 0+/0+ on the Interagency Language Roundtable (ILR) scale. This course entails a total immersion in a Persian Farsi environment that will include four skills: listening, reading, speaking, and writing. Instruction will be conducted at the intermediate level to intermediate high (levels 0+ - 1+).

**MANS 204 - Intermediate Levantine Arabic. 2-9 Credits.**

The Defense Critical Language and Culture Program (DCLCP) (of The University of Montana's Maureen and Mike Mansfield Center) provides intensive language and culture training for members of the National Guard, Reserve, and Active Duty utilizing a congressionally funded Language Training Center (LTC) contract through the Department of Defense Language and National Security Education Office (DLNSEO) —Grant title: Subaward 2013-LTC-Montana (H98210-13-2-0001). This DCLCP course is designed to meet DoD (Department of Defense) total force language training needs in order to enable the DoD workforce to be better prepared and equipped with the target language, cultural and regional expertise. As a part of DoD Language Training Center, the course is open exclusively for U.S. DoD personnel who would not otherwise enroll into other UMT language course. This variable 2-9 credit Intermediate Levantine Arabic course is designed for military students who have reached the proficiency level 0+/0+ on the Interagency Language Roundtable (ILR) scale. This course entails a total immersion in a Levantine Arabic environment that will include four skills: listening, reading, speaking, and writing. Instruction will be conducted at the intermediate level to intermediate high (levels 0+ - 1+).

**MANS 205 - Intermediate Modern Standard Arabic. 2-9 Credits.**

This variable 2-9 credit Intermediate Modern Standard Arabic course is designed for military students who have reached the proficiency level 0+/0+ on the Interagency Language Roundtable (ILR) scale. This course entails a total immersion in a Modern Standard Arabic environment that will include four skills: listening, reading, speaking, and writing. Instruction will be conducted at the intermediate level to intermediate high (levels 0+ - 1+).



**MANS 206 - Intermediate Indonesian. 2-9 Credits.**

The Defense Critical Language and Culture Program (DCLCP) (of The University of Montana's Maureen and Mike Mansfield Center) provides intensive language and culture training for members of the National Guard, Reserve, and Active Duty utilizing a congressionally funded Language Training Center (LTC) contract through the Department of Defense Language and National Security Education Office (DLNSEO) —Grant title: Subaward 2013-LTC-Montana (H98210-13-2-0001). This DCLCP course is designed to meet DoD (Department of Defense) total force language training needs in order to enable the DoD workforce to be better prepared and equipped with the target language, cultural and regional expertise. As a part of DoD Language Training Center, the course is open exclusively for U.S. DoD personnel who would not otherwise enroll into other UMT language course. This variable 2-9 credit Intermediate Indonesian course is designed for military students who have reached the proficiency level 0+/0+ on the Interagency Language Roundtable (ILR) scale. This course entails a total immersion in an Indonesian environment that will include four skills: listening, reading, speaking, and writing. Instruction will be conducted at the intermediate level to intermediate high (levels 0+ - 1+).

**MANS 207 - Intermediate Korean. 2-9 Credits.**

The Defense Critical Language and Culture Program (DCLCP) (of The University of Montana's Maureen and Mike Mansfield Center) provides intensive language and culture training for members of the National Guard, Reserve, and Active Duty utilizing a congressionally funded Language Training Center (LTC) contract through the Department of Defense Language and National Security Education Office (DLNSEO) —Grant title: Subaward 2013-LTC-Montana (H98210-13-2-0001). This DCLCP course is designed to meet DoD (Department of Defense) total force language training needs in order to enable the DoD workforce to be better prepared and equipped with the target language, cultural and regional expertise. As a part of DoD Language Training Center, the course is open exclusively for U.S. DoD personnel who would not otherwise enroll into other UMT language course. This variable 2-9 credit Intermediate Korean course is designed for military students who have reached the proficiency level 0+/0+ on the Interagency Language Roundtable (ILR) scale. This course entails a total immersion in a Korean environment that will include four skills: listening, reading, speaking, and writing. Instruction will be conducted at the intermediate level to intermediate high (levels 0+ - 1+).

**MANS 208 - Intermediate Chinese Mandarin. 2-9 Credits.**

The Defense Critical Language and Culture Program (DCLCP) (of The University of Montana's Maureen and Mike Mansfield Center) provides intensive language and culture training for members of the National Guard, Reserve, and Active Duty utilizing a congressionally funded Language Training Center (LTC) contract through the Department of Defense Language and National Security Education Office (DLNSEO) —Grant title: Subaward 2013-LTC-Montana (H98210-13-2-0001). This DCLCP course is designed to meet DoD (Department of Defense) total force language training needs in order to enable the DoD workforce to be better prepared and equipped with the target language, cultural and regional expertise. As a part of DoD Language Training Center, the course is open exclusively for U.S. DoD personnel who would not otherwise enroll into other UMT language course. This variable 2-9 credit Intermediate Chinese Mandarin course is designed for military students who have reached the proficiency level 0+/0+ on the Interagency Language Roundtable (ILR) scale. This course entails a total immersion in a Chinese Mandarin environment that will include four skills: listening, reading, speaking, and writing. Instruction will be conducted at the intermediate level to intermediate high (levels 0+ - 1+).

**MANS 209 - Intermediate Russian. 2-9 Credits.**

The Defense Critical Language and Culture Program (DCLCP) (of The University of Montana's Maureen and Mike Mansfield Center) provides intensive language and culture training for members of the National Guard, Reserve, and Active Duty utilizing a congressionally funded Language Training Center (LTC) contract through the Department of Defense Language and National Security Education Office (DLNSEO) —Grant title: Subaward 2013-LTC-Montana (H98210-13-2-0001). This DCLCP course is designed to meet DoD (Department of Defense) total force language training needs in order to enable the DoD workforce to be better prepared and equipped with the target language, cultural and regional expertise. As a part of DoD Language Training Center, the course is open exclusively for U.S. DoD personnel who would not otherwise enroll into other UMT language course. This variable 2-9 credit Intermediate Russian course is designed for military students who have reached the proficiency level 0+/0+ on the Interagency Language Roundtable (ILR) scale. This course entails a total immersion in a Russian environment that will include four skills: listening, reading, speaking, and writing. Instruction will be conducted at the intermediate level to intermediate high (levels 0+ - 1+).

**MANS 210 - Intermediate Spanish. 2-9 Credits.**

The Defense Critical Language and Culture Program (DCLCP) (of The University of Montana's Maureen and Mike Mansfield Center) provides intensive language and culture training for members of the National Guard, Reserve, and Active Duty utilizing a congressionally funded Language Training Center (LTC) contract through the Department of Defense Language and National Security Education Office (DLNSEO) —Grant title: Subaward 2013-LTC-Montana (H98210-13-2-0001). This DCLCP course is designed to meet DoD (Department of Defense) total force language training needs in order to enable the DoD workforce to be better prepared and equipped with the target language, cultural and regional expertise. As a part of DoD Language Training Center, the course is open exclusively for U.S. DoD personnel who would not otherwise enroll into other UMT language course. This variable 2-9 credit Intermediate Spanish course is designed for military students who have reached the proficiency level 0+/0+ on the Interagency Language Roundtable (ILR) scale. This course entails a total immersion in a Spanish environment that will include four skills: listening, reading, speaking, and writing. Instruction will be conducted at the intermediate level to intermediate high (levels 0+ - 1+).

**MANS 211 - Intermediate French. 2-9 Credits.**

The Defense Critical Language and Culture Program (DCLCP) (of The University of Montana's Maureen and Mike Mansfield Center) provides intensive language and culture training for members of the National Guard, Reserve, and Active Duty utilizing a congressionally funded Language Training Center (LTC) contract through the Department of Defense Language and National Security Education Office (DLNSEO) —Grant title: Subaward 2013-LTC-Montana (H98210-13-2-0001). This DCLCP course is designed to meet DoD (Department of Defense) total force language training needs in order to enable the DoD workforce to be better prepared and equipped with the target language, cultural and regional expertise. As a part of DoD Language Training Center, the course is open exclusively for U.S. DoD personnel who would not otherwise enroll into other UMT language course. This variable 2-9 credit Intermediate French course is designed for military students who have reached the proficiency level 0+/0+ on the Interagency Language Roundtable (ILR) scale. This course entails a total immersion in a French environment that will include four skills: listening, reading, speaking, and writing. Instruction will be conducted at the intermediate level to intermediate high (levels 0+ - 1+).

**MANS 212 - Intermediate Egyptian Arabic. 2-9 Credits.**

The Defense Critical Language and Culture Program (DCLCP) (of The University of Montana's Maureen and Mike Mansfield Center) provides intensive language and culture training for members of the National Guard, Reserve, and Active Duty utilizing a congressionally funded Language Training Center (LTC) contract through the Department of Defense Language and National Security Education Office (DLNSEO) —Grant title: Subaward 2013-LTC-Montana (H98210-13-2-0001). This DCLCP course is designed to meet DoD (Department of Defense) total force language training needs in order to enable the DoD workforce to be better prepared and equipped with the target language, cultural and regional expertise. As a part of DoD Language Training Center, the course is open exclusively for U.S. DoD personnel who would not otherwise enroll into other UMT language course. This variable 2-9 credit Intermediate Egyptian Arabic course is designed for military students who have reached the proficiency level 0+/0+ on the Interagency Language Roundtable (ILR) scale. This course entails a total immersion in a Egyptian Arabic environment that will include four skills: listening, reading, speaking, and writing. Instruction will be conducted at the intermediate level to intermediate high (levels 0+ - 1+).

**MANS 295 - Special Topics. 1-9 Credits.**

(R-12) Offered intermittently. Prereq., consent of instr. Experimental offerings of new courses or one-time offerings of current topics.

**MANS 296 - Independent Study. 1-6 Credits.**

(R-6) Offered intermittently.

**MANS 303 - Advanced Persian Farsi. 2-9 Credits.**

The Defense Critical Language and Culture Program (DCLCP) (of The University of Montana's Maureen and Mike Mansfield Center) provides intensive language and culture training for members of the National Guard, Reserve, and Active Duty utilizing a congressionally funded Language Training Center (LTC) contract through the Department of Defense Language and National Security Education Office (DLNSEO) —Grant title: Subaward 2013-LTC-Montana (H98210-13-2-0001). This DCLCP course is designed to meet DoD (Department of Defense) total force language training needs in order to enable the DoD workforce to be better prepared and equipped with the target language, cultural and regional expertise. As a part of DoD Language Training Center, the course is open exclusively for U.S. DoD personnel who would not otherwise enroll into other UMT language course. This variable 2-9 credit Advanced Persian Farsi course is designed for military students who have reached the proficiency level 1+/1+ on the Interagency Language Roundtable (ILR) scale. This course entails a total immersion in a Persian Farsi environment that will include four skills: listening, reading, speaking, and writing. Instruction will be conducted at the intermediate high level to advanced (levels 1+ - 2).

**MANS 304 - Advanced Levantine Arabic. 2-9 Credits.**

The Defense Critical Language and Culture Program (DCLCP) (of The University of Montana's Maureen and Mike Mansfield Center) provides intensive language and culture training for members of the National Guard, Reserve, and Active Duty utilizing a congressionally funded Language Training Center (LTC) contract through the Department of Defense Language and National Security Education Office (DLNSEO) —Grant title: Subaward 2013-LTC-Montana (H98210-13-2-0001). This DCLCP course is designed to meet DoD (Department of Defense) total force language training needs in order to enable the DoD workforce to be better prepared and equipped with the target language, cultural and regional expertise. As a part of DoD Language Training Center, the course is open exclusively for U.S. DoD personnel who would not otherwise enroll into other UMT language course. This variable 2-9 credit Advanced Levantine Arabic course is designed for military students who have reached the proficiency level 1+/1+ on the Interagency Language Roundtable (ILR) scale. This course entails a total immersion in a Levantine Arabic environment that will include four skills: listening, reading, speaking, and writing. Instruction will be conducted at the intermediate high level to advanced (levels 1+ - 2).

**MANS 305 - Advanced Modern Standard Arabic. 2-9 Credits.**

The Defense Critical Language and Culture Program (DCLCP) (of The University of Montana's Maureen and Mike Mansfield Center) provides intensive language and culture training for members of the National Guard, Reserve, and Active Duty utilizing a congressionally funded Language Training Center (LTC) contract through the Department of Defense Language and National Security Education Office (DLNSEO) —Grant title: Subaward 2013-LTC-Montana (H98210-13-2-0001). This DCLCP course is designed to meet DoD (Department of Defense) total force language training needs in order to enable the DoD workforce to be better prepared and equipped with the target language, cultural and regional expertise. As a part of DoD Language Training Center, the course is open exclusively for U.S. DoD personnel who would not otherwise enroll into other UMT language course. This variable 2-9 credit Advanced Modern Standard Arabic course is designed for military students who have reached the proficiency level 1+/1+ on the Interagency Language Roundtable (ILR) scale. This course entails a total immersion in a Modern Standard Arabic environment that will include four skills: listening, reading, speaking, and writing. Instruction will be conducted at the intermediate high level to advanced (levels 1+ - 2).

**MANS 306 - Advanced Indonesian. 2-9 Credits.**

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**MANS 307 - Advanced Korean. 2-9 Credits.**

The Defense Critical Language and Culture Program (DCLCP) (of The University of Montana's Maureen and Mike Mansfield Center) provides intensive language and culture training for members of the National Guard, Reserve, and Active Duty utilizing a congressionally funded Language Training Center (LTC) contract through the Department of Defense Language and National Security Education Office (DLNSEO) —Grant title: Subaward 2013-LTC-Montana (H98210-13-2-0001). This DCLCP course is designed to meet DoD (Department of Defense) total force language training needs in order to enable the DoD workforce to be better prepared and equipped with the target language, cultural and regional expertise. As a part of DoD Language Training Center, the course is open exclusively for U.S. DoD personnel who would not otherwise enroll into other UMT language course. This variable 2-9 credit Advanced Korean course is designed for military students who have reached the proficiency level 1+/1+ on the Interagency Language Roundtable (ILR) scale. This course entails a total immersion in a Korean environment that will include four skills: listening, reading, speaking, and writing. Instruction will be conducted at the intermediate high level to advanced (levels 1+ - 2).

**MANS 308 - Advanced Chinese Mandarin. 2-9 Credits.**

The Defense Critical Language and Culture Program (DCLCP) (of The University of Montana's Maureen and Mike Mansfield Center) provides intensive language and culture training for members of the National Guard, Reserve, and Active Duty utilizing a congressionally funded Language Training Center (LTC) contract through the Department of Defense Language and National Security Education Office (DLNSEO) —Grant title: Subaward 2013-LTC-Montana (H98210-13-2-0001). This DCLCP course is designed to meet DoD (Department of Defense) total force language training needs in order to enable the DoD workforce to be better prepared and equipped with the target language, cultural and regional expertise. As a part of DoD Language Training Center, the course is open exclusively for U.S. DoD personnel who would not otherwise enroll into other UMT language course. This variable 2-9 credit Advanced Chinese Mandarin course is designed for military students who have reached the proficiency level 1+/1+ on the Interagency Language Roundtable (ILR) scale. This course entails a total immersion in a Chinese Mandarin environment that will include four skills: listening, reading, speaking, and writing. Instruction will be conducted at the intermediate high level to advanced (levels 1+ - 2).

**MANS 309 - Advanced Russian. 2-9 Credits.**

The Defense Critical Language and Culture Program (DCLCP) (of The University of Montana's Maureen and Mike Mansfield Center) provides intensive language and culture training for members of the National Guard, Reserve, and Active Duty utilizing a congressionally funded Language Training Center (LTC) contract through the Department of Defense Language and National Security Education Office (DLNSEO) —Grant title: Subaward 2013-LTC-Montana (H98210-13-2-0001). This DCLCP course is designed to meet DoD (Department of Defense) total force language training needs in order to enable the DoD workforce to be better prepared and equipped with the target language, cultural and regional expertise. As a part of DoD Language Training Center, the course is open exclusively for U.S. DoD personnel who would not otherwise enroll into other UMT language course. This variable 2-9 credit Advanced Russian course is designed for military students who have reached the proficiency level 1+/1+ on the Interagency Language Roundtable (ILR) scale. This course entails a total immersion in a Russian environment that will include four skills: listening, reading, speaking, and writing. Instruction will be conducted at the intermediate high level to advanced (levels 1+ - 2).

**MANS 310 - Advanced Spanish. 2-9 Credits.**

The Defense Critical Language and Culture Program (DCLCP) (of The University of Montana's Maureen and Mike Mansfield Center) provides intensive language and culture training for members of the National Guard, Reserve, and Active Duty utilizing a congressionally funded Language Training Center (LTC) contract through the Department of Defense Language and National Security Education Office (DLNSEO) —Grant title: Subaward 2013-LTC-Montana (H98210-13-2-0001). This DCLCP course is designed to meet DoD (Department of Defense) total force language training needs in order to enable the DoD workforce to be better prepared and equipped with the target language, cultural and regional expertise. As a part of DoD Language Training Center, the course is open exclusively for U.S. DoD personnel who would not otherwise enroll into other UMT language course. This variable 2-9 credit Advanced Spanish course is designed for military students who have reached the proficiency level 1+/1+ on the Interagency Language Roundtable (ILR) scale. This course entails a total immersion in a Spanish environment that will include four skills: listening, reading, speaking, and writing. Instruction will be conducted at the intermediate high level to advanced (levels 1+ - 2).

**MANS 311 - Advanced French. 2-9 Credits.**

The Defense Critical Language and Culture Program (DCLCP) (of The University of Montana's Maureen and Mike Mansfield Center) provides intensive language and culture training for members of the National Guard, Reserve, and Active Duty utilizing a congressionally funded Language Training Center (LTC) contract through the Department of Defense Language and National Security Education Office (DLNSEO) —Grant title: Subaward 2013-LTC-Montana (H98210-13-2-0001). This DCLCP course is designed to meet DoD (Department of Defense) total force language training needs in order to enable the DoD workforce to be better prepared and equipped with the target language, cultural and regional expertise. As a part of DoD Language Training Center, the course is open exclusively for U.S. DoD personnel who would not otherwise enroll into other UMT language course. This variable 2-9 credit Advanced French course is designed for military students who have reached the proficiency level 1+/1+ on the Interagency Language Roundtable (ILR) scale. This course entails a total immersion in a French environment that will include four skills: listening, reading, speaking, and writing. Instruction will be conducted at the intermediate high level to advanced (levels 1+ - 2).

**MANS 312 - Advanced Egyptian Arabic. 2-9 Credits.**

The Defense Critical Language and Culture Program (DCLCP) (of The University of Montana's Maureen and Mike Mansfield Center) provides intensive language and culture training for members of the National Guard, Reserve, and Active Duty utilizing a congressionally funded Language Training Center (LTC) contract through the Department of Defense Language and National Security Education Office (DLNSEO) —Grant title: Subaward 2013-LTC-Montana (H98210-13-2-0001). This DCLCP course is designed to meet DoD (Department of Defense) total force language training needs in order to enable the DoD workforce to be better prepared and equipped with the target language, cultural and regional expertise. As a part of DoD Language Training Center, the course is open exclusively for U.S. DoD personnel who would not otherwise enroll into other UMT language course. This variable 2-9 credit Advanced Egyptian Arabic course is designed for military students who have reached the proficiency level 1+/1+ on the Interagency Language Roundtable (ILR) scale. This course entails a total immersion in a Egyptian Arabic environment that will include four skills: listening, reading, speaking, and writing. Instruction will be conducted at the intermediate high level to advanced (levels 1+ - 2).

**MANS 395 - Special Topics. 1-9 Credits.**

(R-12) Offered intermittently. Prereq., consent of instr. Experimental offerings of visiting professors, experimental offerings of new courses, or one-time offerings of current topics.

**MANS 398 - Internship. 1-6 Credits.****MANS 405 - Superior Modern Standard Arabic. 2-9 Credits.**

The Defense Critical Language and Culture Program (DCLCP) (of The University of Montana's Maureen and Mike Mansfield Center) provides intensive language and culture training for members of the National Guard, Reserve, and Active Duty utilizing a congressionally funded Language Training Center (LTC) contract through the Department of Defense Language and National Security Education Office (DLNSEO) —Grant title: Subaward 2013-LTC-Montana (H98210-13-2-0001). This DCLCP course is designed to meet DoD (Department of Defense) total force language training needs in order to enable the DoD workforce to be better prepared and equipped with the target language, cultural and regional expertise. As a part of DoD Language Training Center, the course is open exclusively for U.S. DoD personnel who would not otherwise enroll into other UMT language course. This variable 2-9 credit Superior Modern Standard Arabic course is designed for military students who have reached the proficiency level 2+/3+ on the Interagency Language Roundtable (ILR) scale. This course entails a total immersion in a Modern Standard Arabic environment that will include four skills: listening, reading, speaking, and writing. Instruction will be conducted at the advanced low level to superior level (levels 2+ - 4+). Level: Undergraduate

**MANS 494 - Mansfield Center Seminar. 1-9 Credits.**

(R-9) Offered intermittently. Prereq., consent of instr. A review and discussion of current research. Topics vary. Level: Undergraduate-Graduate

**MANS 495 - Special Topics. 1-9 Credits.**

(R-9) Offered intermittently. Experimental offerings of visiting professors, experimental offerings of new courses, or one-time offerings of current topics. Level: Undergraduate-Graduate

**MANS 496 - Independent Study. 1-6 Credits.**

(R-6) Offered intermittently. Prereq., consent of instr. Course material appropriate to the needs and objectives of the individual student. Level: Undergraduate

**MANS 591 - Special Topics. 1-12 Credits.**

(R-24) Offered intermittently. Experimental offerings of visiting professors, experimental offerings of new courses, or one-time offerings of current topics. Level: Graduate

## Master of Business Administration (MBA)

**MBA 603 - Integrated Project. 1 Credit.**

Offered spring. Coreq., BMGT 665. Restricted to students in the M.B.A. or Master of Accountancy programs. This is the capstone course of the MBA program and is offered during the last five weeks of spring semester. Students develop a business plan that requires the incorporation of knowledge from all other core MBA courses. Level: Graduate

**MBA 645 - Interpersonal Perspectives. 1-12 Credits.**

(R-12) Offered every term. Restricted to students in the M.B.A. or Master of Accountancy programs. Some classes are open to pre-MBA and pre-M-Acct. students. Selected topics cover leadership theory and practice, ethics in the workplace, and managerial processes such as motivation, communication, conflict resolution, negotiations, team building, critical thinking, goal setting, and building workforce commitment. Level: Graduate

**MBA 655 - Technology Seminar. 1-12 Credits.**

(R-12) Offered every term. Restricted to students in the M.B.A. or Master of Accountancy programs. Contemporary issues in information technology with emphasis on how technology is used in business organizations. Topics vary each term and may include electronic commerce on the internet, decision support technology, electronic media support, advanced spreadsheet applications, accounting applications and quality control systems. Level: Graduate

**MBA 691 - Special Topics. 1-9 Credits.**

(R-24) Offered intermittently. Experimental offerings of visiting professors, experimental offerings of new courses, or one-time offerings of current topics. Level: Graduate

**MBA 692 - Independent Study. 1-9 Credits.**

(R-9) Offered every term. Restricted to students in College of Business graduate programs. Course material appropriate to the needs and objectives of the individual student. Level: Graduate

**MBA 694 - Seminar. 1-15 Credits.**

(R-20) Offered every term. Restricted to students in College of Business graduate programs. Selected topics in business. Level: Graduate

**MBA 695 - Practicum. 1-6 Credits.**

(R-6) Practical hands-on experience with area organizations. Provides application of classroom learning. Level: Graduate

**MBA 698 - Internship. 1-3 Credits.**

(R-6) Offered every term. Restricted to students in College of Business graduate programs. Placements with private or governmental organizations for practical training in business. Written reports required. Level: Graduate

**MBA 699 - Thesis. 1-6 Credits.**

(R-6) Offered every term. Restricted to students in College of Business graduate programs. Preparation of a thesis. Level: Graduate

## Mathematics (M)

**M 065 - Prealgebra. 3 Credits.**

Offered every term. Offered at Missoula College. Arithmetic and basic algebra skills needed for Introductory Algebra. Topics include integers and rational numbers, decimals and percentages with applications, ratios and proportions with applications, single variable linear equations with applications, introduction to graphing, exponents, factoring, and an introduction to polynomials. Credit does not count toward a certificate or degree. Credit does not count toward Associate of Arts, Associate of Applied Science, or Baccalaureate degrees.

**M 090 - Introductory Algebra. 3 Credits.**

Offered every term. Offered at Missoula College. Prereq., M 065 or appropriate math placement score. Review of arithmetic principles of integers and rational numbers, linear equations in one or two unknowns, systems of linear equations and operations with polynomials and rational expressions. Credit does not count toward an Associate of Arts, Associate of Applied Science, or Baccalaureate degree.



**M 095 - Intermediate Algebra. 3 Credits.**

Offered autumn and spring. Offered at Missoula College. Prereq., M 090 or appropriate math placement score. Topics include linear equations, inequalities, applications and graphing; polynomials; radicals, rational exponents and complex numbers; quadratic equations. Graphing calculator required. Credit does not count toward Associate of Arts or Baccalaureate degrees.

**M 105 - Contemporary Mathematics. 3-4 Credits.**

Offered every term. Prereq., M 090 or M 095 with a grade of C- or better; or EdReady placement level 2; or M01-Maplesoft Arithmetic score  $\geq 16$ ; or ACT score of 21; or SAT score of 530 (with the new test); or ACT score of 20 and HS GPA 3.2; or SAT score of 510 and HS GPA 3.2. An introduction to mathematical ideas and their impact on society. Intended for students wishing to satisfy the general education mathematics requirement. Co-Requisite Support sections of M 105 are 4 credits; they are offered autumn and spring. Co-requisite support section prerequisites as follows: EdReady placement level 1 or consent of instructor. Gen Ed Attributes: Math Competency

**M 109 - Indigenous Ways of Knowing in Science, Technology, Engineering, and Mathematics. 3 Credits.**

Offered fall and spring. Over hundreds of generations, indigenous communities have developed sophisticated practices and ways of knowing in Science, Technology, Engineering, and Mathematics (STEM). Understanding these practices and ways of knowing leads all students to have a richer understanding of all STEM disciplines. This course introduces indigenous ways of knowing in STEM, including traditional ecological knowledge and indigenous perspectives on the relationships between human and other-than-human communities. The course also explores the connections between indigenous and western ways of knowing. The course is offered in collaboration with Montana American Indian Nations and may include guest lectures from elders and other knowledge keepers and place-based learning on community homelands. Gen Ed Attributes: Cultural & International Diversity

**M 111 - Technical Mathematics. 3 Credits.**

Offered autumn and spring. Offered at Missoula College. Designed to provide the mathematical background necessary for success in the industrial areas. Topics covered include percent, ratio proportion, formula evaluation, basic algebra and geometry concepts, trigonometry, measurement, statistics, and graphing. Markdowns, inventory turnover, and other basic formulas. Credit does not count toward Associate of Arts or Baccalaureate degrees.

**M 115 - Probability and Linear Mathematics. 4 Credits.**

Offered every term. Prereq., M 090 or M 095 with a grade of C- or better; or EdReady placement level 2; or M01-Maplesoft Arithmetic score  $\geq 16$ ; or ACT score of 21; or SAT score of 530 (with the new test); or ACT score of 20 and HS GPA 3.2; or SAT score of 510 and HS GPA 3.2. Systems of linear equations and matrix algebra. Introduction to probability with emphasis on models and probabilistic reasoning. Examples of applications of the material in many fields. Co-Requisite Support sections of M 115 are 4 credits; they are offered autumn and spring. Co-requisite support section prerequisites as follows: EdReady placement level 1.5; or ACT score of 18; or SAT score of 460 (with the new test); or ACT score of 15 and HS GPA 3.0; or SAT score of 400 and HS GPA 3.0; or consent of instructor.

Gen Ed Attributes: Math Competency

**M 118 - Mathematics for Music Enthusiasts. 3 Credits.**

Offered autumn and/or spring. Prereq. M 090 with a grade of B- or better; or M 095 with a grade of C- or better; or EdReady placement level 2; or M01-Maplesoft Arithmetic score  $\geq 18$ ; or ACT score of 21; or SAT score of 530 (with the new test); or ACT score of 20 and HS GPA 3.2; or SAT score of 510 and HS GPA 3.2; and elementary music background. An introduction to the interplay between mathematics and music. Course intended for Music majors/minors, and others with musical backgrounds/interests, who wish to satisfy the general education mathematics requirement.

Gen Ed Attributes: Math Competency

**M 121 - College Algebra. 3,4 Credits.**

Offered every term. Prereq., M 095; or EdReady placement level 3; or M02-Maplesoft Algebra score  $\geq 14$ ; or ACT score of 23; or SAT score of 560 (with the new test); or ACT score of 21 and HS GPA 3.4; or SAT score of 530 and HS GPA 3.4. The central theme of College Algebra is functions as models of change. This course fulfills the prerequisites for M 122 (College Trigonometry) and for M 162 (Applied Calculus). Intended to strengthen algebra skills. The study of functions and their inverses; polynomial, rational, exponential, and logarithmic functions. Credit not allowed for both M 121 and M 151. Co-Requisite Support sections of M 121 are 4 credits; they are offered autumn and spring. Co-requisite support section prerequisites as follows: EdReady placement level 2.5; M01-Maplesoft Arithmetic score  $\geq 16$ ; or M02-Maplesoft Algebra score  $\geq 10$ ; or ACT score of 22; or SAT score of 540 (with the new test); or ACT score of 21 and HS GPA 3.4; or SAT score of 530 and HS GPA 3.4; if the student is fresh out of high school, completion of Algebra II or beyond; or consent of instructor.

Gen Ed Attributes: Math Competency

**M 122 - College Trigonometry. 3 Credits.**

Offered autumn and spring. Prereq., M 121. Preparation for calculus based on college algebra. Review of functions and their inverses. Trigonometric functions and identities, polar coordinates and an optional topic such as complex numbers, vectors or parametric equations. Credit not allowed for both M 122 and M 151.

Gen Ed Attributes: Math Competency

**M 132 - Numbers and Operations for Elementary School Teachers. 3 Credits.**

Offered autumn and spring. Prereq., M 095; or M 115; or EdReady placement level 3; or M02-Maplesoft Algebra score  $\geq 14$ ; or ACT score of 23; or SAT score of 560 (with the new test); or ACT score of 21 and HS GPA 3.5; or SAT score of 530 and HS GPA 3.5. The study of number and operations for prospective elementary and middle school teachers, including whole numbers, decimals, fractions, percent, integers, operations, numeration systems, and problem solving.

Gen Ed Attributes: Math Competency

**M 133 - Geometry and Measurement for Elementary School Teachers. 3 Credits.**

Offered autumn and spring. Prereq., M 132. The study of geometry and geometric measurement for prospective elementary and middle school teachers, including synthetic, transformational, and coordinate geometry, constructions, congruence and similarity, 2-dimensional and 3-dimensional measurement, and problem solving.

Gen Ed Attributes: Math Competency



**M 151 - Precalculus. 4 Credits.**

Offered autumn and spring. Prereq., EdReady placement level 4; or M02-Maplesoft Algebra score  $\geq 17$ ; or M03-Maplesoft Calculus score  $\geq 10$ ; or ACT score of 25; or SAT score of 590 (with the new test); or ACT score of 23 and HS GPA 3.6 and HS Precalc or Calculus with a B- or better; or SAT score of 560 and HS GPA 3.5 and HS Precalc or Calculus with a B- or better. A one semester preparation for calculus (as an alternative to M 121 - M 122. Functions of one real variable are introduced in general and then applied to the usual elementary functions, namely polynomial and rational functions, exponential and logarithmic functions, trigonometric functions, and miscellaneous others. Inverse functions, polar coordinates and trigonometric identities are included. Credit not allowed for both M 151 and M 121 or M 122.

Gen Ed Attributes: Math Competency

**M 162 - Applied Calculus. 4 Credits.**

Offered autumn and spring. Prereq., EdReady placement level 4; or M02-Maplesoft Algebra score  $\geq 19$ ; or M03-Maplesoft Calculus score  $\geq 10$ ; or one of M 121, M 122 or M 151; or ACT score of 25; or SAT score of 590 (with the new test); or ACT score of 23 and HS GPA 3.6 and HS Precalc or Calculus with a B- or better; or SAT score of 560 and HS GPA 3.6 and HS Precalculus or Calculus with a B- or better. Introductory course surveying the principal ideas of differential and integral calculus with emphasis on applications and computer software. Mathematical modeling in discrete and continuous settings. Intended primarily for students who do not plan to take higher calculus.

Gen Ed Attributes: Math Competency

**M 171 - Calculus I. 4 Credits.**

Offered autumn and spring. Prereq., M 122; or M 151; or Maplesoft Calculus score  $\geq 15$ ; or UM WebWork Calculus Placement score  $\geq 11$ . Differential calculus, including limits, continuous functions, Intermediate Value Theorem, tangents, linear approximation, inverse functions, implicit differentiation, extreme values and the Mean Value Theorem. Integral Calculus including antiderivatives, definite integrals, and the Fundamental Theorem of Calculus.

Gen Ed Attributes: Math Competency

**M 172 - Calculus II. 4 Credits.**

Offered autumn and spring. Prereq., M 171. Techniques of Integration. Area computations. Improper integrals. Infinite series and various convergence tests. Power series. Taylor's Formula. Polar coordinates. Parametric curves.

Gen Ed Attributes: Math Competency

**M 191 - Special Topics. 1-6 Credits.**

(R-6) Offered autumn and spring. Experimental offerings of visiting professors, experimental offerings of new courses, or one time offerings of current topics.

**M 192 - Independent Study. 1-6 Credits.**

(R-6) Offered intermittently. Course material appropriate to the needs and objectives of the individual student.

**M 210 - Introduction to Mathematical Software. 3 Credits.**

Offered spring. Prereq., M 162 or M 171. Software packages useful for doing and writing mathematics. Introduction to a computer algebra system (such as Maple or Mathematica), a numerical package (such as MATLAB or R), and elementary programming. Writing and communicating mathematics using the mathematical typesetting system LaTeX.

**M 221 - Introduction to Linear Algebra. 4 Credits.**

Offered autumn and spring. Prereq., M 172. Vectors in the plane and space, systems of linear equations and Gauss-Jordan elimination, matrices, determinants, eigenvalues and eigenvectors, vector spaces, linear transformations. Calculators and/or computers used where appropriate.

**M 225 - Introduction to Discrete Mathematics. 3 Credits.**

Offered autumn. Prereq., M 162 or M 171. Mathematical concepts used in computer science with an emphasis on mathematical reasoning and proof techniques. Elementary logic, sets, functions and relations, combinatorics, mathematical induction, recursion and algorithms. Mathematics majors should take M 307 instead of M 225.

**M 234 - Higher Mathematics for Elementary School Teachers. 3 Credits.**

Offered autumn and spring. Prereq., M 132. The study of algebra, number theory, probability and statistics for prospective elementary and middle school teachers, including proportional reasoning, functions, elementary number theory, statistical modeling and inference, and elementary probability theory.

**M 263 - Applied Differential Equations. 3 Credits.**

Offered intermittently. Prereq., M 162, M 171 or M 181. Knowledge of basic trigonometry is expected. Solution of ordinary differential equations and systems with emphasis on applications, numerical methods and computer software.

**M 273 - Multivariable Calculus. 4 Credits.**

Offered autumn and spring. Prereq., M 172. Calculus of functions of several variables; differentiation and elementary integration. Vectors in the plane and space.

**M 274 - Introduction to Differential Equations. 4 Credits.**

Offered autumn. Prereq., M 273. Ordinary differential equations. Systems of linear differential equations from a matrix viewpoint. Series solutions. Existence and uniqueness for initial value problems. Numerical methods. Stability and selected topics. Use of computer software to obtain and visualize solutions of ODEs.

**M 291 - Special Topics. 1-3 Credits.**

(R-9) Offered autumn and spring. Experimental offerings of visiting professors, experimental offerings of new courses, or one-time offerings of current topics.

**M 292 - Independent Study. 1-9 Credits.**

(R-9) Offered autumn and spring. Course material appropriate to the needs and objectives of the individual student.

**M 294 - Seminar. 1-9 Credits.**

(R-9) Offered intermittently. A review and discussion of current research. Topics vary.

**M 295 - Practicum. 1-6 Credits.**

Supervised, practical experience in a professional setting relevant to the student's field of study.

**M 300 - Undergraduate Mathematics Seminar. 1 Credit.**

(R-3) Offered autumn. Prereq., M 171. Discussion seminar focused on topics and issues of interest to students in the mathematical sciences. Course graded only on CR/NCR basis.

**M 301 - Teaching Mathematics with Technology. 3 Credits.**

Offered autumn, odd-numbered years. Prereq., M 162 or M 171. Discrete and continuous mathematical models from a variety of disciplines using appropriate technology.

**M 307 - Introduction to Abstract Mathematics. 3 Credits.**

Offered autumn and spring. Prereq., M 172. Designed to prepare students for upper-division proof-based mathematics courses. Topics include proof techniques, logic, sets, relations, functions and axiomatic methods. Students planning to take both M 221 and M 307 are encouraged to take M 221 first.

**M 326 - Number Theory. 3 Credits.**

Offered spring. Prereq., M 225 or M 307. Congruences, Diophantine equations, properties of primes, quadratic residues, continued fractions, algebraic numbers.

**M 361 - Discrete Optimization. 3 Credits.**

Offered autumn. Prereq., M 162 or M 172. M 221 or M 225 recommended. Intended for non-mathematics majors as well as mathematics majors. Introduction to discrete optimization and modeling techniques with applications. Topics include combinatorics and graph theory, including enumeration, graph algorithms, matching problems, and networks.

**M 362 - Linear Optimization. 3 Credits.**

Offered spring. Prereq., M 162 or M 172. M 221 recommended. M 363 recommended as a corequisite. Intended for non-mathematics majors as well as majors. Introduction to linear programming and modeling techniques with applications. Topics include the simplex method, duality, sensitivity analysis and network models.

**M 363 - Linear Optimization Laboratory. 1 Credit.**

Offered spring. Coreq., M 362. Introduction to linear optimization software.

**M 381 - Advanced Calculus. 3 Credits.**

Offered autumn even-numbered years. Prereq., M 307. Rigorous development of single-variable calculus with formal proof. Functions, sequences, limits, continuity, differentiation, and integration.

**M 391 - Special Topics. 1-9 Credits.**

(R-9) Offered autumn and spring. Experimental offerings of visiting professors, experimental offerings of new courses, or one-time offerings of current topics.

**M 392 - Independent Study. 1-9 Credits.**

(R-9) Offered autumn and spring. Course material appropriate to the needs and objectives of the individual student.

**M 394 - Seminar. 1-9 Credits.**

(R-9) Offered autumn and spring. A review and discussion of current research. Topics vary.

**M 398 - Internship. 1-6 Credits.**

(R-6) Offered autumn and spring. Extended classroom experience that provides practical application of classroom learning during placements off campus. Prior approval must be obtained from the faculty supervisor. A maximum of 6 credits of Internship (198, 298, 398, 498) may count toward graduation.

**M 412 - Partial Differential Equations. 3 Credits.**

Offered spring. Prereq., M 274. Fourier series, Sturm-Liouville and boundary value problems. Partial differential equations: Cauchy problems and the method of characteristics, separation of variables and Laplace transform methods. Numerical methods and selected topics. M 418 computer lab recommended. Level: Undergraduate-Graduate

**M 414 - Deterministic Models. 3 Credits.**

Offered spring. Prereq., M 263 or M 274. Linear and nonlinear difference and differential equations: stability, phase-plane analysis, oscillatory behavior, limit cycles, and chaos. Eigenvalues and eigenfunctions. Emphasis on models in biology. Level: Undergraduate-Graduate

**M 429 - History of Mathematics. 3 Credits.**

Offered spring. Prereq., M 307. Historical study of the development of mathematics from the Egyptian and Babylonian eras to the 20th century. Level: Undergraduate-Graduate  
Gen Ed Attributes: Writing in the Disciplines

**M 431 - Abstract Algebra I. 4 Credits.**

Offered autumn. Prereq., M 221 and M 307. An introduction to modern ideas of algebra through the study of groups, rings, and fields. Level: Undergraduate-Graduate

**M 432 - Abstract Algebra II. 4 Credits.**

Offered intermittently in spring. Prereq., M 431. Continues the investigation of groups, rings, and fields begun in M 431. Further topics include vector spaces and field extensions. Level: Undergraduate-Graduate

**M 439 - Euclidean and NonEuclidean Geometry. 3 Credits.**

Offered autumn. Prereq., M 307. Euclidean geometry from a rigorous, axiomatic viewpoint and Non-Euclidean geometries chosen from Lobachevskian, projective, finite and Riemannian. Level: Undergraduate-Graduate

**M 440 - Numerical Analysis. 3 Credits.**

Offered autumn. Prereq., M 221 and M 274. Some experience with computer programming is expected. Topics include: error analysis, approximation and interpolation, numerical solution of linear and non-linear equations, numerical optimization, numerical integration of ordinary and partial differential equations, and applications. Level: Undergraduate

**M 461 - Data Science Analytics. 3 Credits.**

Offered autumn. Prereq., STAT 342 or STAT 421; and M 221 or M 273. This is a methods course supporting the Big Data Certificate Program. The course provides the students with the essential tools of data analytics. The content consists of data dictionaries and data mappings, distributed computing, and related methods. Other topics may include data visualization, regression, and cluster analysis. This course may be used to satisfy the course requirements of the Big Data Certificate Program. Level: Undergraduate. Co-convenes with M 561.

**M 462 - Theoretical Basics of Big Data Analytics and Real Time Computation Algorithms. 3 Credits.**

Offered spring. Prereq., M 221. The main goal of this course is to provide students with a unique opportunity to acquire conceptual knowledge and theoretical background behind mathematical tools applicable to Big Data Analytics and Real Time Computations. Specific challenges of Big Data Analytics, e.g., problems of extracting, unifying, updating, and merging information, and processing of highly parallel and distributed data, will be reviewed. The tools for Big Data Analytics, such as regression analysis, linear estimation, calibration problems, real time processing of incoming (potentially infinite) data, will be studied in more detail. It will be shown how these approaches can be transformed to conform to the Big Data demands. Level: Undergraduate

**M 467 - Data Science Projects. 3 Credits.**

Offered spring. This course is a practicum course aimed at developing skills needed to solve data science problems facing industry and academics. Problems are brought to the class by local technology-oriented businesses and university researchers. Lecture topics include project management, interacting with clients, and written and oral presentation of results. Additional lecture topics will be selected to address the specific problems brought to the class and may cover data reduction methods, algorithm design and predictive analytics. Level: Undergraduate. Co-convenes with M 567.

**M 472 - Introduction to Complex Analysis. 4 Credits.**

Offered spring. Prereq., M 273 or M 307. Analytic functions, complex integration, singularities and application to contour integration, harmonic functions, spaces of analytic functions. Level: Undergraduate-Graduate

**M 473 - Introduction to Real Analysis. 4 Credits.**

Offered autumn odd-numbered years. Prereq., M 273 and M 307. Theory of metric spaces and point set topology, Riemann-Stieltjes integral, sequences and series of functions. Stone-Weierstrass theorem, theorem of Arzela-Ascoli, introduction to Lebesgue integration. Level: Undergraduate-Graduate

**M 485 - Graph Theory. 3 Credits.**

Offered spring. Prereq., M 307 or M 361. Theory and applications of graphs. Topics chosen from trees, matchings, connectivity, coloring, planarity, Ramsey theory, random graphs, combinatorial designs and matroid theory. Level: Undergraduate-Graduate

**M 490 - Undergraduate Research. 1-4 Credits.**

(R-12) Offered every term. Undergraduate research in the mathematical sciences under the direction of a faculty member. Graded credit/no credit. Level: Undergraduate

**M 491 - Special Topics. 1-9 Credits.**

(R-9) Offered autumn and spring. Experimental offerings of visiting professors, experimental offerings of new courses, or one-time offerings of current topics. Level: Undergraduate-Graduate

**M 492 - Independent Study. 1-9 Credits.**

(R-9) Offered autumn and spring. Course material appropriate to the needs and objectives of the individual student. Level: Undergraduate

**M 494 - Seminar. 1-9 Credits.**

(R-9) Offered autumn and spring. A review and discussion of current research. Topics vary. Level: Undergraduate

**M 498 - Internship. 1-6 Credits.**

Offered autumn and spring. Extended classroom experience that provides practical application of classroom learning during placements off campus. Prior approval must be obtained from the faculty supervisor. A maximum of 6 credits of Internship (198, 298, 398, 498) may count toward graduation. Level: Undergraduate

**M 499 - Senior Thesis. 1-12 Credits.**

(R-12) Offered autumn and spring. Prereq., WRIT 101. Senior thesis for mathematics majors and/or Watkins Scholars. Level: Undergraduate Gen Ed Attributes: Writing in the Disciplines

**M 500 - Current Mathematical Curricula. 3 Credits.**

Offered intermittently. Restricted to students seeking teacher certification and graduate students in Mathematics. Analysis of contemporary materials for secondary school mathematics: the goals, the mathematical content, alternative methodologies, and curriculum evaluation. Level: Graduate

**M 501 - Technology in Mathematics for Teachers. 3 Credits.**

Offered intermittently. Restricted to students seeking teacher certification. Technology usage when it is appropriate and when it is not. Experience is provided with scientific calculators, graphing utilities, computers, and identification of exemplary software. Level: Graduate

**M 504 - Topics in Mathematics Education. 1-12 Credits.**

(R-12) Offered intermittently. Topics of current interest which may include calculus, number theory, probability and statistics, geometry, or algebra, at a level suitable for teachers. Level: Graduate

**M 510 - Problem Solving for Teachers. 3 Credits.**

Offered intermittently. Restricted to students seeking teacher certification. Strategies for problem solving, problem posing in a variety of situations, modeling and applications. Problems are selected from various areas of mathematics. Level: Graduate

**M 511 - Advanced Mathematical Methods I. 3 Credits.**

Offered autumn odd-numbered years. Prereq., M 274, and M 412 or M 414. Methods in applied mathematics related to the qualitative and quantitative solution of nonlinear and differential integral equations, dynamical systems, and perturbation methods. Applications of these methods to other sciences. Level: Graduate

**M 512 - Advanced Mathematical Methods II. 3 Credits.**

Offered spring even-numbered years. Prereq., M 511. Continuation of M 511. Level: Graduate

**M 514 - Topics in Applied Mathematics. 1-12 Credits.**

(R-12) Offered autumn even-numbered years. Prereq., M 511 and M 512. Topics of current interest in applied mathematics, mathematical modeling, dynamic modeling, and optimal management in stochastic or deterministic environments. Level: Graduate

**M 521 - Advanced Algebra I. 3 Credits.**

Offered alternate years in autumn. M 432 recommended. Topics covered include group theory, field theory, and Galois theory. Level: Graduate

**M 522 - Advanced Algebra II. 3 Credits.**

Offered alternate years in spring. Prereq., M 521. Continuation of M 521; rings, modules, commutative algebra, and further topics. Level: Graduate

**M 524 - Topics in Algebra. 3 Credits.**

(R-12) Offered alternate years in fall and spring. Topics chosen from algebra and related areas, for example from commutative algebra, algebraic geometry, linear algebra, group theory, ring theory, or number theory. Level: Graduate

**M 531 - Topology. 3 Credits.**

Offered autumn even-numbered years. Prereq., M 473. Set theory, topological spaces, metrizability, continuous mappings and selected topics. Level: Graduate

**M 532 - Algebraic Topology. 3 Credits.**

Offered spring alternate years. Introduction to algebraic topology through one or more topics chosen from the fundamental group and higher homotopy groups, singular homology, and simplicial homology. Level: Graduate

**M 540 - Numerical Methods for Computational & Data Science. 3 Credits.**

Prereq., M 221 and M 274. Some experience with computer programming is expected. Topics include: error analysis; approximation and interpolation; numerical solution of linear and non-linear equations; numerical optimization; numerical integration of ordinary and partial differential equations. This course will focus specifically on techniques from numerical analysis that have applications in modern computational and data science. Students will be expected to learn the theoretical underpinnings of the methods they use, as well as to implement the methods in computer code. Level: Graduate

**M 551 - Real Analysis. 3 Credits.**

Offered autumn even-numbered years. Prereq., M 473 or M 472. Measure theory, abstract integration theory, theory of  $L_p$ -spaces. Level: Graduate

**M 555 - Functional Analysis. 3 Credits.**

Offered autumn odd-numbered years. Normed linear spaces, linear functionals, separation theorems, topological linear spaces, weak topologies, dualities. Level: Graduate

**M 561 - Advanced Data Science Analytics. 3 Credits.**

Offered autumn. Prereq., STAT 342 or STAT 421. Topics include: data mappings and data reduction, scalable algorithms and associative statistics, Hadoop and MapReduce, data visualization, linear regression methods, healthcare analytics and cluster analysis. Level: Graduate. Co-convenes with M 461.

**M 562 - Advanced Theoretical Big Data Analytics. 3 Credits.**

Offered spring. Prereq., M 540 and M 561. Topics include: The notion of canonical information, linear experiment and optimal estimation problem, manipulating information in different forms: raw vs. explicit vs. canonical, Gauss-Markov theorem, calibration problem; real time signal processing with finite and infinite field of view, time series processing; balancing estimation accuracy, delay and computational demands. Image processing with infinite field of view; parallel processing of signals and images. Level: Graduate

**M 564 - Topics in Analysis. 3 Credits.**

(R-12) Offered spring. Research projects or topics in analysis. May include but not restricted to Banach algebras, Fourier analysis, Harmonic analysis, Hilbert space theory, integral equations, or operator theory. Level: Graduate

**M 567 - Advanced Big Data Analytics Projects. 3 Credits.**

Offered spring. Prereq., STAT 341 and M 221 or M 273 and one of M 461 or M 462. In this course, local businesses and University researchers will contribute practical problems from data science to the class. Students will learn how to work in teams to develop solutions to the contributed problems, graduate students will serve as lead investigators on these teams. Learning outcomes include: Develop data reduction algorithms for complex problems and varied data. Apply mathematical, statistical, and computational methods used in solving big data problems. Extend and adapt core algorithms to specific problems. Work with a client towards understanding client objectives and meeting the objectives. Propose alternative paths towards the solution when necessary. Plan a project (determine what is realistic and achievable within a time frame). Document progress and elicit feedback from clients. Write concise and focused progress reports. Efficiently allocate workload among team members. Effectively communicate and participate as a team member. Level: Graduate. Co-convenes with M 467.

**M 581 - Combinatorics. 3 Credits.**

Offered autumn odd-numbered years. Theory and applications of discrete mathematics. Topics chosen from enumeration, combinatorial analysis, and graph theory. Level: Graduate

**M 582 - Optimization. 3 Credits.**

Offered autumn even-numbered years. Theory and applications of optimization. Topics chosen from linear, non-linear, and discrete optimization, including duality theory, convexity and networks. Level: Graduate

**M 584 - Topics in Combinatorics and Optimization. 3 Credits.**

(R-12) Offered spring odd-numbered years. Topics chosen from the areas of combinatorics and optimization. May include classical problems, current trends, research interests or other topics chosen by the instructor. Level: Graduate

**M 590 - Research. 1-12 Credits.**

(R-12) Offered autumn and spring. Directed individual research and study appropriate to the background and objectives of the student. Level: Graduate

**M 591 - Special Topics. 1-12 Credits.**

(R-24) Offered autumn and spring. Experimental offerings of visiting professors, experimental offerings of new courses, or one-time offerings of current topics. Level: Graduate

**M 592 - Independent Study. 1-12 Credits.**

(R-12) Offered autumn and spring. Course material appropriate to the needs and objectives of the individual student. Level: Graduate

**M 598 - Internship. 1-12 Credits.**

(R-12) Offered autumn and spring. Extended classroom experience that provides practical application of classroom learning during placements off campus. Prior approval must be obtained from the faculty supervisor. Level: Graduate

**M 599 - Thesis/Professional Paper. 1-10 Credits.**

(R-10) Offered autumn and spring. Preparation of a thesis, manuscript, or professional paper based on research for presentation and/or publication. Level: Graduate

**M 600 - Mathematics Colloquium. 1-3 Credits.**

(R-3) Offered autumn and spring. Presentations of research topics in mathematics and related fields. Level: Graduate

**M 602 - Teaching College Mathematics. 3 Credits.**

Topics include publishing, grant writing, writing in mathematics classes, media use in mathematics, evaluation and assessment of curricular materials and programs, instructional methods in university mathematics courses, and other selected topics. Level: Graduate

**M 605 - Learning Theories in Mathematics. 3 Credits.**

How children learn mathematical content and processes. Models of mental development, concept formation, problem solving, reasoning, and creative thinking. Level: Graduate

**M 609 - Research Methods in Mathematics Education. 3 Credits.**

Resources for learning of reported research, critical reviews of research, quantitative and qualitative processes. Level: Graduate

**M 610 - Graduate Seminar in Applied Mathematics. 1-12 Credits.**

(R-12) Offered autumn and spring. A review and discussion of current research. Level: Graduate

**M 620 - Graduate Seminar in Algebra. 1-12 Credits.**

(R-12) Offered autumn and spring. A review and discussion of current research. Level: Graduate

**M 650 - Graduate Seminar in Analysis. 1-12 Credits.**

(R-12) Offered autumn and spring. A review and discussion of current research. Level: Graduate

**M 680 - Graduate Seminar in Combinatorics and Optimization. 1-12 Credits.**

(R-12) Offered autumn and spring. A review and discussion of current research. Level: Graduate

**M 691 - Special Topics. 1-6 Credits.**

(R-24) Offered intermittently. Experimental offerings of visiting professors, experimental offerings of new courses, or one-time offerings of current topics. Level: Graduate

**M 694 - Seminar. 1-12 Credits.**

(R-12) Offered autumn and spring. A review and discussion of current research. Topics vary. Level: Graduate

**M 698 - Internship. 1-12 Credits.**

(R-12) Offered autumn and spring. Supervised Teaching Internship. Level: Graduate

**M 699 - Dissertation. 1-9 Credits.**

(R-9) Offered autumn and spring. Level: Graduate



## Media Arts (MART)

### **MART 100 - Fundamentals of Esports. 1 Credit.**

(R-4) Offered every term. Class meets on Mountain Campus in the U.C. Game Room. Explore the basics of various esports including rules, concepts, strategies, and mechanics. Semester concludes with a gaming tournament. Students must bring their own headset for team play. Graded Credit/No Credit based on participation and attendance policy. Students may include up to, but not more than, 4 credits earned in MART 100 and all other ACT 100-179 activity courses in the total number of credits required for graduation.

### **MART 101L - Intro to Media Arts. 3 Credits.**

Offered autumn and spring. How do narrative and literary techniques manifest themselves in the media arts? Using the language of film as a starting point, students analyze storytelling through various media, including movies, television, the Internet, animation and video games. Gen Ed Attributes: Literary & Artistic Studies

### **MART 112A - Introduction to Film Editing. 3 Credits.**

Offered autumn and spring. Study of the history, process and philosophy of narrative film/video editing. Gen Ed Attributes: Expressive Arts

### **MART 120 - Creative Coding I. 3 Credits.**

Offered autumn and spring. This course focuses on the fundamentals of programming and its connection to the creative and expressive possibilities of media art. Visual and scripting languages provide the foundation by which stories and games are created.

### **MART 189 - Esports Team. 1-4 Credits.**

(R-4) Students may include up to but not more than 4 credits earned in ACT/ACTV/HHP 100-299 or MART 100/189 activity courses in the total number of credits required for graduation. Students graded Credit/No Credit based on participation and a strict attendance policy.

### **MART 191 - Special Topics. 1-6 Credits.**

(R-6) Offered intermittently. Experimental offerings of visiting professors, experimental offerings of new courses, or one-time offerings of current topics.

### **MART 201H - History of Digital Arts & Culture. 3 Credits.**

Offered every term. This course places current digital technologies within a historical context in order to understand and articulate how the digital world in which we live, and the tools with which we create, are connected to people, cultures and times before the latest innovations were even conceived. This knowledge will prepare students to engage with creative professionals across areas of expertise and to have a broader sense of their lives as citizens in a globally and historically connected world. Gen Ed Attributes: Historical Studies

### **MART 210 - Creation of Media Story. 3 Credits.**

Offered autumn. Restricted to students in Media Arts, Game Design and Interactive Media, and Sound Design and Media Technology. Preparatory to writing in visual story forms (screenplay, animation, games) students immerse themselves in writing and drawing improvisations through journaling and short project creation.

### **MART 214 - Digital Publishing & Design. 3 Credits.**

Offered autumn. Offered at Missoula College. A comprehensive foundation of layout and design principles to integrate digital media essential for effective print-based and web-based business publications.

### **MART 220 - Creative Coding II. 3 Credits.**

Offered intermittently. Prereq., MART 120. Building on the techniques, theory, and skills acquired in Creative Coding I, students create artworks and experiences focusing on physical computing. These include, but not limited to: Raspberry Pi, Arduino, Virtual Reality and Augmented Reality.

### **MART 232 - Interactive Web II. 3 Credits.**

Offered autumn and spring. Offered at Missoula College. Provides a background and foundation skills required for designing and implementing Web sites for public and private organizations. Marketing and design techniques are applied using state-of-the-art software.

### **MART 245 - Sound Production & Design Fundamentals. 3 Credits.**

Offered every semester. Sound Production & Design Fundamentals introduces students to the fields of sound production, sound design, audio technology, and sonic art. This course is intended as a foundation course to create shared terminology, skill sets, aesthetics, and techniques for students to utilize as they take additional sound design, sonic art, or audio courses within the School of Visual and Media Arts (SVMA) or larger College of the Arts and Media (CAM). This course includes the study of notable examples in sound art/design, music, intermedia, and installation. Starting with listening, students will examine the practices and innovations that led to the most current ideas about sound art and sound design and from there develop contemporary analytical methods for exploring sound as a creative medium. Additionally, students will apply this knowledge to the creation of their own sonic art works. Gen Ed Attributes: Expressive Arts

### **MART 255 - Photoshop: Art and Design. 3 Credits.**

Offered spring. This project-based course explores a variety of design principles and techniques through Adobe Photoshop.

### **MART 256 - Illustrator: Vector and Layout Design. 3 Credits.**

Offered every term. An introduction to the basic principles and techniques of still image design and manipulation using Adobe Illustrator, the industry leading application for creating vector-based content. This project-based course demystifies the powerful Illustrator toolsets and workspace and enables students to actualize their ideas by helping them to develop an efficient production process. No prerequisites required.

### **MART 291 - Special Topics. 1-6 Credits.**

(R-6) Offered intermittently. Experimental offerings of visiting professors, experimental offerings of new courses, or one-time offerings of current topics.

### **MART 292 - Independent Study. 1-6 Credits.**

(R-6) Offered intermittently. Course material appropriate to the needs and objectives of the individual student.

### **MART 300 - Visions of Film. 3 Credits.**

Offered spring. Study of major film theories that led to the constitution of visual film language and their application in contemporary film narrative and direction.

Gen Ed Attributes: Writing Across the Curriculum

### **MART 302 - Intro to Motion Design. 3 Credits.**

Offered autumn and spring. Restricted to students in Art, Media Arts, Game Design and Interactive Media, and Sound Design and Media Technology. This project-oriented course will introduce students to the basic technical and aesthetic components of digital motion design and 2D animation using the industry standard software programs Photoshop and After Effects.



**MART 303 - 3D Modeling for Game Design. 3 Credits.**

This course is an introduction to theories and skills in developing 3D assets and environments for game design and interactive media. 3D modeling covers the fundamentals and workflows from concepts to creation in covering 3D design, modeling, lighting, texturing, rendering, character creation, rigging and leading up to animation. 3D modeling acts as a foundation for many forms of digital image creation and courses offered at the University of Montana such as animation, game development, and other media arts courses. The goals of this course is to develop the conceptual and cultural theories as well as the technical skills of 3D modeling. The course primarily focuses on Blender, it will also overlap with game engines such as Unreal and Unity and touch upon other various industry software, workflows and topics such as UV mapping, texturing, AI, technical art, procedural and parametric design.

**MART 304 - Modern Horror Film. 3 Credits.**

Offered autumn and spring. This class explores the changing landscape of the horror film since 1960, studying the genre and its sociological importance through the language of cinema.

**MART 305 - 3D Animation I. 3 Credits.**

Offered autumn. Restricted to students in Art, Media Arts, Game Design and Interactive Media, and Sound Design and Media Technology. This course is an introduction to fundamental concepts, principles, and practices of 3D digital modeling with Maya. Students will develop 3D modeling techniques, including production of geometric and organic objects. Through lectures, tutorials, in-class exercises, and projects, students will be exposed to various techniques that may be used for innovative and artistic content such as filmic animation and compositing.

**MART 325 - Introduction to Animation. 3 Credits.**

Offered spring. Restricted to students in Art, Media Arts, Game Design and Interactive Media, and Sound Design and Media Technology. Introduction to two-dimensional digital animation, focusing on character and motion design animation fundamentals including: cell animation (frame by frame), motion-tweening, working with keyframes and motion paths, moving elements on a 2D stage, object choreography, and text animation.

**MART 327 - Intro to Cinematography. 3 Credits.**

Offered spring. Restricted to students in Art, Media Arts, Game Design and Interactive Media, and Sound Design and Media Technology. Study of digital cinematography including color theory, composition, lens choice, continuity, camera movement/support, lighting for film and video, and grip in both studio and location situations.

**MART 329 - Edconic: Digital Futures in Contemporary Art. 2 Credits.**

Offered every semester. Restricted to students in the Edconic program. Taught at Sotheby's Institute in London by Edconic instructors. This course explores the dynamic discourse at the intersection of contemporary art and digital technologies, equipping students with a practical and contextual knowledge of how these technologies are reimagining the landscape of contemporary art practice.

**MART 330 - Principles of Sound Design. 3 Credits.**

Offered autumn. Restricted to students in Art, Media Arts, Game Design and Interactive Media, and Sound Design and Media Technology. Introduction to fundamental concepts, principles and practices of digital sound recording and editing in order to establish a common aesthetic and technical language necessary to develop quality audio design.

**MART 336 - Directing the Fiction Film. 3 Credits.**

Offered autumn. Restricted to students in Art, Media Arts, Game Design and Interactive Media, and Sound Design and Media Technology. Developing, directing and editing a five to seven minute fiction movie. In depth work on creation of shooting script, casting, work with actors and location work. Emphasis on collaborative process and diligence and preparation in all levels of production.

**MART 340 - Principles of Interactive Media. 3 Credits.**

Offered autumn and spring. Prereq., MART 120. Restricted to students in Art, Media Arts, Game Design and Interactive Media, and Sound Design and Media Technology. Introduction to interactive theory and art. This course is designed to help students gain the skill sets necessary to successfully create work in the constantly evolving arts environment. Installation-based works. Uses code and material.

**MART 341 - Introduction to Web Design. 3 Credits.**

Offered every term. Prereq., MART 120. Students will gain necessary skills in this introduction to the fundamentals of website structure, content design and navigation. Areas of focus will be directory structure, visual design, user navigation, audio/video integration and domain management. This course is open to all university students and geared to non-majors.

**MART 342 - Art & Science of Interactive Games. 3 Credits.**

Offer every term. Online course. This class is an introduction to the technological achievements and artistic and social impacts involved with the development of interactive games. It will cover the evolution of the gaming profile and the advanced visual, sonic and narrative properties that make interactive games the explosive growth industry that is today.

**MART 345 - Sound for Film. 3 Credits.**

Offered spring. This course is targeted at the Digital Filmmaking student and introduces fundamental concepts, principles and practices of digital location sound recording and post-production editing to picture in order to establish a common aesthetic and technical language.

**MART 352 - Writing for TV. 3 Credits.**

Writing for TV builds on the principles, theory, and practice of dramatic writing to engage in the specific techniques of screenwriting for television. Students will learn the unique format of writing for TV, analyze professional examples, develop original concepts, refine characters, write an original pilot episode, workshop their script pages in class, and practice pitching their series.

**MART 360 - History, Ethics, and Theory of Games. 3 Credits.**

This theoretically based course explores a different aspect of gaming as it pertains to the history, the various theories, and the ethics surrounding gaming. As a seminar course, students gain an understanding of how gaming has evolved as well as the theory behind what makes games effective and the ethical questions that game developers face. Students will also gain experience examining the most current research in this area.

**MART 361 - Serious Games. 3 Credits.**

This theoretically based course explores a different aspect of gaming as it pertains to serious games. As a seminar course, students gain an understanding of the serious gaming environment used in professional education and simulations. Students will also gain experience examining the most current research in this area.

**MART 362 - Game Development. 3 Credits.**

Offered fall. This is a fully online class with an optional synchronous component where students share ideas, collaborate, and create a fully functioning game throughout the semester with the potential of creating something for a full year with the intent of deploying it to a store. This course includes presentations from industry experts, game design principles, software engineering best practices, project management, and testing. Teams will work through hackathon challenges together and create projects for distribution.

**MART 363 - Level Design. 3 Credits.**

Prereq., MART 342; and MART 460 or MART 465. Level design is all about crafting interactive, evocative digital spaces for entertainment games, serious and training games, and museum exhibits. A level designer is responsible for creating immersive gameplay experiences for players and designing how a player flows through a digital environment. Exploring principles from a variety of disciplines, ranging from game design to architecture and urban planning, this course teaches students how to design engaging gameplay experiences and provides students with a generalized level design toolkit usable in all game genres. Students finish the semester by putting theory into practice to design and build working prototype levels.

**MART 370 - Introduction to Immersive Media - Augmented and Virtual Reality. 3 Credits.**

Offered autumn. Students will be introduced to immersive media through developing their own augmented and virtual reality experiences.

**MART 391 - Special Topics. 1-12 Credits.**

(R-15) Offered intermittently. Experimental offerings of visiting professors, experimental offerings of new courses, or one-time offerings of current topics.

**MART 392 - Independent Study. 1-6 Credits.**

(R-12) Offered intermittently. Course material appropriate to the needs and objectives of the individual student.

**MART 395 - Practicum I. 3 Credits.**

Offered every term. This course offers the student the opportunity to apply their media arts skill sets and techniques to a variety of professional level projects that include movies, web site design, and still image design.

**MART 398 - Internship. 1-6 Credits.**

(R-6) Offered intermittently. Extended classroom experience that provides practical application of classroom learning during placements off campus. Prior approval must be obtained from the faculty supervisor. A maximum of 6 credits of Internship (198, 298, 398, 498) may count toward graduation.

**MART 416 - Production Studio I. 3 Credits.**

Offered autumn. Restricted to students in Art and Media Arts. Students create storyboards/previsuals, idea sketches, and writing synopses, as well as identity and promotion of what will become finished works. Projects begun here will be continued in MART 457. Level: Undergraduate-Graduate

**MART 420 - Sonic Programming. 3 Credits.**

Offered autumn. Prereq., MART 120. This course merges skills and technique of creative coding with the creation of sonic art works. The majority of the class is focused on the creation of dynamic sound-based art works, and the application of concepts from interactive theory and interactive systems. Level: Undergraduate

**MART 436 - Producing. 3 Credits.**

Offered intermittently. Students take on the creative role of the producer in making narrative films. The class covers everything from script choice and analysis through hiring, casting, budgeting, and all of the steps from pre-production to post-production in the delivery of a completed project. Included are guest lectures from industry professionals in key areas of the filmmaking profession. Level: Undergraduate

**MART 440 - Technology and Interactive Media Design. 3 Credits.**

Offered spring. Prereq., MART 340. Restricted to students in Art, Media Arts, Game Design and Interactive Media, and Sound Design and Media Technology. Advanced interactive media design class that builds on the foundation of principles taught in MART 340. Level: Undergraduate

**MART 441 - Web Technologies. 3 Credits.**

Offered autumn and spring. This online advanced web technologies course explores client-side scripting using HTML, CSS, JavaScript, and JQuery. Through the creation of complex interactive functions and user experiences students gain an understanding of the overall environment of web design technologies and a more integrated set of web design skills. Level: Undergraduate

**MART 443 - Professional Development in Games. 3 Credits.**

This course prepares students for finding and applying to jobs in the games industry and related sectors. Students will learn how to successfully network in-person and virtually, prepare resumes and cover letters specific to games jobs, build a supporting portfolio, create a professional online presence using social media, and connect with current industry professionals. This class also covers legal issues pertaining to the games industry, such as NDAs or IP ownership, and how to negotiate contracts. Finally, students will learn how to overcome challenges awaiting them after hire in the games industry, such as cross-cultural communication, discrimination, and layoffs. They will leave this course with all the necessary materials and skills for applying to games industry jobs. Level: Undergraduate & Graduate

**MART 445 - Sound for Digital Media. 3 Credits.**

Offered spring. Restricted to majors in Art and Media Arts. This course is targeted at the Integrated Digital Media student and introduces fundamental concepts, principles and practices of digital sound recording and editing. This will enable students to expand their aesthetic by integrating their sonic and visual creative work. Level: Undergraduate-Graduate

**MART 450 - Topics in Film & Media Studies. 3 Credits.**

Offered autumn and spring. Restricted to students in Art, Media Arts, Game Design and Interactive Media, and Sound Design and Media Technology. Research and exploration of contemporary film, video, digital art and design. Focus on areas of student research both in commercial and non-commercial venues and styles. Level: Undergraduate  
Gen Ed Attributes: Writing in the Disciplines

**MART 455 - Visions of Documentary Film. 3 Credits.**

Offered spring. Restricted to students in Art, Media Arts, Game Design and Interactive Media, and Sound Design and Media Technology. Class focuses on the study of different works of documentary filmmaking as well as the processes needed to succeed in the world on non-fiction storytelling. While studying films students will prepare and complete a short documentary film piece of their own. Level: Undergraduate

**MART 457 - Production Studio II. 3 Credits.**

Offered spring. Restricted to students in Art, Media Arts, Game Design and Interactive Media, and Sound Design and Media Technology. This course covers the principles and techniques of finishing projects. Students will focus on advanced rendering tools, prototype testing, installation and final performances, refined editing/titles/credits, enabling students to leave with a well polished finished project. Level: Undergraduate-Graduate

**MART 460 - Fundamentals of the Unity Game Engine. 3 Credits.**

Prereq., MART 120 and MART 220. This game programming course explores different game engines including but not limited to the Unity and Unreal Game Engines. Through multiple design and programmatic experiences, students gain an understanding of the overall game programming environment and their technologies. Level: Undergraduate-Graduate

**MART 461 - Web Server Technologies. 3 Credits.**

This advanced web technologies course explores server-side programming including but not limited to ASP.NET, C#, SQL Server, PHP, and MySQL. Through the creation of complex back end interactions and user experiences, students gain an understanding of the overall environment of web programming technologies and a better understanding of the web stack. Level: Undergraduate-Graduate

**MART 462 - Mobile Game Programming. 3 Credits.**

Prereq., MART 120 and MART 220. This mobile game programming course explores different mobile game platforms and languages including but not limited to Android Studio with Java and Kotlin, XCode with Swift and Objective-C, and Visual Studio with Xamarin. Through many design and programmatic experiences, students gain an understanding of the mobile game programming environment and their technologies. Level: Undergraduate-Graduate

**MART 463 - Game Studio. 3 Credits.**

Offered spring. Game Studio is a fully online class with an optional synchronous component where students share ideas, collaborate, and create a fully functioning game throughout the semester with the potential of creating something for a full year with the intent of deploying it to a store. This course includes presentations from industry experts, game design principles, software engineering best practices, project management, and testing. Teams will work through hackathon challenges together and create projects for distribution. Level: Undergraduate-Graduate

**MART 464 - Creatively Exploring Artificial Intelligence: An Interdisciplinary Approach. 3 Credits.**

This highly experiential artificial intelligence course is offered and open to any major. The course's primary objective will be to help students understand what Generative AI is and how to use it effectively while thinking about the ethical and moral aspects of this technology. By bringing several experts into the class with diverse perspectives, students will gain a broad understanding of Generative AI and how it will affect their lives in various ways. The class will ask students to think holistically through writing reflections, exploring creative possibilities in their disciplines, and generate projects that can affect the world around them. Level: Undergraduate/Graduate

**MART 465 - Fundamentals of the Unreal Game Engine. 3 Credits.**

Prereq., MART 120 and MART 220. This game programming course explores the Unreal Game Engine. Through multiple design and programmatic experiences, students understand the overall game programming environment and their technologies. Level: Undergraduate-Graduate

**MART 470 - Advanced Acting for Film I. 3 Credits.**

Offered spring. Prereq., THTR 320. This studio class builds on the techniques of basic realistic acting, adding processes that prepare students to work in the world of filmmaking. Level: Undergraduate-Graduate

**MART 480 - Professional Portfolio. 3 Credits.**

Offered spring semester. This course focuses on preparing students for the transition between academic and professional environments in the media industry. Students have spent the past few years building a robust body of work, which they will now polish and package through creative branding and design. Guest lectures and interviews will provide insight into current industry standards, professional workflow, and entering the creative workforce. Students should leave this course with all the materials they need to enter the professional world. Level: Undergraduate

**MART 491 - Special Topics. 1-12 Credits.**

(R-15) Offered intermittently. Experimental offerings of visiting professors, experimental offerings of new courses, or one-time offerings of current topics. Level: Undergraduate-Graduate

**MART 492 - Independent Study. 1-6 Credits.**

(R-12) Offered intermittently. Course material appropriate to the needs and objectives of the individual student. Level: Undergraduate-Graduate

**MART 495 - Practicum II. 3 Credits.**

Offered every term. This course offers the student the opportunity to apply their media arts skill sets and techniques to a variety of professional level projects that include movies, web site design, and still image design. Level: Undergraduate-Graduate

**MART 498 - Internship. 1-6 Credits.**

(R-6) Offered intermittently. Extended classroom experience that provides practical application of classroom learning during placements off campus. Prior approval must be obtained from the faculty supervisor. A maximum of 6 credits of Internship (198, 298, 398, 498) may count toward graduation.

**MART 499 - Senior Project. 3 Credits.**

(R-9) Offered spring and fall. Restricted to students in the Arts and Media Arts majors. This capstone course gives the student an opportunity to create an integrated senior project which brings together all of the elements of their course of study. Level: Undergraduate

**MART 500 - Core Research: Practice-Led Research in Arts and Technology. 3 Credits.**

Offered intermittently. This course explores the relationship between aesthetics and the emerging capabilities of arts and technology. This relationship will be explored through consideration of the reciprocal relationship between research and art. Students will be pushed to explore how practice-led research, research-led practice, and practice-based research methods may influence their own creative practice. They will also consider how creative practice and associated research methods create new novel knowledge and how this may contribute individual communities and the world at large. Level: Graduate

**MART 510 - Core Research: Creative Process and Story. 3 Credits.**

Offered fall. This course breaks apart creative process models through exercises in writing and drawing. Students also critically engage with essays on the narrative processes of different writers, filmmakers and artists. Level: Graduate

**MART 514 - Research in Film Design and Technology. 1-6 Credits.**

(R-12) Offered fall and spring. Development of specific technical and artistic skills in design of visual and/or audio work involved in filmmaking processes. Level: Graduate

**MART 515 - Research in Digital Post-Production. 1-6 Credits.**

(R-12) Offered fall and spring. Development of specific technical and artistic skills in post-production editing and effects work for filmmaking. Level: Graduate

**MART 520 - Core Research: Peer Teaching. 2 Credits.**

This graduate seminar is designed for prospective graduate teaching assistants and will cover techniques and best practices for both in-class and online delivery. Level: Graduate

**MART 521 - Game Analysis & Theory. 3 Credits.**

This class explores how to formally analyze games as an artistic medium. Students will develop a methodological toolkit they can employ to conduct formal analyses of games and interactive media, informed by methods and theories from within game studies. This course also explores relevant theories from adjacent disciplines such as film and literature, but within the context of how these concepts can be applied to deepen our understanding of interactive games as an artistic medium. Students will leave this class with an informed vocabulary they can use to talk and write about games academically, knowledge of theories they can apply to improve the design of their own games, and a deeper appreciation of games as interactive art.

**MART 530 - Core Research: Professional Presentation. 3 Credits.**

The purpose of this class is to develop a foundation for your professional media arts practice, to prepare you for seeking career, exhibition, and public presentation opportunities in the field. Level: Graduate

**MART 531 - Professional Presentation in Games. 3 Credits.**

In this course students will publish and present themselves in a professional capacity in game design and interactive media. This course creates a framework for students to assess and develop their own industry practice, set goals, and gain experience in the professional environment. Such examples may include producing a game, presenting at a conference, or publishing a research paper.

**MART 578 - Graduate Studio. 1-6 Credits.**

(R-18) Offered every semester. Each semester students work on individual projects under the supervision of a faculty mentor. Each year begins and ends with a faculty and peer review of projects in progress. Level: Graduate

**MART 580 - Principals of Cinematography. 4 Credits.**

Offered autumn. Intermediate study of digital cinematography including color theory, composition, lens choice, continuity, camera movement/support, lighting for film and video, and grip in both studio and location situations. Level: Graduate

**MART 581 - Graduate Game Seminar. 3 Credits.**

(R-18) This course centers on students' work in developing a game project leading up to a thesis. This course will cover the theoretical and physical elements of game design and development. There will be playtests for feedback supported by readings, theories and discussions. This seminar aims to equip masters-level students with both the theoretical background and practical skills needed to thrive in game design. By the end of the course, students will have a portfolio piece to showcase their collaborative project and a deeper understanding of the complexities of creating engaging games. Level: Graduate

**MART 582 - Graduate Studio in Game Design and Interactive Media. 3 Credits.**

In this course students will work together with their team of MFA students to research and develop a project. This student cohort will work together to research a concept, design gameplay, create a timeline, assign rolls, organize playtests, and publish.

**MART 586 - Research in Screenwriting. 1-6 Credits.**

(R-12) Offered fall and spring. Research through Individual work on fiction screenplay, either short or long form. Level: Graduate

**MART 587 - Research in Multi-plot and Serial Screenwriting. 1-6 Credits.**

(R-12) Offered fall and spring. Development of screenplays for game design or serial writing for television.

**MART 590 - Research. 1-12 Credits.**

(R-12) Offered intermittently. Directed individual research and study appropriate to the back ground and objectives of the student. Level: Graduate

**MART 591 - Special Topics. 1-6 Credits.**

(R-12) Offered every term. Experimental offerings of visiting professors, experimental offerings of new courses, or one-time offerings of current topics. Level: Graduate

**MART 592 - Independent Study. 1-6 Credits.**

(R-12) Offered autumn and spring. Course material appropriate to the needs and objectives of the individual student. Level: Graduate

**MART 594 - Seminar. 1-6 Credits.**

(R-6) Offered intermittently. A review and discussion of current research. Topics vary. Level: Graduate

**MART 595 - Graduate Practicum. 1-6 Credits.**

(R-12) Offered intermittently. Supervised, practical experience in a professional setting relevant to the student's field of study. Level: Graduate

**MART 598 - Internship. 1-6 Credits.**

(R-6) Offered intermittently. Extended classroom experience that provides practical application of classroom learning during placements off campus. Prior approval must be obtained from the faculty supervisor. Level: Graduate

**MART 601 - Final Portfolio Research. 3 Credits.**

Offered spring. Investigation into subjects relevant to the development of the students Final Portfolio work. Application of qualitative research techniques, with a research presentation or paper due at the end of the semester. Level: Graduate

**MART 603 - Advanced Topics in Game Design and Interactive Media. 3 Credits.**

This course explores advanced and emerging concepts in game design and interactive media, focusing on such topics as innovative mechanics, narrative integration, player psychology, AI, and the impact of technology on gameplay. Students will engage in hands-on projects, critical analysis, and collaborative discussions to deepen their understanding of contemporary game design challenges and trends. This course aims to push students to think critically about the complex layers of game design and encourage them to innovate within the field, preparing them for advanced careers in game development, games research, and emerging interactive media.

**MART 680 - Film Directing IV. 4 Credits.**

Offered spring. Prereq., MART 578. Continued advanced work in directing, including the completion of a short film. Level: Graduate

**MART 687 - Final Portfolio I. 1-12 Credits.**

Offered autumn. Ongoing production and content work relating to thesis projects. Level: Graduate

**MART 688 - Media Practicum. 3 Credits.**

(R-12) Offered fall and spring. Pursuit of Practical Experience in Media Arts projects both personal and Professional. Level: Graduate



**MART 691 - Special Topics. 1-8 Credits.**

(R-24) Experimental offerings of visiting professors, experimental offerings of new courses, or one-time offerings of current topics. Level: Graduate

**MART 695 - Professional Practices. 1-6 Credits.**

(R-6) Offered every term. Work outside of program in an area of professional interest. Level: Graduate

**MART 698 - Internship. 1-6 Credits.**

(R-6) Offered intermittently. Extended classroom experience that provides practical application of classroom learning during placements off campus. Prior approval must be obtained from the faculty supervisor. Level: Graduate

**MART 699 - Final Portfolio II. 1-12 Credits.**

Offered spring. Final work on thesis portfolio. Approval by the student's thesis committee is required for graduation. Level: Graduate

## Media Arts-Filmmaking (MAR)

**MAR 251 - Digital Video Production Technology. 3 Credits.**

Offered autumn. Prereq., major in Media Arts. A project-based class, students learn the use and application of filmmaking equipment, including cameras, lights and sound. Short film projects are produced to apply principles and work in various roles required for the completion of a fiction film.

**MAR 252 - Screenwriting. 3 Credits.**

Offered spring. Prereq., Media Arts Major. Intermediate level writing class devoted to short films, with an emphasis on writing camera-ready scripts for production. Feature film structure and techniques are also introduced.

**MAR 442 - Experimental Film. 3 Credits.**

Offered autumn. Media Arts majors only. Surveying a wide range of experimental cinema (film/video) from the 1920's to the present with the central focus being artistic practice in the context of historic and cultural concerns. Students will also create projects focusing on exploring film/video both as a form of personal expression and as a medium, rather than as mass entertainment. Level: Undergraduate

## Metals & Machining Technology (MCH)

**MCH 101 - Introduction to Manufacturing Processes. 1 Credit.**

Offered autumn. Offered at Missoula College. This course is designed to introduce the student with an overview of manufacturing to include engineering materials and product attributes, material removal processes, property enhancing and surface processing operations, special processes and assembly technologies, and manufacturing systems.

**MCH 102 - Introduction to Manufacturing Materials. 2 Credits.**

Offered spring. Offered at Missoula College. This is an introductory course in the study of materials used in the manufacturing industry. Topics include selection and identification of steels, selection and identification of nonferrous metals, mechanical behavior of various plastics, hardening, case hardening, tempering, annealing, normalizing, stress relieving, and the use of the Rockwell and Brinell hardness testers.

**MCH 112 - Related Metals Processes I. 1 Credit.**

Offered spring. Offered at Missoula College. Use of hand tools and machines which relate to the repair of heavy equipment. Instruction covers fasteners, layout, bench metal, threads and threading, drills and drilling, and tool sharpening.

**MCH 114 - Related Metals Processes II. 3 Credits.**

Offered autumn. Offered at Missoula College. Instruction and use of drills, files, threads and threading processes, basic lathe, drill press, and band saw operation, including precision measuring instruments. Fasteners, layout procedures, and basic hand tools are covered.

**MCH 115 - Related Metals Processes III. 3 Credits.**

Offered spring. Offered at Missoula College. A basic metalworking course covering fasteners, layout, bench metal, heat treating, threads and threading, drills and drilling, basic machining, and tool sharpening.

**MCH 120 - Blueprint Reading & Interpretation for Machining. 3 Credits.**

Offered autumn. Offered at Missoula College. This course introduces the fundamental concepts necessary to interpret and make drawings with symbols, various schematics and diagrams, dimensioning techniques, section views, auxiliary views, threads and fasteners, and sketching typical to all shop drawings. Interpretation of specifications and determination of acceptable tolerance requirements to ensure quality control measures for design parts will also be stressed.

**MCH 122 - Introduction to CAM. 3 Credits.**

Offered spring. Offered at Missoula College. This course introduces Computer Aided Manufacturing (CAM) operational basics for both mill and lathe programming using current CAM software. The course includes terminology relevant to PC-based CAD/CAM work, hardware familiarity, system operation and management, folders, file type and structure, menu structure and use, and 3 axis (milling machines) and 2 axis (lathes) tool paths. Emphasis is placed on proper geometric creation, management, relevant utilities, and toolbar and menu functions.

**MCH 125 - Introduction to CNC Lathes. 3 Credits.**

Offered spring. Offered at Missoula College. Prereq., MCH 132. This course provides opportunities for students to develop skills in the safe setup, maintenance, and operation of CNC lathes and related periphery tools and skills. Topics covered include CNC lathe parts, controls, tool holding, tool insert geometry, chip formation, speeds and feeds, operation and process planning, threads, fits, dimensioning and tolerances, surface finish, and the following lathe processes: facing, turning, tapering, drilling, boring, reaming, chamfering, grooving, parting-off, internal and external threading, tapering, and knurling. Graded projects based on chuck, collet, and fixturing will be done. Related periphery tooling, use and care of precision measuring tools, in addition to related math used in the trade, will also be covered.

**MCH 127 - Introduction to CNC Mills. 3 Credits.**

Offered spring. Offered at Missoula College. Prereq., MCH 134. This course provides instruction in the setup and operation of CNC mills. Student projects include specialty tooling and multi-axis machining. Students will also gain experience in process control. Topics include specialty tooling, multi-axis machining, process control, and laboratory exercises in part production.

**MCH 129 - Machine Quality Control and Precision Measurements. 3 Credits.**

Offered autumn. Offered at Missoula College. Students will develop the knowledge to analyze and evaluate the processes and methodology required in an industrial production environment to determine whether quality control standards are being met. Topics include use of non-precision measuring tools, use of precision measuring tools, use of comparison gauges, and analysis of measurements in a CNC environment.



**MCH 130 - Machine Shop. 3 Credits.**

Offered spring. Offered at Missoula College. The course content covers a broad range of shop fundamentals in manual and CNC machining. This course includes an emphasis on shop and work area safety. Instruction covers standard shop work, such as measurement, layout, basic hand tools, drills, drill presses, and taps and dies. Use of pedestal grinder will be covered. Work assignments incorporate projects requiring use of the above machines, tooling, and emphasizes safety.

**MCH 132 - Introduction to Manual Engine Lathes. 4 Credits.**

Offered autumn. Offered at Missoula College. Prereq./coreq., MCH 120 and MCH 129. This introduction to Manual Engine Lathes will cover the safety, maintenance and operation of manual engine lathes and related periphery tools and skills. Subjects covered include HSS tool bit grinding and tool bit geometry, chip formation, speeds and feeds, operation and process planning, threads, fits, dimensioning and tolerances, surface finish, and the following lathe processes: facing, turning, tapering, drilling, boring, reaming, chamfering, grooving, parting-off, internal and external threading, tapering, knurling, filing and polishing. Graded projects using between centers and chuck work turning will be done. Related periphery tooling, use and care of precision measuring tools, in addition to related math used in the trade, will also be covered.

**MCH 134 - Introduction to Manual Mills. 4 Credits.**

Offered autumn. Offered at Missoula College. Prereq./co-req., MCH 120 and MCH 129. The student will perform advanced hands-on machine shop operations: set up and operation of manual milling machines, drill presses, band saws, grinders, and other equipment commonly found in manufacturing facilities. The student will use precision measuring tools and methods, utilize blueprints, and perform project process planning. Various types of steel and aluminum are use.

**MCH 191 - Special Topics. 1-6 Credits.**

(R-6). Offered intermittently. Offered at Missoula College. Experimental offerings of visiting professors, experimental offerings of new courses, or one-time offerings of current topics.

**MCH 194 - Manufacturing Seminar. 1-6 Credits.**

(R-6) Offered intermittently. Offered at Missoula College. Guided study in a specialized workforce education area.

**MCH 198 - Internship. 1-6 Credits.**

(R-6) Offered at Missoula College. Extended classroom experience that provides practical application of classroom learning during placements off campus. Prior approval must be obtained from the faculty supervisor. A maximum of 6 credits of Internship (198, 298, 398, 498) may count toward graduation.

**MCH 292 - Independent Study. 1-6 Credits.**

(R-6) Offered intermittently. Offered at Missoula College. Course material appropriate to the needs and objectives of the individual student.

**MCH 294 - Manufacturing Seminar. 1-6 Credits.**

(R-6) Offered intermittently. Offered at Missoula College. Guided study in a specialized workforce education area.

**MCH 298 - Internship. 1-6 Credits.**

(R-6) Offered at Missoula College. Extended classroom experience that provides practical application of classroom learning during placements off campus. Prior approval must be obtained from the faculty supervisor. A maximum of 6 credits of Internship (198, 298, 398, 498) may count toward graduation.

## Military Science Leadership (MSL)

**MSL 101 - Introduction to the Army. 3 Credits.**

Offered autumn. The Constitutional role of the military, military tradition, current defense posture, service roles and missions. An introduction to issues and competencies that are central to a commissioned officer's responsibilities. Establishes framework for understanding officership, leadership and army values.

**MSL 102 - Intro to Tactical Leadership. 3 Credits.**

Offered spring. Establishes foundation of basic leadership fundamentals such as problem-solving, communications, goal setting and improving listening techniques. Introduction to the principles of military leadership and organizational values through discussion, observation and practice exercises.

**MSL 106 - Army Physical Fitness. 1 Credit.**

(R-10) Offered autumn and spring. The study and application of military drill and ceremony: formation, ceremonies, and marching; the study of the fundamentals of the military physical conditioning program, and the practical application of skills learned. Physical education activity course; a maximum of four credits of activity courses may be counted toward graduation.

**MSL 201 - Innovative Team Leadership. 3 Credits.**

Offered autumn. Demonstration and practice of individual military leadership skills with emphasis on communication and observation through experiential learning exercises. Establishes framework for understanding of "life skills" such as physical fitness and time management. Examination and practical application of tasks training and military style briefings.

**MSL 202 - Found of Tactical Leadership. 3 Credits.**

Offered spring. Building successful teams through influencing actions and effective communication in setting and achieving goals. Use of creativity in the problem solving process. Introduction of individual and team aspects of military tactics in small unit operations. Practical exercises in techniques for training others as an aspect of continued leadership development.

**MSL 203 - Ranger Challenge. 2 Credits.**

(R-4) Offered autumn. Students must be physically qualified and enrolled in an additional MSL academic class. Practical hands-on training in one rope bridge, land navigation, military weapons assembly/disassembly and physical conditioning. A team selected from this class will represent the University in competition against four other colleges and universities within the Big Sky Task Force. Physical education activity course; a maximum of four credits of activity courses may be counted toward graduation.

**MSL 205 - American Military History. 3 Credits.**

Offered autumn and spring. Describes the evolution of the American military land forces within the context of national historical development, industrialization, national security, and the United States' evolving international role and policies.

**MSL 291 - Special Topics. 1-6 Credits.**

(R-6) Experimental offerings of visiting professors, experimental offerings of new courses, or one-time offerings of current topics.

**MSL 301 - Training Management and Warfighting Fundamentals. 3 Credits.**

Offered autumn. Developing personal leadership principles through the learning and application of various small unit leadership procedures. Fundamentals of leadership development, land navigation, troop leading, small units tactics, rappelling, rifle marksmanship and physical fitness. Study of the organization and operation of the U.S. Army as a profession.

Students are required to attend one weekend field exercise during the semester. Restricted to contracted Military Science students.

**MSL 302 - Applied Team Leadership. 3 Credits.**

Offered spring. Restricted to contracted Military Science students. Continuation of the study and application of small unit leadership tasks. Advanced leadership skills taught including medical evacuation procedures, radio procedures, and increased involvement in planning and executing military operations in preparation for attendance at the Leader Development and Assessment Course at Fort Lewis, Washington.

Students participate in rifle marksmanship instruction including qualification with the M16A2 rifle, rappelling, and attend one weekend exercise with students from regional universities in the area and the Montana Army National Guard.

**MSL 303 - Leadership Laboratory. 1 Credit.**

(R-10) Offered autumn and spring. Practical application of skills learned in the classroom.

**MSL 305 - Leadership Development and Assessment Course. 3 Credits.**

Offered every term. Required study and internship in military tactics, leadership and organizational behavior. Supervised by active duty military officers. Participants attend course of study at Fort Knox, KY for four weeks of intense evaluation and training to assess their ability to serve as a 2nd LT in the US Army, US Army Reserves, or the National Guard.

**MSL 391 - Special Topics. 1-9 Credits.**

(R-9) Offered autumn and spring. Experimental offerings of visiting professors, experimental offerings of new courses, or one-time offerings of current topics.

**MSL 401 - The Army Officer. 3 Credits.**

Offered autumn. Restricted to contracted Military Science students. The application of leadership principles and techniques involved in leading young men and women in today's Army. Students explore training management, methods of effective staff collaboration and developmental counseling techniques. Develops student proficiency in planning and executing complex operations, functioning as a member of a staff and mentoring subordinates. Level: Undergraduate-Graduate

**MSL 402 - Leadership in a Complex World. 3 Credits.**

Offered spring. Restricted to contracted Military Science students. Study includes case study of military law and practical exercises on establishing an ethical command climate. Examines the role communications, values and ethics play in effective leadership. Students complete a semester long Senior Leadership Project that requires them to plan, organize, collaborate, analyze and demonstrate their leadership skills. Level: Undergraduate-Graduate

**MSL 498 - Coop. Education/Internship. 1-6 Credits.**

(R-6) Offered every term. Required study and internship in military tactics, leadership and organizational behavior. Supervised by active duty military officers. A maximum of 6 credits of Internship (198, 298, 398, 498) may count toward graduation. Level: Undergraduate

## Music (MUSI)

**MUSI 101L - Enjoyment of Music. 3 Credits.**

Offered autumn and spring. The development of music listening skills. Exploration of the relationship between musical materials and the expressive qualities of a musical composition or performance. Concert attendance required. No musical background is expected.

Gen Ed Attributes: Literary & Artistic Studies

**MUSI 102A - Performance Study. 1-2 Credits.**

(R-6) Offered autumn and spring. Individual instruction in voice, piano, organ, harpsichord, carillon, string, wind and percussion instruments. All private instruction requires concurrent ensemble participation. A maximum of 6 credits is allowed in music performance.

Gen Ed Attributes: Expressive Arts

**MUSI 104A - Music Fundamentals. 3 Credits.**

Offered intermittently. Basic principles of notation, including clefs, scales, intervals, chords and rhythm.

Gen Ed Attributes: Expressive Arts

**MUSI 105 - Music Theory I. 2 Credits.**

Offered autumn. Coreq., MUSI 140. Restricted to majors and minors in Music and Theatre majors in the Musical Theater Performance concentration. Material and structure of music. Application of principles in two-, three-, and four-part writing and the keyboard.

**MUSI 106 - Music Theory II. 2 Credits.**

Offered spring. Prereq., MUSI 105. Coreq., MUSI 141. Restricted to majors and minors in Music and Theatre majors in the Musical Theater Performance concentration. Continuation of MUSI 105.

**MUSI 108A - Orchestra: UMSO. 1 Credit.**

(R-8) Offered autumn and spring. Rehearsal and performing experience in a broad range of symphonic, choral, operatic and concerto repertoire in the University Orchestra and the Missoula Symphony. Participation in the Missoula Symphony also requires an audition.

Gen Ed Attributes: Expressive Arts

**MUSI 110A - Opera Theatre I. 1 Credit.**

(R-8) Offered autumn and spring. Study and performance of the standard opera repertoire.

Gen Ed Attributes: Expressive Arts

**MUSI 111A - Group Voice Class. 2 Credits.**

Offered intermittently. This course introduces skills that enable and enhance healthy singing, including proper vocal technique, performance skills, and artistic presentation. It is taught in a group setting and is appropriate to all skill levels. Students do not have to read music in order to succeed in this course.

Gen Ed Attributes: Expressive Arts

**MUSI 112A - Choir. 1 Credit.**

(R-8) Offered autumn and spring. Different sections of this course comprise the lower-division sections of the University Choir (Section 01) and Chamber Chorale (Section 02). University Choir requires a voice placement to be completed prior to the first rehearsal. The voice placement is an assessment of the student's voice and capabilities in order to place them in the correct section within the choir. Participation in Chamber Chorale is contingent upon successful completion of a two-part audition process that includes an audition and a callback, which must also be completed prior to the first rehearsal. Students may visit <https://www.umt.edu/music/academics/ensembles/vocal-ensembles/choirs/default.php> for more information and to complete the Voice Placement Registration Form.

Gen Ed Attributes: Expressive Arts

**MUSI 114A - Band: UM Concert Band. 1 Credit.**

(R-8) Offered autumn and spring. Major musical organizations open to all University students. Audition required for Symphonic Wind Ensemble.  
Gen Ed Attributes: Expressive Arts

**MUSI 122A - Percussion Ensemble: UM. 1 Credit.**

(R-8) Offered autumn and spring. Restricted to majors and minors in Music. Ensemble for percussionists.  
Gen Ed Attributes: Expressive Arts

**MUSI 123A - World Percussion Ensemble. 1 Credit.**

(R-8) Offered autumn and spring. Restricted to majors and minors in Music. Ensemble for percussionists exploring global musical styles.  
Gen Ed Attributes: Expressive Arts

**MUSI 130L - History of Jazz. 3 Credits.**

Offered autumn. The development of jazz in the 20th century with emphasis on critical listening and the recognition of important trends and people in its history.  
Gen Ed Attributes: Literary & Artistic Studies

**MUSI 131A - Jazz Ensemble I: UM Jazz Bands. 1 Credit.**

(R-8) Offered autumn and spring. Study and performance of the jazz repertoire.  
Gen Ed Attributes: Expressive Arts

**MUSI 132L - History of Rock & Roll. 3 Credits.**

Offered autumn and spring. A study of the roots, components, and development of the musical art form "Rock and Roll". Significant performing artists and movements with the style identified and presented. Includes traditional lecture with substantial use of audio and visual aids.  
Gen Ed Attributes: Historical Studies, Literary & Artistic Studies

**MUSI 133 - Country Music: Cowboys, Opry, and Nashville. 3 Credits.**

This course will explore the country music genre, including its major performers, songwriters, songs and impact on culture from the early times on the radio to the beginning of the twenty-first century.

**MUSI 135A - Keyboard Skills I. 1 Credit.**

Offered autumn. Restricted to majors and minors in Music, majors in the Musical Theatre Performance concentration, majors in Sound Design and Media Technology, and students seeking the Certificate in Sound Production Fundamentals. Music reading, techniques, and harmonization skills acquired through study of solo and ensemble repertoire in a contemporary electronic piano laboratory.  
Gen Ed Attributes: Expressive Arts

**MUSI 136A - Keyboard Skills II. 1 Credit.**

Offered spring. Prereq., MUSI 135A. Restricted to majors and minors in Music and majors in the Musical Theatre Performance concentration. Continuation of MUSI 135A.  
Gen Ed Attributes: Expressive Arts

**MUSI 140 - Aural Perception I. 2 Credits.**

Offered autumn. Coreq., MUSI 105. Restricted to majors and minors in Music and majors in the Musical Theatre Performance concentration. A laboratory course in singing and dictation to supplement Theory I.

**MUSI 141 - Aural Perception II. 2 Credits.**

Offered spring. Prereq., MUSI 140. Coreq., MUSI 106. Restricted to majors and minors in Music and majors in the Musical Theatre Performance concentration. Continuation of MUSI 140.

**MUSI 155A - Grizzly Marching Band. 1 Credit.**

(R-8) Offered autumn. A musical organization of brass, woodwinds, percussion, and auxiliary units open to all University students with no audition required.  
Gen Ed Attributes: Expressive Arts

**MUSI 160A - Beginning Guitar. 2 Credits.**

Offered intermittently. A beginning course in the fundamentals of playing folk guitar. Includes introduction to the rudiments of music.  
Gen Ed Attributes: Expressive Arts

**MUSI 162A - Chamber Ensembles I. 1 Credit.**

(R-20) Offered autumn and spring. Restricted to majors and minors in Music. String, woodwind, brass, percussion, piano and vocal ensembles as appropriate to meet student needs.  
Gen Ed Attributes: Expressive Arts

**MUSI 180 - Composition I. 1-2 Credits.**

(R-4) Offered autumn and spring. Restricted to majors and minors in Music and majors in Sound Design and Media Technology. An introduction to the basic art of music composition. May be substituted for upper-division electives for students not majoring in theory or composition.

**MUSI 191 - Special / Experimental Courses. 1-9 Credits.**

(R-9) Offered autumn and spring. Experimental offerings of visiting professors, experimental offerings of new courses, or one-time offerings of current topics.

**MUSI 192 - Independent Study. 1-3 Credits.**

(R-9) Restricted to majors and minors in Music. Course material appropriate to the needs and objectives of the individual student. Students must have projects approved by a music faculty member before enrolling.

**MUSI 194 - Seminar. 1-6 Credits.**

(R-6) A review and discussion of current research. Topics vary.

**MUSI 195 - Applied Study I. 1-4 Credits.**

(R-12) Offered autumn and spring. Restricted to majors and minors in Music and majors in the Musical Theatre Performance concentration. Instruction in voice, piano, organ, string, wind, and percussion instruments. Students entering MUSI 195 must show talent for solo performance and evidence of prior study. All private instruction for music majors requires concurrent ensemble participation.

**MUSI 202L - Intro to Music Literature. 3 Credits.**

Offered spring. Restricted to majors and minors in Music and majors in Sound Design and Media Technology. A survey of representative examples of the standard music literature of the Western European tradition. Particular attention to musical styles and forms and their relationship to musical understanding and effective listening. A basic knowledge of music fundamentals is expected.  
Gen Ed Attributes: Literary & Artistic Studies

**MUSI 205 - Music Theory III. 2 Credits.**

Offered autumn. Prereq., MUSI 106 and MUSI 141. Coreq., MUSI 240. Restricted to majors and minors in Music. Continuation of MUSI 106. Topics focus on notational literacy as reflected in, but not limited to, music as defined by and expressed in the Western European historical tradition from the Renaissance through the common practice period to the contemporary musical world in which we live.

**MUSI 206 - Music Theory IV. 2 Credits.**

Offered spring. Prereq., MUSI 205. Coreq., MUSI 241. Restricted to majors and minors in Music. This course is a continuation of MUSI 205, concentrating on, but not limited to, music as defined by and expressed in the Western European historical traditions from the Renaissance through the common practice period to the contemporary musical world in which we live.

**MUSI 207X - World Music (equiv to 307). 3 Credits.**

Offered autumn and spring. Introduction to the diversity of music among the world's people. Selected music systems throughout the world examined in their broad culture contexts: religious, historical, and social. Introduction to ethnomusicology—a combination of musicology, anthropology and other related disciplines.

Gen Ed Attributes: Cultural & International Diversity

**MUSI 218 - Instrumental Piano Classical. 1 Credit.**

Offered intermittently. Requires a placement examination. Restricted to majors and minors in Music. Accelerated offering of the material covered in MUSI 235 and 236.

**MUSI 235 - Keyboard Skills III. 1 Credit.**

Offered autumn. Prereq., MUSI 136A. Restricted to majors and minors in Music. Continuation of MUSI 136A.

**MUSI 236 - Keyboard Skills IV. 1 Credit.**

Offered spring. Prereq., MUSI 235. Restricted to majors and minors in Music. Continuation of MUSI 235. Culminates in piano functional examination.

**MUSI 240 - Aural Perception III. 2 Credits.**

Offered autumn. Prereq., MUSI 106 and MUSI 141. Coreq., MUSI 205. Restricted to majors and minors in Music. A lab course in singing and dictation to supplement Theory III.

**MUSI 241 - Aural Perception IV. 2 Credits.**

Offered spring. Prereq., MUSI 240. Coreq., MUSI 206. Restricted to majors and minors in Music. A lab course in singing and dictation to supplement Theory IV.

**MUSI 267A - Composer's Workshop. 1 Credit.**

Offered intermittently. Restricted to majors and minors in Music. This is a composition workshop and new music ensemble in which student composers and performers collaborate, guided by a faculty composer, to develop new pieces.

Gen Ed Attributes: Expressive Arts

**MUSI 280 - Composition II. 1-2 Credits.**

(R-4) Offered autumn and spring. Prereq., MUSI 180. Restricted to majors and minors in Music. Original work in composition may be substituted for upper-division electives for students not majoring in theory or composition.

**MUSI 281 - Diction: English, Italian. 2 Credits.**

Offered autumn even-numbered years. Restricted to majors and minors in Music. Introduces students to the International Phonetic Alphabet (IPA) with application to American English diction and Italian diction.

**MUSI 282 - Diction: German & French (equiv 382). 2 Credits.**

Offered spring odd-numbered years. Prereq., MUSI 281. Restricted to majors and minors in Music. Applies IPA to French and German diction and addresses other guidelines that apply to the lyric pronunciation of these languages. Students will transcribe, translate, recite, and sing German and French texts. Students who would like to be considered for mid-year registration in this diction series may do so only with the consent of the instructor.

**MUSI 291 - Special / Experimental Courses. 1-9 Credits.**

(R-9) Offered intermittently. Experimental offerings by visiting professors, experimental offerings of new courses, or one-time offerings of current topics.

**MUSI 295 - Applied Study II. 1-4 Credits.**

(R-12) Offered autumn and spring. Prereq., MUSI 195 and audition. Restricted to majors and minors in Music. Instruction in voice, piano, organ, string, wind and percussion instruments. Continuation of 195. All private instruction requires concurrent ensemble participation.

**MUSI 296 - Upper-Division Required Performance. 0 Credits.**

Restricted to majors and minors in Music. All music majors must present a juried performance on their primary instrument that demonstrates competency in the musical skills necessary to proceed in their degree track. Graded CR/NCR.

**MUSI 301H - Music History I. 3 Credits.**

Offered autumn. Restricted to majors and minors in Music. The history of music in Western civilization from its origins to 1750 and its relationship to general cultural development. Introduction to basic research skills in music. Emphasis on listening for style characteristics through representative recorded repertoire.

Gen Ed Attributes: Historical Studies, Democracy and Citizenship

**MUSI 302H - Music History II. 3 Credits.**

Offered spring. Prereq., WRIT 101. Restricted to majors and minors in Music and majors in Sound Design and Media Technology. The history of music in Western civilization from 1750 to modern times.

Gen Ed Attributes: Historical Studies, Writing Across the Curriculum, Democracy and Citizenship

**MUSI 304A - Sound in the Natural World. 3 Credits.**

Offered even-numbered years. This is a music composition and performance course that explores sound/music in relation to wilderness.

Students will learn from cultures that have stayed in contact with their natural environment and will create compositions from materials collected in the field and will perform and critique them. As a result, students will become familiar with their own creative process.

Gen Ed Attributes: Expressive Arts

**MUSI 308 - Orchestras II: UM. 1 Credit.**

Offered autumn and spring. Prereq., MUSI 108A. Restricted to majors and minors in Music with upper-division standing in instrument of participation. Rehearsal and performing experience in a broad range of symphonic, choral, operatic, and concerto repertoire in the University Orchestra and the Missoula Symphony.

**MUSI 310 - Opera Theatre II. 1 Credit.**

(R-8) Offered autumn and spring. Prereq., MUSI 108A. Restricted to majors and minors in Music. Study and performance of the standard opera repertoire.



**MUSI 312 - Choir III. 1-8 Credits.**

Offered autumn and spring. Restricted to students with upper-division standing in voice. Different sections of this course comprise the upper-division sections of the University Choir (Section 01) and Chamber Chorale (Section 02). University Choir requires a voice placement to be completed prior to the first rehearsal. The voice placement is an assessment of the student's voice and capabilities in order to place them in the correct section within the choir. Participation in Chamber Chorale is contingent upon successful completion of a two-part audition process that includes an audition and a callback, which must also be completed prior to the first rehearsal. Students may visit <https://www.umt.edu/music/academics/ensembles/vocal-ensembles/choirs/default.php> for more information and to complete the Voice Placement Registration Form.

**MUSI 314 - Band III: UM Concert Band. 1 Credit.**

Offered autumn and spring. Restricted to students with upper-division standing in instrument of participation. Major musical organizations open to all University students. Audition required for Symphonic Wind Ensemble.

**MUSI 322 - UM Percussion Ensemble. 1 Credit.**

Offered autumn and spring. Restricted to majors and minors in Music. Ensemble for percussionists.

**MUSI 323 - World Percussion Ensemble. 1 Credit.**

Offered autumn and spring. Restricted to majors and minors in Music. Ensemble for percussionists exploring global musical styles.

**MUSI 331 - Jazz Ensemble II: UM. 1 Credit.**

(R-8) Offered autumn and spring. Restricted to majors and minors in Music. Study and performance of the jazz repertoire.

**MUSI 332 - Advanced Functional Piano. 1 Credit.**

Offered intermittently. Restricted to majors and minors in music with upper-division standing. Techniques of harmonization, transposition, sight-reading, modulation, and improvisation.

**MUSI 333 - Practicum in Piano Pedagogy. 1-2 Credits.**

(R-4) Offered intermittently. Prereq. or coreq., MUSI 435 or MUSI 436. Restricted to majors and minors in Music. Student teaching of young pianists.

**MUSI 335 - Instrumental Conducting. 2 Credits.**

(R-4) Offered spring. Restricted to majors and minors in Music with upper-division standing. Conducting methods and practice. Teaching methods and materials.

**MUSI 336 - Choral Conducting. 2 Credits.**

(R-4) Offered autumn. Restricted to majors and minors in music with upper-division standing. Provides students with an introduction to choral conducting, score study, and rehearsal techniques. Students will develop an understanding of physical gesture as it relates to leading choral rehearsals and performances using a variety of literature.

**MUSI 342 - Vocal Repertoire I. 2 Credits.**

Offered autumn odd-numbered years. Restricted to majors and minors in Music with upper-division standing. Comprehensive acquaintance with styles and interpretation in British, German, and possible additional repertoire genres.

**MUSI 343 - Vocal Repertoire II. 2 Credits.**

Offered spring even-numbered years. Prereq., MUSI 342. Restricted to majors and minors in Music with upper-division standing. Comprehensive acquaintance with styles and interpretation in American, French and possible additional genres.

**MUSI 355 - Grizzly Marching Band II. 1 Credit.**

(R-4) Offered autumn. Prereq., MUSI 155A. A musical organization of brass, woodwinds, percussion, and auxiliary units open to all University students.

**MUSI 356 - Form & Analysis. 2 Credits.**

Offered autumn. Restricted to majors and minors in Music with upper-division standing. Detailed harmonic and formal analysis of representative works from the Baroque period to the present.

**MUSI 360 - Jazz Theory & Improvisation I (equivalent to 225). 2 Credits.**

Offered autumn. Restricted to majors and minors in Music. A performance oriented course to provide a basic understanding of jazz harmony. Application of scales and melodic patterns in improvising over various harmonic progressions.

**MUSI 362 - Chamber Ensemble III: UM. 1 Credit.**

(R-8) Offered autumn and spring. Restricted to majors and minors in Music and majors in the Musical Theatre Performance concentration. String, woodwind, brass, percussion, piano and vocal ensembles as appropriate to meet student needs.

**MUSI 380 - Composition III. 1-3 Credits.**

(R-6) Offered autumn and spring. Prereq., MUSI 280. Restricted to majors and minors in Music with upper-division standing. Creative writing of music.

**MUSI 381 - Music for Dance. 2 Credits.**

Offered intermittently. Requires consent of instructor. Interdisciplinary course bringing together creators of music and dance to develop, explore, and perform new music and movement together in performance. Students analyze historic and contemporary dance music and design and create a collaborative live performance for their final project.

**MUSI 388 - Concert Attendance UM. 0 Credits.**

Restricted to majors and minors in Music. All music majors must attend a minimum of 100 approved recitals/concerts prior to graduation. Students will receive recital credits each semester they are enrolled and should register for 388 the semester they apply for graduation. Successful completion of attendance requirements will be graded CR.

**MUSI 391 - Special Topics. 1-9 Credits.**

(R-9) Experimental offerings of visiting professors, experimental offerings of new courses, or one-time offerings of current topics.

**MUSI 392 - Independent Study. 1-3 Credits.**

(R-9) Offered autumn and spring. Restricted to majors and minors in Music. Course material appropriate to the needs and objectives of the individual student. Students must have projects approved by a music faculty member before enrolling.

**MUSI 395 - Applied Study III. 1-4 Credits.**

(R-12) Offered autumn and spring. Prereq., MUSI 295 and MUSI 296. Restricted to majors and minors in Music with upper-division standing. Instruction in voice, piano, organ, string, wind and percussion instruments. All private instruction requires concurrent ensemble participation.

**MUSI 399 - Junior Recital. 1-2 Credits.**

Coreq., MUSI 395. Offered autumn and spring. Public performance guided by applied music faculty during the junior year of applied study. This recital, consisting of a minimum of 20 minutes of music, may be scheduled in conjunction with another student's junior recital.

**MUSI 407 - Counterpoint I. 3 Credits.**

Offered intermittently. Restricted to majors and minors in Music with upper-division standing. Writing and analysis of contrapuntal styles through the 18th century. Level: Undergraduate



**MUSI 409 - String Pedagogy & Literature. 1-2 Credits.**

(R-4) Offered intermittently. Restricted to majors in Music with upper-division standing. Procedures and materials in class string instruction. Level: Undergraduate-Graduate

**MUSI 411 - Woodwind Pedagogy. 2 Credits.**

Offered intermittently. Restricted to majors in Music with upper-division standing. Procedures and materials in individual and class instruction are discussed. Philosophies, repertoire, individual and group techniques used in teaching woodwinds. Level: Undergraduate-Graduate

**MUSI 412 - Brass Pedagogy. 2 Credits.**

Offered intermittently. Restricted to majors in Music with upper-division standing. Procedures and materials in individual and class instruction are discussed. Philosophies, repertoire, individual and group techniques used in teaching brass instruments. Level: Undergraduate-Graduate

**MUSI 413 - Percussion Pedagogy. 2 Credits.**

Offered intermittently. Restricted to majors in Music with upper-division standing. Procedures and materials in individual and class instruction are discussed. Philosophies, repertoire, individual and group techniques used in teaching percussion instruments. Level: Undergraduate-Graduate

**MUSI 415 - Music 20th Century to Present. 3 Credits.**

Offered intermittently. Prereq., WRIT 101 and MUSI 302H. Restricted to majors and minors in Music, majors in the Musical Theatre Performance concentration, and majors in Sound Design and Media Technology with upper-division standing. Detailed analysis and comparison of selected instrumental, vocal and keyboard compositions of the 20th Century. Level: Undergraduate-Graduate

Gen Ed Attributes: Writing in the Disciplines

**MUSI 416 - Topics in Music History. 3 Credits.**

(R-9) Offered intermittently. Prereq., WRIT 101 and MUSI 302H. Restricted to majors and minors in Music, majors in the Musical Theatre Performance concentration, and majors in Sound Design and Media Technology with upper-division standing. Course materials will examine the development of musical styles, genres, forms and aesthetics important to Western music, introducing students to research methods in musicology. Level: Undergraduate-Graduate

Gen Ed Attributes: Writing in the Disciplines

**MUSI 417 - Cultural Studies in Music. 3 Credits.**

(R-9) Offered intermittently. Prereq., WRIT 101 and MUSI 302H. Restricted to majors and minors in Music, majors in the Musical Theatre Performance concentration, and majors in Sound Design and Media Technology with upper-division standing. Course materials will examine music's contemporary role within cultures and societies around the world, introducing students to research methods in cultural studies and ethnomusicology. Level: Undergraduate-Graduate

Gen Ed Attributes: Writing in the Disciplines

**MUSI 418 - Advanced Topics in Music Theory. 2 Credits.**

(R-4) Offered intermittently. Prereq., MUSI 206. Restricted to majors in Music with upper-division standing. Special topics in advanced music theory and analysis. Level: Undergraduate-Graduate

**MUSI 419 - Advanced Topics in Pedagogy. 2 Credits.**

Restricted to majors in Music with upper-division or graduate standing. Course materials explore contemporary approaches to music pedagogy and instruction.

**MUSI 420 - Jazz Pedagogy. 3 Credits.**

Offered spring even-numbered years. Restricted to majors in music with upper-division or graduate standing. Development of skills needed to rehearse and direct jazz ensembles at the middle school through high school level. Level: Undergraduate-Graduate

**MUSI 432 - Keyboard Literature. 3 Credits.**

Offered autumn even-numbered years. Restricted to majors in Music with upper-division or graduate standing. Keyboard literature from the developments of the Baroque era to the contemporary period including the suite, sonata, character pieces, etc. Level: Undergraduate-Graduate

**MUSI 433 - Keyboard Literature II. 3 Credits.**

Offered spring odd-numbered years. Restricted to majors in Music with upper-division or graduate standing. Keyboard literature from the developments of the Baroque era to the contemporary period including the suite, sonata, character pieces, etc. Level: Undergraduate-Graduate

**MUSI 435 - Piano Methods & Materials I. 3 Credits.**

Offered autumn odd-numbered years. Restricted to majors in Music with upper-division or graduate standing. Methods and materials for teaching piano classes in public schools and private studios. Procedures in teaching beginning, intermediate and advanced students in private studios. Practical demonstrations and supervised laboratory experience with children's classes. Level: Undergraduate-Graduate

**MUSI 436 - Piano Methods & Materials II. 3 Credits.**

Offered spring even-numbered years. Prereq., MUSI 435. Restricted to majors in Music with upper-division or graduate standing. Continuation of MUSI 435. Level: Undergraduate-Graduate

**MUSI 440 - Orchestration. 2 Credits.**

Offered autumn. Restricted to majors in Music with upper-division or graduate standing. Orchestrating and transcribing for orchestra and band instruments. Level: Undergraduate-Graduate

**MUSI 442 - Vocal Studio Pedagogy and Lit. 2 Credits.**

Offered autumn odd-numbered years or spring even-numbered years. Restricted to majors in Music with upper-division or graduate standing. Procedures, philosophies and terminology used in the teaching of singing. Individual and group techniques. Level: Undergraduate-Graduate

**MUSI 444 - Advanced Vocal Pedagogy. 3 Credits.**

Offered spring intermittently. Prereq., MUSI 442. Restricted to majors in Music with upper-division or graduate standing. A detailed examination of foundational vocal technique and science topics including respiration, phonation, resonance, and articulation. Offers students the opportunity to explore current topics in the field and how to approach them as a singer or voice teacher. Level: Undergraduate-Graduate

**MUSI 460 - Jazz Theory & Improvisation II. 2 Credits.**

Prereq., MUSI 360. Restricted to majors in Music with upper-division or graduate standing. Continuation of MUSI 360. Level: Undergraduate/Graduate.

**MUSI 467 - Composers' Workshop II. 1 Credit.**

Offered autumn and spring. Prereq., MUSI 267A. This is a composition workshop and new music ensemble, in which student composers and performers collaborate, guided by a faculty composer, to develop new pieces. Level: Undergraduate-Graduate

**MUSI 470 - Jazz Arranging & Composition. 3 Credits.**

Offered spring odd-numbered years. Restricted to majors in Music with upper-division or graduate standing. Composing and arranging for small to medium sized jazz ensembles. Rhythmic rewriting of melodies, re-harmonization techniques, arranging of pre-existing jazz compositions, and original compositions. Level: Undergraduate-Graduate

**MUSI 480 - Composition IV. 1-3 Credits.**

(R-6) Offered autumn and spring. Prereq., MUSI 380. Restricted to majors in Music. A continuation of composition with writing in the larger forms. Level: Undergraduate

**MUSI 491 - Special Topics. 1-9 Credits.**

(R-9) Offered intermittently. Experimental offerings of visiting professors, experimental offerings of new courses, or one-time offerings of current topics. Level: Undergraduate-Graduate

**MUSI 492 - Independent Study. 1-3 Credits.**

(R-9) Offered autumn and spring. Restricted to majors and minors in Music. Course material appropriate to the needs and objectives of the individual student. Students must have projects approved by a music faculty member before enrolling. Level: Undergraduate-Graduate

**MUSI 495 - Applied Study IV. 1-4 Credits.**

(R-12) Offered autumn and spring. Prereq., MUSI 395. Restricted to majors and minors in Music. Instruction in voice, piano, organ, string, wind and percussion instruments. Continuation of MUSI 395. All private instruction requires concurrent ensemble participation. Level: Undergraduate

**MUSI 499 - Senior Recital/Capstone Project. 1-4 Credits.**

(R-4) Offered autumn and spring. Restricted to majors in Music with upper-division standing. Level: Undergraduate

**MUSI 500 - Secondary Performance Area. 1-2 Credits.**

(R-6) Offered every term. Restricted to graduate students in Music. Requires an audition. Level: Graduate

**MUSI 511 - Advanced Conducting. 2 Credits.**

(R-6) Offered intermittently. Prereq., MUSI 335 and MUSI 336. Restricted to graduate students in Music. Class and/or individual study of the art of conducting with emphasis on performance with university performing groups. Level: Graduate

**MUSI 520 - Research in Music. 1-2 Credits.**

Offered autumn and summer. Restricted to graduate students in Music. Research problems: their statement, organization, techniques, tabulation of materials, and concepts necessary for interpretation of data. Development of a research proposal. Level: Graduate

**MUSI 526 - Seminar in Instrumental Literature. 2 Credits.**

(R-4) Offered intermittently. Restricted to graduate students in Music. Concentrated study of symphonic literature or instrumental chamber music literature. Level: Graduate

**MUSI 551 - Major Performance Area. 1-4 Credits.**

(R-12) Offered every term. Restricted to graduate students in Music. Requires audition and consent of instructor. Continuation of MUSI 495. Level: Graduate

**MUSI 552 - Ensemble. 1 Credit.**

(R-6) Participation in large music ensembles, including choirs, concert band, symphonic winds, orchestra, and jazz. Audition may be required. Level: Graduate

**MUSI 554 - Analytical Techniques I. 3 Credits.**

Offered autumn odd-numbered years. Restricted to graduate students in Music. A survey of the theoretical approach of leading composers from the polyphonic period to the present. Level: Graduate

**MUSI 555 - Analytical Techniques II. 3 Credits.**

Offered spring even-numbered years. Prereq., MUSI 554. Restricted to graduate students in Music. Continuation of MUSI 554. Level: Graduate

**MUSI 559 - Composition. 1-6 Credits.**

(R-6) Offered intermittently. Restricted to graduate students in Music. Continuation of MUSI 480. Level: Graduate

**MUSI 591 - Special Topics. 1-8 Credits.**

(R-24) Offered intermittently. Restricted to graduate students in Music. Experimental offerings of visiting professors, experimental offerings of new courses, or one-time offerings of current topics. Level: Graduate

**MUSI 592 - Independent Study. 1-6 Credits.**

(R-6) Offered intermittently. Restricted to graduate students in Music. Course material appropriate to the needs and objectives of the individual student. Students must have projects approved by a music faculty member before enrolling. Level: Graduate

**MUSI 598 - Internship. 1-6 Credits.**

(R-6) Restricted to graduate students in Music. Requires prior approval of the faculty supervisor. Extended classroom experience which provides practical application of classroom learning during placements off campus. Level: Graduate

**MUSI 599 - Thesis/Professional Project. 1-10 Credits.**

(R-10) Offered intermittently. Restricted to graduate students in Music. Preparation of a thesis, manuscript, or professional project for presentation and/or publication. Level: Graduate

**MUSI 699 - Dissertation. 1-12 Credits.**

Offered intermittently. Restricted to graduate students in Music. Preparation of a dissertation, manuscript, or professional project for presentation and/or publication. Level: Graduate

## Music Education (MUSE)

**MUSE 100 - Introduction to Music Education. 2 Credits.**

Restricted to majors in Music. This course provides an overview of the multifaceted role of a music teacher. Includes observations of local school music teachers.

**MUSE 120 - Techniques: String Instruments in Classical Music I. 1 Credit.**

(R-2) Offered autumn. Restricted to majors in Music. Group instruction for beginning students on violin, viola, cello and bass, with emphasis on teaching procedures.

**MUSE 121 - Techniques: String Instruments in Classical Music II. 1 Credit.**

(R-2) Offered spring. Restricted to majors in Music. Group instruction for beginning students on violin, viola, cello and bass, with emphasis on teaching procedures.

**MUSE 123 - Techniques: Voice. 1 Credit.**

(R-2) Offered autumn. Restricted to majors in Music. This course examines vocal function and issues associated with the physical processes of singing such as alignment, breathing, creating sound, amplifying (resonating) sound. Additionally, students will learn basic information about becoming a voice teacher (or choral director). Students will also learn about singers' diction, voice classification, and the appropriate assigning of solo classical repertoire.

**MUSE 126 - Techniques: Percussion Instruments I. 1 Credit.**

(R-2) Offered autumn. Restricted to majors in Music. Basic instruction in percussion instruments, with emphasis on teaching procedures.

**MUSE 127 - Techniques: Percussion Instruments II. 1 Credit.**

(R-2) Offered spring. Prereq., MUSE 126. Restricted to majors in Music. Continuation of MUSE 126. Basic instruction in percussion instruments, with emphasis on teaching procedures.

**MUSE 272 - Techniques: Flute & Single Reed. 1 Credit.**

(R-2) Basic instruction in flute and single-reed instruments, with emphasis on teaching procedures.

**MUSE 273 - Techniques: Double Reed. 1 Credit.**

(R-2) Offered autumn. Basic instruction in oboe and bassoon, with emphasis on teaching procedures.

**MUSE 274 - Techniques: Upper Brass. 1 Credit.**

(R-2) Offered autumn. Restricted to majors in Music. Basic instruction in trumpet and horn, with emphasis on teaching procedures.

**MUSE 275 - Techniques: Lower Brass. 1 Credit.**

Offered spring. Restricted to majors in Music. Basic instruction in trombone, baritone, and tuba, with emphasis on teaching procedures.

**MUSE 280 - Techniques: Woodwinds – Clarinet and Saxophone. 1 Credit.**

(R-2) Restricted to majors in Music. Basic instruction in clarinet and saxophone, with emphasis on teaching procedures.

**MUSE 281 - Techniques: Woodwinds - Double Reed and Flute. 1 Credit.**

(R-2) Restricted to majors in Music. Basic instruction in double reed instruments (e.g., oboe, bassoon) and flute, with emphasis on teaching procedures.

**MUSE 333 - General Music Methods & Materials I. 2 Credits.**

Offered autumn. Restricted to majors in Music with upper-division standing. Development of practical knowledge to effectively instruct and administer general music classes in the public schools, grades K-12.

**MUSE 334 - General Music Methods & Materials II. 2 Credits.**

Offered spring. Prereq., MUSE 333. Restricted to majors in Music with upper-division standing. Continuation of MUSE 333.

**MUSE 397 - Methods: K-8 Music. 2 Credits.**

Offered autumn and spring. Restricted to majors in Education. Integration of fundamental skills and basic rudiments of music into the various aspects of teaching music creatively in the elementary school. For non-music majors only.

**MUSE 425 - Technology and Materials. 2 Credits.**

Offered autumn semesters. Restricted to majors in Music. The course will provide in-depth examination of technology and print resources appropriate for use in music classrooms K-12, all areas and ensembles. Students will work independently and collaboratively to reflect upon, discuss, and practice utilizing technology and print resources for the music classroom (K-12). Level: Undergraduate

**MUSE 491 - Special Topics. 1-3 Credits.**

(R-9) Experimental offerings of visiting professors, experimental offerings of new courses, or one-time offerings of current topics. Level: Undergraduate-Graduate

**MUSE 492 - Independent Study. 1-3 Credits.**

(R-9) Restricted to majors and minors in Music. Course material appropriate to the needs and objectives of the individual student. Students must have projects approved by a music faculty member before enrolling. Level: Undergraduate-Graduate

**MUSE 497 - Methods. 2 Credits.**

(R-4) Offered Spring. Prereq., MUSE 123. Restricted to majors in Music with upper-division standing. Development of strategies for directing secondary ensembles. Focus on rehearsal techniques and literature selection. Music Education students must take both choral and instrumental sections once. Level: Undergraduate

**MUSE 521 - Psychology of Music. 2 Credits.**

Offered intermittently. Restricted to graduate students in Music. Investigation of the perception, processing and cognition of music. Psychological foundations of musical behavior: psychoacoustics, measurement and prediction of musical ability, functional music, music and society, music learning, and effective response to music. Level: Graduate

**MUSE 522 - Philosophy of Music. 2 Credits.**

Offered intermittently. Restricted to graduate students in Music. An investigation of the meaning of music, the relationship to various societies and social structures and the leading philosophical ideas which relate to music and music instruction. Level: Graduate

**MUSE 592 - Independent Study. 1-6 Credits.**

(R-12) Course material appropriate to the needs and objectives of the individual student. Level: Graduate

## Music Technology (MUST)

**MUST 110 - Digital Audio & Multitracking. 2 Credits.**

Offered autumn and spring. Composition of computer music through recording, editing, and processing sound with digital audio software. Study of the theory and application of digital audio recording, multitracking, and digital signal processing, and electroacoustic music history. Survey of historical and current electronic and computer music composers, pieces, and practices.

**MUST 192 - Independent Study. 1-3 Credits.**

(R-6) Course material appropriate to the needs and objectives of the individual student. Students must have projects approved by a music faculty member before enrolling.

**MUST 210 - Sequencing, Synthesis, and Sampling. 2 Credits.**

Offered spring even numbered years. Composition of electronic music using digital and analog synthesis methods, including software, hardware, modular, keyboard, and other electronic instruments; exploration of sampling as a composition device and its history in music-making practices; sequencing as a formal and compositional tool and the exploration of its inherent challenges and benefits; MIDI, modulation, and other non-standard input sources as a way of interacting, performing, and improvising with electronic music.

**MUST 310 - Interactivity and Digital Signal Processing. 2 Credits.**

Offered fall even numbered years. Advanced techniques for processing, mixing, designing, and producing audio in both studio and performance settings using digital, analog, software, and hardware tools; exploring the usage of industry-standard tool sets for digital audio manipulation such as compression, EQ, pitch correction, effects, etc.

**MUST 410 - Designing the Show. 2 Credits.**

Offered spring odd numbered years. Restricted to student with upper-division standing. This is an interdisciplinary, multimedia course that gives students opportunities to apply complex and detailed knowledge in music, media arts, stage production, and event management in order to create large-scale performance experiences for live audiences. Technology is used to develop and implement new ideas in performance practice, culminating in a final performance event that showcases students creative ideas and skills. Level: Undergraduate-Graduate

**MUST 491 - Special Topics. 1-6 Credits.**

(R-6) Offered intermittently. Experimental offerings of visiting professors, experimental offerings of new courses, or one-time offerings of current topics. Level: Undergraduate-Graduate

**MUST 492 - Independent Study. 1-3 Credits.**

(R-9) Offered autumn and spring. Course material appropriate to the needs and objectives of the individual student. Students must have projects approved by a music faculty member before enrolling. Level: Undergraduate-Graduate

**MUST 591 - Special Topics. 1-8 Credits.**

(R-24) Restricted to graduate students in Music. Offered intermittently. Experimental offerings of visiting professors, experimental offerings of new courses, or one-time offerings of current topics. Level: Graduate

**MUST 592 - Independent Study. 1-6 Credits.**

(R-6) Offered intermittently. Course material appropriate to the needs and objectives of the individual student. Students must have projects approved by a music faculty member before enrolling. Level: Graduate

## Native American Studies (NASX)

**NASX 105H - Introduction to Native American Studies. 3 Credits.**

Offered autumn and spring. Survey course to acquaint the student with Native American Studies by a general overview of Indian history, culture, philosophy, religious beliefs and contemporary issues.

Gen Ed Attributes: Historical Studies, Cultural & International Diversity

**NASX 141 - Elementary Blackfoot I. 5 Credits.**

Offered intermittently spring. Continuation of NASX 141.

**NASX 142 - Elementary Blackfoot II. 4 Credits.**

Offered intermittently spring. Continuation of NASX 141.

Gen Ed Attributes: Language Requirement

**NASX 180 - Event Planning. 3 Credits.**

Offered spring semester. This course is intended for students to learn the skills necessary to put on a large event. The course is intended as a hands-on experiential learning course. The culmination of the course will be putting on the annual Kyi-Yo contest pow-wow, the first large regional pow-wow of the year on the circuit.

**NASX 191 - Special Topics. 1-9 Credits.**

(R-6) Offered intermittently. Experimental offerings of visiting professors, experimental offerings of new courses, or one-time offerings of current topics.

**NASX 192 - Independent Study. 1-6 Credits.**

(R-6) Course material appropriate to the needs and objectives of the individual student.

**NASX 198 - Internship. 1-6 Credits.**

(R-6) Extended classroom experience that provides practical application of classroom learning during placements off campus. Prior approval must be obtained from the faculty supervisor. A maximum of 6 credits of Internship (198, 298, 398, 498) may count toward graduation.

**NASX 201X - Indian Culture Expressed Through Language. 3 Credits.**

Offered autumn. This course has been designed to introduce students to a non-Western perspective of the relationship that exists between Indian cultures and their languages. Students will be exposed to various languages of American Indian peoples, and how through Native languages insight can be gained into history, traditions, and cultural life-ways of Indian peoples.

Gen Ed Attributes: Cultural & International Diversity

**NASX 210X - Native American Sports & Games. 3 Credits.**

Offered intermittently. Explores Native American sports and games, both traditional and modern. Through classroom learning and actual play, students gain an understanding of how play and competition have been vital to Native communities.

Gen Ed Attributes: Cultural & International Diversity

**NASX 231X - Indigenous World View Perspectives. 3 Credits.**

Offered spring. Examination of Indigenous belief systems, with regard to world views, religious ceremonies, cultural ways and the impact that Anglo-European culture has had upon these systems. Focus on Indigenous peoples of Australia, New Zealand, Canada and the United States

Gen Ed Attributes: Cultural & International Diversity

**NASX 235X - Oral and Written Traditions of Native Americans. 3 Credits.**

Offered autumn and spring. Analysis of the oral traditions of Native Americans including an introduction to the literary works of early leading American Indian writers.

Gen Ed Attributes: Literary & Artistic Studies, Writing Across the Curriculum, Cultural & International Diversity

**NASX 239L - Native North American History & Art. 3 Credits.**

Focus on Native North American history through art and material culture and its relationship to American Indian tribally specific aesthetics, cosmologies, worldviews and life-ways, historic uses and the contemporary Indian artistic experience.

Gen Ed Attributes: Literary & Artistic Studies

**NASX 260X - Indigenous Community Development. 3 Credits.**

Offered intermittently. This course introduces the student to concepts in indigenous/rural sustainable community development in the countries of North America in broad historical and cultural frameworks.

Gen Ed Attributes: Cultural & International Diversity

**NASX 280 - Native American Studies Research Theories and Methods. 3 Credits.**

Offered intermittently. Prereq., WRIT 101. Restricted to majors in Native American Studies. Introduction to the Research materials pertaining to the study of American Indian peoples and cultures. Emphasis on current research trends and writing.

Gen Ed Attributes: Writing Across the Curriculum

**NASX 291 - Special Topics. 1-6 Credits.**

(R-9) Offered intermittently. Experimental offerings of visiting professors, experimental offerings of new courses, or one-time offerings of current topics.

**NASX 292 - Independent Study. 1-6 Credits.**

(R-6) Course material appropriate to the needs and objectives of the individual student.

**NASX 303E - Ecological Perspectives in Native American Traditions. 3 Credits.**

An examination of Native American environmental ethics and tribal and historical and contemporary use of physical environmental resources.

Gen Ed Attributes: Ethical & Human Values

**NASX 304E - Native American Beliefs and Philosophy. 3 Credits.**

Offered autumn and spring. A study of selected ethical systems; origins, world views; religious beliefs and the way they have been affected by Western civilization.

Gen Ed Attributes: Ethical & Human Values, Cultural & International Diversity

**NASX 340X - Native American Literature. 3 Credits.**

Offered intermittently. Selected readings from Native American Literature and criticism with emphasis on the literatures after the Native American literary Renaissance. A minimum of three genres covered and three culture areas.

Gen Ed Attributes: Cultural & International Diversity



**NASX 351 - Traditional Ecological Knowledge. 3 Credits.**

Offered summer. This course is one unit of the four unit Wild Rockies Summer Semester program and explores the traditional ecological perspectives of the Salish, Kootenai, Blackfeet and Tlingit people, as well as how these perspectives relate to Western concepts of ecology. Through field-based activities, lectures by tribal elders, and personal exploration, students will come to a heightened understanding of the still vital cultural perspectives and practices of modern American Indians, particularly in the Rockies of Montana and Canada.

**NASX 352 - Montana's Indians and Land. 3 Credits.**

Offered autumn. This course is one unit of the four unit Montana Afoot & Afloat: Human/Land Relations fall semester program. This course gives students a greater understanding of Indian people's traditional relationships with the land in Montana and an understanding of how and why those relationships may have changed. Extensive time will be spent on the Fort Belknap, Northern Cheyenne, and Crow Reservations where the class will meet with tribal elders and learning will have an emphasis on environmental and tribal/land relationships.

**NASX 354X - Indians of Montana since the Reservation Era. 3 Credits.**

Offered intermittently. Examination of the history of Montana Indians since the establishment of the reservations, contemporary conditions, and issues among both reservation and non-reservation Indian communities in the state. Special attention given to social and economic conditions, treaty rights, tribal sovereignty, and legal issues. Gen Ed Attributes: Cultural & International Diversity

**NASX 360 - Native Americans and Cinema. 3 Credits.**

Offered intermittently. Surveys the image of Native Americans in American film with an emphasis on "revisionist," or "breakthrough" films. Ultimate focus will be on films featuring Native American writers, directors and actors.

**NASX 391 - Special Topics. 1-6 Credits.**

(R-9) Offered intermittently. Experimental offerings of visiting professors, experimental offerings of new courses, or one-time offerings of current topics.

**NASX 392 - Independent Study. 1-12 Credits.**

(R-12) Course material appropriate to the needs and objectives of the individual student.

**NASX 394 - Seminar. 1-6 Credits.**

(R-6) A review and discussion of current research. Topics vary.

**NASX 398 - Internship. 1-6 Credits.**

(R-6) Extended classroom experience that provides practical application of classroom learning during placements off campus. Prior approval must be obtained from the faculty supervisor. A maximum of 6 credits of Internship (198, 298, 398, 498) may count toward graduation.

**NASX 405 - Gender Issues in Native American Studies. 3 Credits.**

Offered intermittently. Focus on American Indian gender relations and their cultural continuity and historical evolution. National in scope with concentration on certain tribes. Group analysis of contemporary gender issues relevant to Native American peoples. Level: Undergraduate

**NASX 430 - American Indian Education. 3 Credits.**

Offered intermittently. An overview of American Indian education including a look at the unique needs of Indian children. Level: Undergraduate-Graduate

**NASX 475 - Tribal Sovereignty. 3 Credits.**

Offered spring. An examination of the evolution of tribal governments from a historical and political perspective. Particular attention is devoted to the issues of tribal sovereignty and tribal-state conflicts. Level: Undergraduate-Graduate

**NASX 479 - Tribal Governance and Policymaking. 3 Credits.**

(R-6) Offered spring. Prereq., NASX 475. This course examines the evolution of tribal governing structures with a focus on contemporary formal tribal policy making processes, practices, and outcomes. The class concludes with an exploration of the limitations and challenges, as well as the benefits and opportunities, presented to tribal leaders and community members by these modern-day forms of tribal government. Course co-convenes with NASX 579. Level: Undergraduate

**NASX 491 - Special Topics. 1-6 Credits.**

(R-6) Experimental offerings of visiting professors, experimental offerings of new courses, or one-time offerings of current topics. Level: Undergraduate-Graduate

**NASX 492 - Independent Study. 1-6 Credits.**

(R-6) Course material appropriate to the needs and objectives of the individual student. Level: Undergraduate-Graduate

**NASX 494 - Seminar. 3 Credits.**

(R-6) Offered intermittently. A review and discussion of current research. Topics vary. Reading Seminar in Native American Studies – Offered spring. Restricted to majors or minors in Native American Studies with at least junior standing. Senior reading capstone course for the review of past and current literature on and by American Indians. Level: Undergraduate-Graduate  
Gen Ed Attributes: Writing in the Disciplines

**NASX 495 - Practicum. 1-6 Credits.**

(R-6) Supervised, practical experience in a professional setting relevant to the student's field of study. Level: Undergraduate-Graduate

**NASX 499 - Senior Capstone/Thesis. 3-9 Credits.**

(R-9) Restricted to majors or minors in Native American Studies with at least junior standing. Independent research project in Native American Studies supervised by a faculty member and leading to completion of the baccalaureate degree. Level: Undergraduate

**NASX 521 - Indigenous Worldview and Education. 3-6 Credits.**

The seminar will provide an opportunity for students from multiple sites to engage in the comparative study of issues associated with the education of Indigenous peoples and communities on an international scale with an emphasis on the role of language and culture through a review of educational practices and theories that have emerged from a variety of sources. Students may take the course once or a second year in sequence; some site instructors may change. The course is teleconferenced among University of Montana and the Universities of Hawaii Hilo, Alaska Fairbanks and Anchorage, Arizona, British Columbia, Dene (Navajo) College, and Te Whare Wananga o Awanuiarangi-Whakatane (New Zealand). No prerequisites apply; letter grades given, based on collaborative local and international projects, short response papers, and a term paper. Students be confident in using the internet. Level: Graduate

**NASX 540 - Intersectionality of American Indians, Disability, and Rurality. 3 Credits.**

Grades will be determined through quizzes, weekly zoom discussions (can be asynchronistic) with response papers, group projects, and a digital storytelling project.



**NASX 579 - Tribal Governance and Policymaking. 3 Credits.**

(R-6) Offered spring. This course examines the evolution of tribal governing structures with a focus on contemporary formal tribal policy making processes, practices, and outcomes. The class concludes with an exploration of the limitations and challenges, as well as the benefits and opportunities, presented to tribal leaders and community members by these modern-day forms of tribal government. Course co-convenes with NASX 479. Level: Graduate

**NASX 580 - Native American Studies Research Theories/Methods. 3 Credits.**

Offered autumn. An exploration of research materials pertaining to the study of American Indian peoples and cultures, with an emphasis on current research trends and writing. Level: Graduate

**NASX 591 - Special Topics. 1-9 Credits.**

(R-24) Experimental offerings of visiting professors, experimental offerings of new courses, or one-time offerings of current topics. Level: Graduate

**NASX 592 - Independent Study. 1-6 Credits.**

(R-6) Offered intermittently. Course material appropriate to the needs and objectives of the individual student. Level: Graduate

**NASX 594 - Seminar. 1-3 Credits.**

(R-6) Offered intermittently. A review and discussion of current research. Topics vary. Level: Graduate

**NASX 598 - Internship. 1-6 Credits.**

(R-6) Offered intermittently. Extended classroom experience that provides practical application of classroom learning during placements off campus. Prior approval must be obtained from the faculty supervisor. Level: Graduate

## Natural Resource Science and Management (NRSRM)

**NRSRM 110 - First Year Seminar in Environmental Science and Sustainability. 1 Credit.**

Offered autumn. This First Year Seminar introduces students to key issues in environmental science and sustainability, with a focus on how science can be applied to problem-solving. Students will also learn about key resources at the university and focus on the skills needed to ensure their success at UM.

**NRSRM 115 - First Year Seminar in Field Studies in Conservation. 1 Credit.**

Offered autumn. Restricted to student with freshman and sophomore standing. Field study focusing on flora and fauna, history of land use and ecological change, contemporary forest management, conservation and community development in western Montana.

**NRSRM 121S - Environmental Science and Sustainability. 3 Credits.**

Offered autumn. An exploration of the major environmental science and sustainability issues facing humankind and the social processes required to manage environmental conflicts. Provides an introduction to the function of ecological systems and the impacts of human uses on the environment and explores strategies for addressing global climate change, ex-urban population growth, and environmental degradation. Gen Ed Attributes: Social Sciences

**NRSRM 191 - Special Topics. 1-6 Credits.**

(R-6) Offered intermittently. Experimental offerings of visiting professors, experimental offerings of new courses, or one time offerings of current topics.

**NRSRM 192 - Independent Study. 1-3 Credits.**

(R-6) Course material appropriate to the needs and objectives of the individual student.

**NRSRM 194 - Seminar. 1-6 Credits.**

(R-6) Offered intermittently. A review and discussion of current research. Topics vary.

**NRSRM 211N - Soils and Water. 2 Credits.**

Prereq., M 115 or higher. This course introduces students to the physical, chemical, and biological properties of soils with an emphasis on how water moves into and out of soils. The course explores many fundamental soil science concepts with an emphasis on how soils govern water movement in ecosystems.

Gen Ed Attributes: Natural Science

**NRSRM 212N - Ecology, Physics and Taxonomy of Soils. 1 Credit.**

Prereq., or corequisite NRSRM 211N. This field and laboratory course will strengthen student comprehension of concepts and theory presented in NRSRM 211N through a series of hands-on field and laboratory-based experiments. Over the course of the semester, students will be exposed to a suite of soil and water analysis techniques and will be able to describe and understand the relationships among soils, soil-water physics, nutrients, and vegetation on the landscape. Up to half of the field labs will take place at forest and grassland sites off campus. Students must be able to travel up to one mile uphill on trails in rocky and uneven terrain to access sites.

Gen Ed Attributes: Natural Science Lab Course, Natural Science

**NRSRM 265 - Ecosystem Restoration. 3 Credits.**

Offered autumn. Overview of the natural and human dimensions of ecosystem restoration, including the ecological concepts and management practices involved in recovering biodiversity and ecological integrity in terrestrial and aquatic habitats, philosophical and ethical challenges involved, and current initiatives in Montana and the United States. Includes Saturday field trips.

**NRSRM 271N - Conservation Ecology. 3 Credits.**

Offered autumn. Restricted to students in the Wilderness Studies minor. An overview of ecological concepts and how ecology is applied to further our understanding of ecosystems and conservation. Topics include: ecosystems functions and values, biomes, natural selection and speciation, biodiversity, succession, climate change, fragmentation, protected areas, impacts of exotic species and other human influences on ecosystem functions.

Gen Ed Attributes: Natural Science

**NRSRM 273 - Wilderness and Civilization Field Studies. 4 Credits.**

Offered autumn. Restricted to students in the Wilderness Studies minor. Field skills for outdoor work and expedition planning, including navigation, wildlife conflict mitigation, field natural history and field journaling. One-day trips as well as extended backcountry trips.

**NRSRM 281 - Science of Climate Change. 3 Credits.**

This course provides an introduction to Earth's climate system and the scientific evidence of climate change. It explores how past climate has shaped Earth's ecosystem and how humans are currently altering Earth's climate system as well as potential future climate scenarios. Through this course students will gain a better understanding of Earth's energy budget, the global carbon cycle, and potential impacts of climate change.

**NRSRM 291 - Special Topics. 1-12 Credits.**

(R-12) Offered intermittently. Experimental offerings of visiting professors; new courses or one time offerings of current topics.

**NRSM 298 - Internship. 1-6 Credits.**

Offered every term. Extended classroom experience that provides practical application of classroom learning during placements off campus. Prior approval must be obtained from the faculty supervisor. A maximum of 6 credits of Internship (198, 298, 398, 498) may count toward graduation.

**NRSM 311 - Field Studies in Ecosystems and Human Communities. 2-3 Credits.**

(R-12) Offered every term. Offered by the Wild Rockies Field Institute. Via extended backcountry travel, this course is an experiential examination of the structure and function of the ecosystems occurring within the course area. It also investigates the relationship of those ecosystems with the people that manage, live, and work in the area.

**NRSM 321 - Field Studies and Energy Systems in Montana. 2-3 Credits.**

Offered summer. Via an extended bicycle tour of Montana, students examine a variety of energy developments and their environmental, social, and economic implications.

**NRSM 326 - Climate and Society. 3 Credits.**

Offered autumn. This course examines the social and political aspects of climate change with a focus on international and domestic processes and cases. Students examine climate impacts and solutions through the lens of social science and social theory. More specifically, they examine social vulnerability, conflict over climate action, the role of behavior change, climate policy at multiple scales, and adaptation strategies for range of contexts.

**NRSM 345 - Watershed Dynamics and Management Issues. 3 Credits.**

Restricted to students in the Wilderness Studies minor. Students investigate watershed function; introductory stream hydrology and morphology; and fish, amphibian and aquatic furbearer habitat characteristics. The course also explores impacts of road building, timber harvest, watershed fragmentation, and irrigated agriculture on watershed and stream function, fish habitat, and fish populations.

**NRSM 346 - Forest and Communities. 3 Credits.**

Coreq., ENST 291 and NRSM 345. Offered by Northwest Connections. Via backcountry travel and hands on field application in rural Montana, students will be immersed in the ecology of forested ecosystems in Northwest Montana, including plant succession, fire ecology, soil science, and wildlife ecology.

**NRSM 349E - Climate Change Ethics and Policy. 3 Credits.**

Offered autumn. This course focuses on the ethical dimensions of climate change policy. It will cover the following major topics: (1) climate change, personal and collective responsibilities, (2) ethics, climate change and scientific uncertainty, (3) distributive justice and international climate change negotiations, (4) intergenerational justice and climate change policy.

Gen Ed Attributes: Ethical & Human Values

**NRSM 352 - Mountain Environment and Development. 3 Credits.**

Offered summer only. Coreq., PTRM 353. This course covers the contentious issues surrounding environment and development in the Himalaya using the Garhwal region of India as the example.

**NRSM 360 - Rangeland Management. 3 Credits.**

Offered autumn. Restricted to students with at least junior standing. An introduction to rangelands and their management, grazing influences, class of animal, grazing capacity, control of livestock distribution, improvements, competition and interrelationships with wildlife. Laboratory exercises to gain on-site experience on topics and concepts presented in lectures.

**NRSM 370S - Wildland Conservation Policy/Governance. 3 Credits.**

Offered autumn. Restricted to students in the Wilderness Studies minor. Examination of the historical, philosophical, and legislative background for development and management of our national system of wilderness areas, wild and scenic rivers, trails, and national parks and their place in our social structure.

Gen Ed Attributes: Social Sciences

**NRSM 371 - Wilderness Issues Lecture Series. 1 Credit.**

(R-3) Offered spring. Explores current issues in wilderness preservation, management and research.

**NRSM 373 - Wilderness and Civilization. 2 Credits.**

Offered autumn. Restricted to students in the Wilderness Studies minor. Social, cultural, and scientific perspectives on the wilderness idea and wildland conservation. Course topics include history of wilderness and the wilderness movement, various philosophical and ethical viewpoints on and critiques of wilderness, and how wilderness fits into larger landscapes and societies.

**NRSM 374 - Yellowstone Studies. 1 Credit.**

Offered spring. Ecological and sociopolitical perspectives on the greater Yellowstone ecosystem. Topics include winter ecology, biodiversity conservation, national park planning and management, winter recreation, fire, and wildlife. Field course in the Yellowstone area.

**NRSM 379 - Collaborations in Natural Resource Decisions. 3 Credits.**

Offered spring. Political and social processes affecting natural resource decisions. Examination of cases of multi-party collaboration in forestry, range, and watershed management issues.

**NRSM 385 - Watershed Hydrology. 3 Credits.**

Offered autumn and spring. Prereq., M 115 or M 121 or M 122 or M 151 or M 162 or M 171 or M 172. An introduction to physical and biological controls over water movement and storage in the environment, and how those controls are affected by land management practices.

**NRSM 389E - Ethics and Sustainability. 3 Credits.**

Offered autumn. Restricted to students with at least sophomore standing. Investigation of ethical questions arising from 21st Century challenges of building just and sustainable societies, with a focus on issues related to natural resources, biodiversity, ecological restoration, environmental policy, and climate change.

Gen Ed Attributes: Ethical & Human Values

**NRSM 391 - Special Topics. 12 Credits.**

(R-12) Offered intermittently. Experimental offerings of visiting professors; new courses or one time offerings of current topics.

**NRSM 392 - Independent Study. 1-3 Credits.**

(R-9) Course material appropriate to the needs and objectives of the individual student.

**NRSM 395 - Community-Based Approaches to Wildlife Conservation. 1-6 Credits.**

(R-6) Offered each summer by Northwest Connections. Coreq., ENST 395 Wildlife Policy. Via field-based study in western Montana, students learn emerging strategies for reducing human-wildlife conflicts while considering ecological, economical, and societal impacts. The course emphasizes the multiple perspectives of stakeholders and the importance of striving for collaborative solutions to conflicts over wildlife management and controversial species.

**NRSM 398 - Internship. 1-6 Credits.**

Offered every term. Extended classroom experience that provides practical application of classroom learning during placements off campus. Prior approval must be obtained from the faculty supervisor. A maximum of 6 credits of Internship (198, 298, 398, 498) may count toward graduation.

**NRSM 404 - Wilderness in American Context. 4 Credits.**

An expansive treatment of the history of the wilderness preservation movement in the United States. Introduction to the successive influences of philosophy, science, art and politics on society's relationship with wilderness. Discussion of the Wilderness Act of 1964. Level: Undergraduate

**NRSM 405 - Management of Wilderness Resource. 4 Credits.**

An ecology-based treatment of wilderness management. Brief overview of fundamental ecological principles followed by an examination of their specific and often unique applications to wilderness ecosystems. Presentation of basic wilderness management principles and guidelines. Discussion of nonconforming wilderness uses. Level: Undergraduate

**NRSM 406 - Wilderness Management Planning. 3 Credits.**

Exploration of basic planning theory, concepts, effective plan writing, and the characteristics of successful planning and implementation.

In-depth treatment of the Limits of Acceptable Change planning framework. Comparison and evaluation of the different planning approaches used by the four wilderness managing agencies. Level: Undergraduate

**NRSM 408 - Natural Climate Solutions. 3 Credits.**

Offered spring even-numbered years. The course explores the Earth's major biogeochemical cycles, how they are linked, how they have been altered by human activities, and how they influence the global climate system. Students will then apply that understanding to investigate and critically evaluate a number of proposed natural climate change solutions through a biogeochemical lens. Level: Undergraduate

**NRSM 415 - Environmental Soil Science. 3 Credits.**

Offered spring odd-numbered years. Prereq., NRSM 210N. A detailed analysis of the physical, chemical and biological properties of soils and how they function, with a focus on soil processes and how they affect, and are affected by human activities. Specific topics include element cycling, water quality, the effects of environmental change soil biogeochemistry, plant-soil interactions, and the consequences of large-scale disturbances on soil processes. Level: Undergraduate-Graduate

**NRSM 418 - Ecosystem Climatology. 3 Credits.**

Interactions between the biosphere and atmosphere to advanced undergraduate students and graduate students. This course will explore the interactions between Earth's biosphere and atmosphere and how they affect climate over a range of scales. We will focus on the exchange of energy, mass, and important elements between the biosphere and atmosphere and how this exchange can lead to fascinating feedbacks in Earth's climate system. Basic physics and math is not required but it is recommended. Level: Undergraduate-Graduate

**NRSM 422 - Natural Resources Policy. 3 Credits.**

Offered autumn and spring. Policy formation in the United States and a survey of the major resource policies interpreted in their historical and political contexts. Level: Undergraduate

**NRSM 427 - Water Policy. 3 Credits.**

Offered spring. Restricted to students with at least junior status. This course explores the laws, policies, and judicial decisions that have shaped and continue to influence patterns of water allocation and access in the United States. The course offers a general introduction to U.S. water law, specifically highlighting regional and interstate differences in both surface and groundwater appropriation schemes. Important intersections between water policy and other major bodies of U.S. law and policy are investigated, including the U.S.-tribal trust responsibility, the Clean Water Act the Endangered Species Act, and federal hydropower relicensing processes. In addition, special attention is paid to unique aspects of Montana water law and policy as well as current issues of local and regional importance. Level: Undergraduate-Graduate

**NRSM 428 - Climate Policy. 3 Credits.**

Offered autumn, odd years. This course explores the evolving laws, policies, and judicial decisions that influence levels of carbon dioxide emissions and other climate altering activities occurring in the United States and globally. This course includes a thorough overview of global climate policy including the structure of the United Nations Framework Convention on Climate Change (UNFCCC) and policies resulting from the various Conference of Parties (COP) meetings, including the Paris Agreements. From this starting point, the course then explores similar issues at the nation state and sub-national scale, including an investigation of how various proactive emissions regulations and reactive mitigation and adaptation activities are treated in both statutory and administrative legal regimes. Level: Undergraduate-Graduate

**NRSM 462 - Rangeland Ecology. 3 Credits.**

Offered spring. Prereq., NRSM 210N; and BIOO 105N or BIOB 170N or BIOE 172N or BIOB 160; and FORS 201 or STAT 216 or SOCI 202 or WILD 240 or PSYX 222. We will discuss the ecological principles and processes that drive the structure and function of rangeland ecosystems. We will focus on the intersections of plant, animal, ecosystem, and landscape ecology. We will weave in discussions of management to understand how rangeland dynamics contribute and respond to differing management paradigms. Level: Undergraduate-Graduate

**NRSM 465 - Restoration Ecology. 3 Credits.**

Offered spring. Prereq., WRIT 101 and NRSM 265. Restricted to students with at least junior standing or graduate students. This course covers the primary ecological theories that inform the practice of ecological restoration. Topics include the dynamic nature of ecological systems, community assembly, biodiversity and ecosystem functioning, food web dynamics, ecological engineering, macroecology, and statistical issues and study design. Level: Undergraduate-Graduate  
Gen Ed Attributes: Writing in the Disciplines

**NRSM 475 - Environment & International Development. 3 Credits.**

Offered fall. Examines key social forces that influence how individuals, groups and nation-states understand and live within their bio-physical environments, especially policies and processes relating to international development, capitalism, globalization, culture, class and other forms of power. Pays close attention to ways both indigenous and introduced resource use and management practices (including conservation) variably impact people of different races, classes, genders, cultures and livelihood practices. Considers implications of these processes for current efforts to transition to clean energy, conserve biodiversity, and feed the world. Co-convenes with NRSM 575. Level: Undergraduate

**NRSM 490 - Undergraduate Research. 1-15 Credits.**

(R-15) Independent undergraduate research in forest management, wood science, soils, wildlife management, silviculture, recreation and other topic areas. Level: Undergraduate

**NRSM 491 - Special Topics. 1-12 Credits.**

(R-9) Offered intermittently. Experimental offerings of visiting professors; new courses or one time offerings of current topics. Level: Undergraduate-Graduate

**NRSM 492 - Independent Study. 1-3 Credits.**

(R-9) Course material appropriate to the needs and objectives of the individual student. Level: Undergraduate-Graduate

**NRSM 494 - Ecosystem Science and Restoration Seminar. 1 Credit.**

Offered spring. Prereq., NRSM 495. Restricted to students with senior standing. This seminar provides a forum for students to share the results of practicum projects conducted in NRSM 495. Each student will lead at least one seminar during the semester. Level: Undergraduate

**NRSM 495 - Practicum. 1-6 Credits.**

(R-6) Supervised, practical experience in a professional setting relevant to the student's field of study.

**NRSM 498 - Internship. 1-6 Credits.**

Offered every term. Extended classroom experience that provides practical application of classroom learning during placements off campus. Prior approval must be obtained from the faculty supervisor. A maximum of 6 credits of Internship (198, 298, 398, 498) may count toward graduation. Level: Undergraduate-Graduate

**NRSM 499 - Senior Thesis. 1-3 Credits.**

(R-3) Offered autumn and spring. Restricted to students with senior standing. Preparation of a major paper based on study or research in a field selected according to the needs and objectives of the student. Level: Undergraduate-Graduate

**NRSM 500 - Conservation and Social Science Methods. 3 Credits.**

Offered autumn. Students should have completed a course in statistics. The nature of scientific research, planning research projects, organization and presentation of research results. Level: Graduate

**NRSM 513 - Natural Resource Conflict Resolution. 3 Credits.**

Offered autumn. Same as ENST 513 and LAW 613. Examines the basic framework for preventing and resolving natural resource and environmental conflicts in America. Reviews the history of alternative approaches, emphasizes the theory and practice of collaboration, and considers future trends. This highly interactive course uses lectures, guest speakers, case studies, and simulations. Level: Graduate

**NRSM 515 - Collaborative Skills for Natural Resource Leaders. 3 Credits.**

Same as ENST 515 and LAW 519. This course prepares students to effectively engage in multiparty negotiation on natural resource and environmental issues. It is grounded in theory and provides an opportunity to develop practical skills in both negotiation and facilitation/mediation. Guest speakers, case studies, and simulations allow students to develop, test, and refine best practices. The course is face-paced, highly interactive, and serves as the second of three required courses in the Natural Resources Conflict Resolution Program. Level: Graduate

**NRSM 526 - Climate and Society. 3 Credits.**

Offered spring. This course applies relevant social and political theory to the problem of climate change and examines the social science of climate change. Co-convened with NRSM 426. Level: Graduate

**NRSM 532 - Forest Ecosystem Analysis. 3 Credits.**

Offered spring. Logical strategies for transforming ecosystem complexity into simplified simulation models with emphasis on space/time scaling and environmental policy relevance. Level: Graduate

**NRSM 541 - Food-Energy-Water Nexus Field Lab. 2 Credits.**

(R-4) Offered spring. Field-based course connecting theory and practice by examining food-energy-water case studies, conducting interdisciplinary synthesis, and communicating with diverse stakeholders. Combines intermittent in-class meetings and a week-long field trip to regional sites to examine food-energy-water issues on-the-ground and to meet with and learn from producers, managers, policy-makers, and tribal members.

**NRSM 542 - Food-Energy-Water Nexus Seminar. 1 Credit.**

(R-4) Offered autumn and spring. Autumn seminars will focus on building interdisciplinary knowledge of the food-energy-water nexus through presentations from guest speakers, readings, and domestic and international case studies. Spring seminars will focus on building skills for multiple career paths through presentations and guest lectures.

**NRSM 560 - American Wilderness Philosophy & Policy. 4 Credits.**

History of the American Wilderness idea and associated policies, including the Wilderness Act and implementing regulations. Current management challenges also covered. Level: Graduate

**NRSM 561 - Management of Wilderness Ecosystems. 4 Credits.**

Ecosystem science and policies and management practices related to managing specific resources, such as air, wildlife, and water, within wilderness. Management of non-conforming uses is also covered. Level: Graduate

**NRSM 563 - Wilderness Planning. 4 Credits.**

Planning theory and effective plan development, including principles and practices of public involvement. Includes examination of primary planning frameworks. Level: Graduate

**NRSM 570 - Political Ecology. 3 Credits.**

Graduate seminar on key theories, issues and literature in the subfield of Political Ecology, an interdisciplinary environmental social science approach which integrates how political, economic, cultural and ecological processes interact and shape society nature relations. Case examples are drawn from both the North and South. Level: Graduate

**NRSM 571 - International Conservation & Development. 3 Credits.**

Offered spring. Critical review of selected international natural resource development, conservation and management approaches and experiences. Level: Graduate

**NRSM 574 - Perspectives in Human Dimensions. 3 Credits.**

This course will provide graduate students with an understanding of multiple perspectives in human dimensions of natural resources. The course is intended to be broad in nature in order to provide students with a comprehensive understanding of the topics. Students will read and discuss foundational pieces by Orr and Leopold (among others) and explore newer readings on current research. The course will cover social psychological and sociological perspectives and discuss key issues such as scale, multidisciplinary research, sustainability and social diversity in natural resources. Students will be challenged to approach natural resources issues from multiple perspectives, not just the perspective they are most familiar with. Students will be able to communicate effectively among social scientists and be able to integrate diverse perspectives. Level: Graduate



**NRSM 575 - Environment & International Development. 4 Credits.**

Offered fall. Examines key social forces that influence how individuals, groups and nation-states understand and live within their bio-physical environments, especially policies and processes relating to international development, capitalism, globalization, culture, class and other forms of power. Pays close attention to ways both indigenous and introduced resource use and management practices (including conservation) variably impact people of different races, classes, genders, cultures and livelihood practices. Considers implications of these processes for current efforts to transition to clean energy, conserve biodiversity, and feed the world. Co-convenes with NRSM 475 and includes an additional graduate discussion section. Level: Graduate

**NRSM 579 - Practicum in Collaborative Conservation. 3 Credits.**

(R-4) Offered every semester. Prereq., ENST 513 or NRSM 513. Same as ENST 579. Designed as the capstone experience of the Natural Resources Conflict Resolution Program. Provides practical experience in multi-party collaboration and conflict resolution. Students may design their own project in consultation with the director of the NRCR Program, or participate in a project organized and convened by faculty. Projects may be conducted year-round. Co-convened with LAW 679. Level: Graduate

**NRSM 584 - Sustainable Protected Area Management and Tourism. 3 Credits.**

This course will explore the intersection of social, cultural, environmental, and economic aspects of protected area management in relation to sustainability of resources, tourism, visitor management, conservation, and community development. Case study examples from diverse contexts, settings, and types of terrestrial and aquatic protected areas within the U.S. and around the world will illustrate the complexity of protected area management in a time of rapid change.

**NRSM 590 - Graduate Research. 1-15 Credits.**

(R-15) Offered every term. Independent graduate research in forest management, wood science, soils, wildlife management, silviculture, recreation and other topic areas. Level: Graduate

**NRSM 591 - Special Topics. 1-12 Credits.**

(R-18) Offered intermittently. Experimental offerings of visiting professors, experimental offerings of new courses, or one time offerings of current topics. Level: Graduate

**NRSM 592 - Independent Study. 1-12 Credits.**

(R-12) Offered every term. Course material appropriate to the needs and objectives of the individual student. Level: Graduate

**NRSM 594 - Seminar. 1-4 Credits.**

(R-8) Offered intermittently. Presentations by student, faculty, and associates on issues and topics in their field. Level: Graduate

**NRSM 598 - Internship. 1-2 Credits.**

(R-12) Offered every term. Practical application of academic learning in an off-campus placement. Prior approval must be obtained from faculty supervisor. Level: Graduate

**NRSM 599 - Professional Paper. 1-15 Credits.**

(R-15) Offered every term. Professional paper preparation. Level: Graduate

**NRSM 622 - Advanced Problems in Environmental Policy. 3 Credits.**

Offered spring even-numbered years. Examines environmental policy problems and contemporary issues in environmental policy, law, and administration. Policy tools, concepts and research resources introduced. Numerous problems, themes, and issues in environmental policy analyzed. Readings-based seminar; students lead most reviews and discussions. Level: Graduate

**NRSM 690 - Graduate Research. 1-15 Credits.**

(R-30) Offered every term. Independent graduate research in forest management, wood science, soils, wildlife management, silviculture, recreation and other topic areas. Level: Graduate

**NRSM 691 - Special Topics. 1-12 Credits.**

(R-12) Experimental offerings of visiting professors, experimental offerings of new courses, or one-time offerings of current topics. Level: Graduate

**NRSM 699 - Thesis. 1-15 Credits.**

(R-20) Offered every term. Thesis/dissertation preparation. Level: Graduate

## Neuroscience (NEUR)

**NEUR 110N - Introduction to Brain Diseases. 3 Credits.**

Offered spring. This course is designed to provide both non-science and science students with a basic understanding of brain diseases and injuries, such as spinal cord injury, Alzheimer's disease, Parkinson's disease, amyotrophic lateral sclerosis (ALS), epilepsy, depression, and addiction.

Gen Ed Attributes: Natural Science

**NEUR 280 - Fundamental Neuroscience. 3 Credits.**

Prereq., BIOB 160 and BIOB 161N. Course will focus on the molecular and cellular underpinnings of the functions of the brain and nervous system. The topics will range from the basis of electrical and chemical signaling to the organization of the sensory systems and mechanisms involved in learning, memory, and complex behaviors.

**NEUR 281 - Fundamentals of Neuroscience II: Cognition. 3 Credits.**

Offered spring. Prereq., NEUR 280. Explores the foundational understanding of the sensory systems, cognitive processing, perception, and memory. Specific topics include: the organization of sensory systems, the control of movement; mechanisms for learning, memory, and complex behaviors.

**NEUR 292 - Independent Study. 1-6 Credits.**

(R-6) Offered intermittently. Independent study is designed to assist individual students in studying and understanding key topics in the neuroscience curriculum through individual mentoring, tutoring and/or self-directed learning.

**NEUR 380 - Molecular Neuroscience. 3 Credits.**

Prereq., BIOB 260 and NEUR 280. The material covered will give students a practical knowledge of the subcellular organization and function of the nervous system. Students will learn how brain energy metabolism is a dynamic, and highly regulated process. We will explore the variety forms of neuronal chemical communication that may not conform to basic concepts of synaptic signaling. We will study processes that are involved in the growth and guidance of axons leading to the formation as well as the elimination of synapses. We will learn about the processes that are involved in the regulation of sexual differentiation of the nervous system. We will explore the basic mechanisms involved in learning and memory. Finally, Students will learn about the molecular and cellular mechanisms associated with neurodegenerative disease.

**NEUR 390 - Undergraduate Research. 1-10 Credits.**

(R-10) Independent research under the direction of a faculty member.

**NEUR 391 - Special Topics. 1-6 Credits.**

(R-6) Offered intermittently. Experimental offerings of visiting professors, experimental offerings of new courses, or one-time offerings of current topics.



**NEUR 392 - Independent Study. 1-6 Credits.**

(R-6) Offered intermittently. Independent study is designed to assist individual students in studying and understanding key topics in the neuroscience curriculum through individual mentoring, tutoring and/or self-directed learning.

**NEUR 409 - Human Neuroanatomy. 3 Credits.**

Prereq., NEUR 380. This neuroanatomy course will outline the fundamental relationship between the structure and function of the central and peripheral nervous systems using both preserved specimens and advanced technology. Neuroscience, Pre-Med, Psychology, and Human Biology majors will find this course directly related to their future professions.

**NEUR 441 - CNS Diseases. 3 Credits.**

Offered autumn. Prereq., NEUR 280, BIOB 260, and BIOB 272. This course is designed as a special topics course within the new neuroscience major that focuses on developing an understanding of common diseases affecting the Central Nervous System (CNS), such as stroke, traumatic brain injury, Alzheimer disease, Parkinson's disease, schizophrenia, amyotrophic lateral sclerosis, epilepsy, etc.) For each of the CNS disorders surveyed (which will vary from year to year), an emphasis will be placed on framing the symptoms and etiology of the disease within the context of the normal neuronal function at the anatomical, cellular and molecular levels. Where feasible, lectures will be supplemented with presentations by clinicians with expertise in the field. Students will also develop an appreciation for the linkages between basic and translational research in neurological diseases as well as the importance of disease models in the development of new therapies. Level: Undergraduate

**NEUR 458 - Neuroscience Research Techniques Lab. 4 Credits.**

Offered autumn. Restricted to Neuroscience majors with senior standing. Theory and practical experience in neuroscience experiment design, data collection, results analysis and report creation. Students will generally assist with ongoing research as well as attend formal classroom presentations and discussions. Students will be required to work with the course writing instructor to undertake the writing process and develop a primary literature review, an abstract and final report based on the experiments conducted and the data collected. Students with well-developed research ideas and skills may be allowed to undertake supplemental independent research. Level: Undergraduate  
Gen Ed Attributes: Writing in the Disciplines

**NEUR 475 - Neuropharmacology. 3 Credits.**

Prereq., NEUR 280 and NEUR 380. This course will provide students with a better understanding of the chemical signaling systems in the brain, how these systems change in disease, and how drugs modulate their activity. The course should be of particular interest to Neuroscience, Pre-Med, Psychology, Chemistry, Biochemistry, and Human Biology majors. Level: Undergraduate-Graduate

**NEUR 481 - Systems Neuroscience of Behavior and Cognition. 3 Credits.**

Prereq., PSYX 250N or NEUR 280. This course examines how collections of neurons work together to generate behavior and cognition. Basic principles of neuron circuits will be examined in the context of psychological constructs like spatial awareness, object recognition, planning, memory, and emotion. A particular focus of this class is the physiology of the forebrain, and understanding behavior by understanding how these systems "compute." Level: Undergraduate-Graduate

**NEUR 485 - Neurolinguistics. 3 Credits.**

This course will introduce students to Neurolinguistics, the study of language in the brain, reviewing theories of how language is processed in the mind and the organizational bases of language within the human nervous system. The course includes information on the history of neurolinguistics, modern techniques and methods of neurolinguistic research, and also provides detailed examples of several recent studies in the field. We will discuss how language maps onto the brain in "time" and "space" from the perspective of different theoretical models, examining linguistics components of sound, meaning, and structural processing, as well as the constraints of neurolinguistic models. Topics will include the neurophysiological aspects of first and second language acquisition/bilingualism, literacy, neurogenetics of language, the neuroethology of language, and clinical research in speech, reading, and writing disorders. In addition, students will gain a more general understanding of how to evaluate different theories of language and cognition. More specifically, students will gain practice in uncovering important questions about an area of interest, determining the appropriate methods to address these questions, and critically evaluating the conclusions drawn. Co-convenes with NEUR 585. Level: Undergraduate-graduate

**NEUR 490 - Undergraduate Research. 1-10 Credits.**

(R-10) Offered autumn. Restricted to students with at least sophomore standing in Neuroscience. Theory and practical experience in neuroscience experiment design, data collection, results analysis, and report creation. Students will generally assist with ongoing research as well as attend formal classroom presentations and discussions. Students will be required to work with the course writing instructor to undertake the writing process and develop a primary literature review, an abstract, and final report based on the experiments conducted and the data collected. Students with well-developed research ideas and skills may be allowed to undertake supplemental independent research. Level: Undergraduate

**NEUR 491 - Special Topics. 1-6 Credits.**

(R-6) Offered intermittently. Experimental offerings of visiting professors, experimental offerings of new courses, or one-time offerings of current topics. Level: Undergraduate

**NEUR 570 - Neuroscience Research Laboratory Rotations. 1-3 Credits.**

(R-6) Experience in research methods in Neuroscience research laboratories. CR/NCR grading only.

**NEUR 582 - Research Seminar Neuroscience. 1 Credit.**

(R-9) Offered autumn and spring. Oral and written presentations of experimental research results and selected literature topics in neuroscience. Level: Graduate

**NEUR 585 - Neurolinguistics. 3 Credits.**

Offered spring. This course will introduce students to Neurolinguistics, the study of language in the brain, reviewing theories of how language is processed in the mind and the organizational bases of language within the human nervous system. The course includes information on the history of neurolinguistics, modern techniques and methods of neurolinguistic research, and also provides detailed examples of several recent studies in the field. We will discuss how language maps onto the brain in "time" and "space" from the perspective of different theoretical models, examining linguistics components of sound, meaning, and structural processing, as well as the constraints of neurolinguistic models. Topics will include the neurophysiological aspects of first and second language acquisition/bilingualism, literacy, neurogenetics of language, the neuroethology of language, and clinical research in speech, reading, and writing disorders. In addition, students will gain a more general understanding of how to evaluate different theories of language and cognition. More specifically, students will gain practice in uncovering important questions about an area of interest, determining the appropriate methods to address these questions, and critically evaluating the conclusions drawn. Co-convenes with NEUR 485. Level: Undergraduate-Graduate

**NEUR 590 - Graduate Research. 1-10 Credits.**

(R-10) Independent research under the direction of a faculty member. Graded credit/no credit. Level: Graduate

**NEUR 591 - Special Topics. 1-6 Credits.**

(R-6) Offered intermittently. Experimental offerings of visiting professors, experimental offerings of new courses, or one-time offerings of current topics. Level: Graduate

**NEUR 594 - Seminar. 1 Credit.**

(R-9) Offered autumn and spring. Oral and written presentations of experimental research results and selected literature topics in neuroscience. Level: Graduate

**NEUR 610 - Neuropsychopharmacology. 3 Credits.**

Offered alternate years. Prereq., BMED 613 or NEUR 661. Focus on current areas of research and research technologies in neuropsychopharmacology. Development of presentations and research grant proposals. Level: Graduate

**NEUR 646 - Neurotoxicology. 3 Credits.**

Offered alternate years. Prereq., BMED 641 or NEUR 661. Mechanisms of major neurotoxins and neurological disease. Level: Graduate

**NEUR 661 - Neuroscience I. 4 Credits.**

Offered autumn. Overview of the structure and function of the nervous system. Level: Graduate

**NEUR 662 - Neuroscience II. 4 Credits.**

Offered spring. Prereq., NEUR 661. Fundamentals of developmental neuroscience, behavioral and cognitive neuroscience and computational neuroscience. Level: Graduate

**NEUR 667 - Topics in Neurobiology. 1-3 Credits.**

(R-9) Offered every year. Prereq., NEUR 661. Current topics in neuroscience. Level: Graduate

**NEUR 690 - Graduate Research. 1-10 Credits.**

(R-10) Independent research under the direction of a faculty member. Graded credit/no credit. Level: Graduate

## Nonprofit Administration (NPAD)

**NPAD 166Y - Introduction to Public Service. 3 Credits.**

Offered autumn. This course acquaints students with the structure, issues, and themes of public service and stimulates our thinking about how leaders respond (or fail to respond) to public needs.

Gen Ed Attributes: Democracy and Citizenship

**NPAD 191 - Special Topics. 1-6 Credits.**

(R-6) Offered autumn and spring. Experimental offerings of visiting professors, experimental offerings of new courses, or one-time offerings of current topics.

**NPAD 192 - Independent Study. 1-3 Credits.**

(R-6) Offered intermittently. Course material appropriate to the needs and objectives of the individual student.

**NPAD 367 - Leadership and Nonprofits. 3 Credits.**

This course focuses on public and nonprofit leadership through self-reflection and case-study application. Students will learn the difference between a leader and manager, and obtain skills to be successful in their future careers through an examination of human resource management best practices.

**NPAD 368 - Policy Process and Implementation. 3 Credits.**

This course will provide insight into the study of policymaking in the United States. We are typically taught policy is made in a rational or linear fashion, and if it is not, then it should be. Our course is intended for students who are interested in public policy, how it is created, implemented, and evaluated (e.g. the public policy cycle). We will evaluate a variety of substantive policy areas and enhance your public policy skills along the way.

**NPAD 392 - Independent Study. 1-6 Credits.**

(R-6) Offered intermittently. Course material appropriate to the needs and objectives of the individual student.

**NPAD 398 - Internship. 3-6 Credits.**

Offered autumn and spring. Extended classroom experience that provides practical application of classroom learning during placements off campus. Prior approval must be obtained from the faculty supervisor. A maximum of 6 credits of Internship (198, 298, 398, 498) may count toward graduation.

**NPAD 465 - Solving Public Policy Problems with Data. 3 Credits.**

Data visualization is an often-overlooked topic in research that falls by the wayside after data collection methods and analysis. However, data visualization plays an important role in telling our stories in public policy. Specifically, this course focuses on communicating the important findings in your research to the broader audience. This course fills that void by focusing solely on the process of visualizing data. Throughout this course, we focus on how to design visualizations that are appealing to your audience and how to develop these visualizations in Tableau. Tableau is a robust, increasingly popular, interactive data visualization software. Each week of this course we examine a new topic in data visualization, via textbook, lecture, and video followed by various hands-on tutorials and assignments in Tableau. Level: Undergraduate

**NPAD 466 - Practical Applications in Nonprofit Administration. 3 Credits.**

Offered autumn. Restricted to students with at least junior standing. Introduction nonprofit management and public service and the complexity of the role of nonprofit organizations in society. Level: Undergraduate-Graduate

**NPAD 467 - Advanced Nonprofit Administration. 3 Credits.**

Offered spring. Prereq., NPAD 466. Restricted to students with at least junior standing. In-depth exploration of special advanced issues related to nonprofit management, including fundraising, budgeting, and program planning. Level: Undergraduate-Graduate

**NPAD 491 - Special Topics. 1-6 Credits.**

(R-6) Experimental offerings of visiting professors, experimental offerings of new courses, or one-time offerings of current topics. Level: Undergraduate-Graduate

**NPAD 492 - Independent Study. 1-6 Credits.**

(R-6) Offered intermittently. Course material appropriate to the needs and objectives of the individual student. Level: Undergraduate-Graduate

**NPAD 498 - Internship. 1-6 Credits.**

(R-6) Extended classroom experience that provides practical application of classroom learning during placements off campus. Prior approval must be obtained from the faculty supervisor. A maximum of 6 credits of Internship (198, 298, 398, 498) may count toward graduation. Level: Undergraduate

**NPAD 501 - Nonprofit Human Resource Management. 2 Credits.**

On-line course offered every year. Addresses human resource needs specific to nonprofits, including payroll, employment law, and other legal issues. Level: Graduate

**NPAD 502 - Nonprofit Volunteer Mgmt. 2 Credits.**

On-line course offered every year. Addresses the process of recruiting and retaining volunteers at a nonprofit organization, including case studies and hands-on projects. Level: Graduate

**NPAD 503 - Nonprofit Prog Plan & Eval. 2 Credits.**

On-line course offered every year. Explores program planning for nonprofits from top-to-bottom, including needs assessment and evaluation. Level: Graduate

**NPAD 505 - Nonprofit Advocacy. 2 Credits.**

On-line course offered every year. Explores and reviews the role of nonprofit organizations in advocacy. Level: Graduate

**NPAD 506 - Nonprofit Board Management. 2 Credits.**

Online course offered every year. Explores policymaking and fundraising roles and responsibilities of the board; strategies for board recruitment, orientation, and evaluation; and executive director/board relationships. Level: Graduate

**NPAD 510 - Nonprofit Strategic Plan. 2 Credits.**

Online course offered every year. This course explores the importance of visionary leadership and strategic planning to the success of nonprofit agencies. Level: Graduate

**NPAD 511 - Nonprofit Grant Writing. 2 Credits.**

Online course offered every year. Students learn how to write the essential parts of a grant proposal and how to search for appropriate funding sources. Level: Graduate

**NPAD 512 - Nonprofit Fundraising. 2 Credits.**

Online course offered every year. The course covers all major aspects of a fundraising plan including: annual fund, major gifts, capital campaigns, planned giving, grants and special events. The course will also give students the foundation and tools needed to implement these plans into action. Level: Graduate

**NPAD 513 - Nonprofit Financial Mgmt. 2 Credits.**

Online course offered every year. This course explores special issues related to nonprofit financials including accounting basics, budgeting, financial statement ratios, management controls and nonprofit income tax reporting processes. Level: Graduate

**NPAD 560 - Nonprofit Marketing & Social Media. 2 Credits.**

Offered spring. This course provides students with an overview of basic marketing principles and social media strategies. Students will learn steps to create a Social Media Marketing Plan to further the mission of a nonprofit organization. Students will analyze and select appropriate communication channels and technologies according to relevant publics. Level: Graduate

**NPAD 592 - Independent Study. 1-6 Credits.**

(R-6) Offered intermittently. Course material appropriate to the needs and objectives of the individual student.

**NPAD 598 - Internship. 1-6 Credits.**

(R-6) Offered every term. Extended classroom experience that provides practical application of classroom learning during placements off campus. Prior approval must be obtained from the faculty supervisor.

## Nursing (NRSNG)

**NRSNG 191 - Special Topics. 1-6 Credits.**

(R-6) Offered at Missoula College. Experimental offerings of visiting professors, experimental offerings of new courses, or one-time offerings of current topics.

**NRSNG 192 - Independent Study. 1-6 Credits.**

(R-6) Offered intermittently. Offered at Missoula College. Course material appropriate to the needs and objectives of the individual student.

**NRSNG 230 - Nursing Pharmacology. 3 Credits.**

Offered autumn and spring. Offered at Missoula College. Restricted to students in the Registered Nursing program. This course provides the student with an overview of pharmacology with an emphasis of the study of effects, interactions, and nursing considerations of pharmacologic agents on the client population across the lifespan. The course also explores the ethical, legal, cultural and age implications of pharmacologic therapy across diverse populations and the lifespan.

**NRSNG 231 - Nursing Pharmacology Lab. 2 Credits.**

Offered autumn and spring. Offered at Missoula College. Restricted to students in the Registered Nursing program. An integration of lab experiences focusing on the basic principles in providing safe medication administration, including intravenous therapy across diverse populations and the lifespan.

**NRSNG 232 - Foundations of Nursing. 3 Credits.**

Offered autumn and spring. Offered at Missoula College. Restricted to students in the Registered Nursing program. This course provides opportunities to develop competencies necessary to meet the needs of individuals throughout the lifespan in a safe, legal, and ethical manner using the nursing process. Students learn concepts and skills necessary for maintaining standard precautions, physical, psychological and nutritional safety, along with skills needed in therapeutic interventions. Students are introduced to the concepts of professional nursing, patient needs, safety, communication, teaching/learning, critical thinking, ethical-legal, rural nursing, cultural and ethnic diversity, and interdisciplinary patient-centered care.

**NRSNG 233 - Foundations of Nursing Lab. 3 Credits.**

Offered autumn and spring. Offered at Missoula College. Restricted to students in the Registered Nursing program. An integration of lab experiences focusing on psychomotor nursing skills needed to assist individuals in meeting basic human needs. Application of the nursing process and hands-on learning experiences for nursing skills, patient assessments, nutritional safety, and basic therapeutic skills are practiced and demonstrated.

**NRSG 234 - Adult Nursing I. 3 Credits.**

Offered autumn and spring. Offered at Missoula College. Restricted to students in the Registered Nursing program. This course builds upon the knowledge and skills acquired in Foundations of Nursing, and places them in the context of patient-centered care. Social, cultural, ethical, rural and legal issues, end-of-life and palliative care across diverse adult populations are introduced. Health promotion and prevention throughout the adult lifespan, with specific focus on the geriatric patient, is emphasized. Normal aging, health alterations associated with aging, and their implications are addressed.

**NRSG 235 - Adult Nursing I Clinical. 2 Credits.**

Offered autumn and spring. Offered at Missoula College. Restricted to students in the Registered Nursing program. This clinical introduces the student to nursing practice in care of the stable adult patient. This includes care of the adult in a variety of health care settings. Students utilize the nursing process to develop individualized plans of care to prevent illness, promote wellness and maintain or restore health based on patient needs and evidence based practice.

**NRSG 236 - Health and Illness of Maternal Nursing. 2 Credits.**

Offered autumn and spring. Offered at Missoula College. Prereq., acceptance into the Registered Nursing Program and successful completion of semester 1 of the RN program. In this course, the student applies holistic concepts to the professional nursing care of the childbearing family including conception, prenatal, intrapartum, postpartum and newborn care. Content addresses health and complex alterations, reproduction and menopause, nutrition, therapeutic communication, ethical, legal, cultural and evidenced-based practice.

**NRSG 237 - Health and Illness of Maternal Nursing Clinical. 1 Credit.**

Offered autumn and spring. Offered at Missoula College. Restricted to students in the Registered Nursing program. This clinical introduces the student to the role of the registered nurse in the care of the childbearing family. Students will utilize the nursing process to assess and develop individualized plans of care for mother and infant. Emphasis will be placed on patient education to promote healthy mother infant and childbearing family bonding.

**NRSG 244 - Adult Nursing II. 3 Credits.**

Offered autumn and spring. Offered at Missoula College. Restricted to students in the Registered Nursing program. This course builds upon previous knowledge of the nursing process and care of the patient experiencing acute and chronic disease alterations. Pathophysiologic processes are discussed as related to evidence-based nursing interventions. Students apply the nursing process, nutritional therapy, and pharmacological therapy utilizing interdisciplinary practice to promote, maintain, and restore health across the adult lifespan.

**NRSG 245 - Adult Nursing II Clinical. 2 Credits.**

Offered autumn and spring. Offered at Missoula College. Restricted to students in the Registered Nursing program. In this clinical experience the student will provide care for individuals and families experiencing acute health alterations, and those associated with chronic disease processes. Students use the nursing process to systematically analyze information to plan and implement nursing interventions which are individualized and founded on evidence-based practice.

**NRSG 246 - Health and Illness of Child and Family Nursing. 2 Credits.**

Offered autumn and spring. Offered at Missoula College. Prereq., acceptance into the Registered Nursing Program and successful completion of semester I and II of the RN program. In this course, the student applies holistic concepts to the professional nursing care of children and their families in health, illness, end-of-life and palliative care. Emphasis is placed on incorporating growth and developmental principles to facilitate positive health outcomes through health promotion, nutrition and disease prevention.

**NRSG 247 - Health and Illness of Child and Family Nursing Clinical. 1 Credit.**

Offered autumn and spring. Offered at Missoula College. Restricted to students in the Registered Nursing program. In this clinical, students will utilize the nursing process, to provide nursing care of healthy and high-risk pediatric populations and their families experiencing disruptions in bio/psycho/social/cultural and spiritual needs. Emphasis is also placed on health promotion, health maintenance, and therapeutic communication.

**NRSG 254 - Mental Health Concepts. 2-3 Credits.**

Offered autumn and spring. Offered at Missoula College. Restricted to students in the Registered Nursing program. In this course, the student focuses on the nursing concepts utilizing basic human needs, developmental theory, nursing process, therapeutic communication, and nursing interventions to promote and maintain health for clients and families experiencing mental-health issues. The student will examine client responses to stressors across the life span. Tasks of biological-behavioral concepts in psychosocial nursing care, rural and cultural impacts will be addressed.

**NRSG 255 - Mental Health Concepts Clinical. 1 Credit.**

Offered autumn and spring. Offered at Missoula College. Restricted to students in the Registered Nursing program. This clinical applies the knowledge of psychiatric and mental health nursing. Students will have mental health focused clinical experiences in a variety of settings.

**NRSG 256 - Pathophysiology. 3 Credits.**

Offered spring and autumn. Offered at Missoula College. Restricted to students in the Registered Nursing program. This course introduces the student to the basic principles and processes of pathophysiology including cellular communication, genes and genetic disease, forms of cellular injury, nutrition, fluid and electrolyte/acid base balance, immunity, stress coping and illness, and tumor biology. Pathophysiology of the most common alterations according to body systems will be discussed as well as the latest developments in research and patient-centered nursing interventions.

**NRSG 259 - Adult Nursing III. 3 Credits.**

Offered autumn and spring. Offered at Missoula College. Restricted to students in the Registered Nursing program. This course expands on the nursing role in care of patients with complex health alterations. Students utilize evidence-based, interdisciplinary interventions to meet patient and family needs.

**NRSG 260 - Adult Nursing III Lab. 1 Credit.**

Offered autumn and spring. Offered at Missoula College. Restricted to students in the Registered Nursing program. In this lab students are introduced to basic electrocardiogram interpretation, advanced concepts of perfusion, ventilation and complex pharmacologic regimens.



**NRS 261 - Adult Nursing III Clinical. 2 Credits.**

Offered autumn and spring. Offered at Missoula College. Restricted to students in the Registered Nursing program. This clinical experience focuses on application of the nursing process and utilization of information to provide comprehensive nursing care to the acutely ill patient experiencing complex health alterations in a variety of settings. Emphasis is placed on prioritization of care and collaboration with other members of the interdisciplinary team to ensure optimal client care.

**NRS 266 - Managing Client Care for the Registered Nurse. 2 Credits.**

Offered autumn and spring. Offered at Missoula College. Restricted to students in the Registered Nursing program. In this course students examine concepts of leadership and management emphasizing prioritization, delegation, and supervision of nursing care for patients across the lifespan. Topics also include communication techniques, legal and ethical issues, care of the culturally diverse patient, and utilizing change theory. Healthcare policy, finance, and regulatory environment issues are explored and applied to planning, collaborating and coordinating care across the continuum.

**NRS 267 - Managing Client Care for the Registered Nurse Clinical. 2 Credits.**

Offered autumn and spring. Offered at Missoula College. Restricted to students in the Registered Nursing program. This precepted clinical experience focuses on principles of nursing leadership and management in a variety of settings. Students apply knowledge to provide culturally competent, holistic interventions within the professional nursing role for individuals, communities, and families across the lifespan.

**NRS 291 - Special Topics. 1-6 Credits.**

Offered at Missoula College. Experimental offerings of visiting professors, experimental offerings of new courses, or one-time offerings of current topics.

**NRS 292 - Independent Study. 1-6 Credits.**

(R-6) Offered at Missoula College. Course material appropriate to the needs and objectives of the individual student.

## Nutrition (NUTR)

**NUTR 221N - Basic Human Nutrition. 3 Credits.**

Offered every semester. Fundamental principles of human nutrition which include individual nutrients, absorption, digestion, metabolism, and utilization as they relate to food intake and health throughout the life cycle, and applying science to concepts and controversies in the field. Gen Ed Attributes: Natural Science

**NUTR 411 - Nutrition For Sports & Exercise. 3 Credits.**

Prereq., KIN 320. Restricted to students in Integrative Physiology with at least junior standing or graduate students in Athletic Training. Nutritional parameters of athletic performance including intervention planning, energy production, the energy nutrients, vitamins and minerals, principles of balanced diets, timing and composition of intakes, hydration, weight management strategies, and nutritional needs for special situations. Level: Undergraduate-Graduate

## Occupational Safety and Health (OSH)

**OSH 110 - OSHA 10 Hour Safety Training. 1 Credit.**

Offered every semester. Offered at Missoula College. Course will cover the required elements of the OSHA10 General Construction Safety training as well as an introduction of Industry specific Workplace Safety expectations. Course graded only on CR/NCR basis, requiring full 15 hour attendance and successful completion of all OSHA exams at 70% or better.

**OSH 130 - Introduction to Trades and Trade Safety/Job Site Ready. 3 Credits.**

This course is offered in a face to face format with both classroom and applied training or in select offerings in a hybrid online/face to face format. Students will receive an introduction to the trades as well as learn the necessary skills to be able to obtain employment and safely participate in trades related careers. Major topics include an introduction to OSHA, including job site safety hazard recognition, hand tool safety, power tool safety, hand signals, and working around heavy equipment. Students also receive an overview of the most common construction materials and their uses, basic framing and carpentry, concrete and concrete forming, blueprint reading, and construction math.

## Occupational Therapy (O T)

**O T 500 - The Foundations of Occupational Therapy. 3 Credits.**

Restricted to students in the entry-level Occupational Therapy program. This course will cover the historical, current, and emerging philosophical and theoretical foundations as they relate to occupational therapy practice and research. We will review key historical figures, events, and contexts that have shaped occupational therapy today while also analyzing current and emerging theoretical frameworks or models in the context of creating meaningful interventions to promote health, well-being, and participation.

**O T 510 - Applied Clinical Anatomy. 5 Credits.**

Restricted to students in the entry-level Occupational Therapy program. The emphasis in this course will be directed toward building anatomical knowledge of the muscular, skeletal, nervous, and circulatory systems and integrating this knowledge with relevant clinical physical therapy applications.

**O T 515 - Promoting Health & Wellness Through Meaningful Occupation. 3 Credits.**

Restricted to students in the entry-level Occupational Therapy program. Through lecture and seminar-style discussions, students will explore health and wellness promotion at both the community and individual level. Students will explore occupational science and the promotion of meaningful occupation as a means for improving and maintaining optimal health. The course will also explore the occupation of 'graduate student' and examine the importance of occupational balance and strategies for coping with stress.

**O T 520 - Occupation Across Life Stages and Diverse Populations . 3 Credits.**

Restricted to students in the entry-level Occupational Therapy program. Students will explore typical growth, development and aging principles, theories, and implications across the lifespan with a focus on the interplay and importance of occupational performance for wellbeing as influenced by various contexts and constructs. All topics will be explored through an individual, group, and population lens taking into account person-specific and contextual factors.



**O T 526 - Fundamental Clinical Skills. 2 Credits.**

Restricted to students in the entry-level Occupational Therapy program. This course will address foundational skills needed for OT practice. Students will explore the different types of documentation, learn why accurate documentation is important, and will document various client encounters. Students will learn the basics of body mechanics, safe bed mobility and transfers, and assistive device use.

**O T 530 - Reflective Professional Practice Seminar I and Fieldwork Ia. 2 Credits.**

Restricted to students in the entry-level Occupational Therapy program. This is the first reflective professional practice seminar in a four-seminar sequence designed to promote clinical reflection and reasoning by integrating knowledge from previous educational and lived experience with current coursework and Level I Fieldwork experiences. This first seminar will address the topics of professional behavior, ethical practice, the nature of occupation, effective communication, and therapeutic relationships. The course will also provide an introduction to OT domain and process including clinical reasoning and intervention planning. A combination of case studies, weekly readings, journal entries, peer discussion, fieldwork experience, and classroom activities will be used to explore seminar topics.

**O T 536 - Neurosciences. 5 Credits.**

Restricted to students in the entry-level Doctor of Occupational Therapy program. Neuroanatomy and neurophysiology of the human nervous system with an emphasis on evaluation of central nervous system lesions, pathological conditions, and clinical applications to neurology and rehabilitation medicine.

**O T 538 - Assessment, Activity Analysis & Outcomes in Occupational Therapy. 3 Credits.**

Restricted to students in the entry-level Doctor of Occupational Therapy program. This course provides students with foundational knowledge and skills in observation, activity analysis, standardized- and non-standardized assessments, and related functional outcomes in OT practice. Students will explore an assessment tool in depth including scoring and synthesizing/interpreting results to apply in practice.

**O T 542 - Health, Well-being, Participation, & Productive Aging in Adults. 4 Credits.**

Restricted to students in the entry-level Doctor of Occupational Therapy program. Through lecture and associated lab sessions, students will explore adult occupational engagement as well as common diseases, disorders, and functional impairments. The occupational therapy process with adult clients will be explored in depth, including a wide range of standardized and non-standardized assessments, evidence-based and occupation-centered intervention plans, and involvement of/reporting to relevant stakeholders.

**O T 545 - Development, Health, and Meaningful Participation from Birth Through Adolescence. 4 Credits.**

Restricted to students in the entry-level Doctor of Occupational Therapy program. Students will explore typical development and OT process with infants, children, and adolescents with various illnesses, disorders, and functional impairments across a wide-variety of settings. Students will apply knowledge to evidence-based practice and clinical reasoning including family-centered services.

**O T 550 - Reflective Professional Practice Seminar II and Fieldwork Ib. 2 Credits.**

Restricted to students in the entry-level Doctor of Occupational Therapy program. This is the second reflective professional practice seminar in a four-seminar sequence designed to promote clinical reflection and reasoning by integrating knowledge from previous educational and lived experience with current coursework and Level I Fieldwork experiences. This second seminar will apply theory and frames of reference to the OT process. Assessment/evaluation, activity analysis, intervention planning/execution, and documentation will be explored through the lens of inter-and intra- professional collaboration and in relation to fieldwork experiences to date. Active participation in class is essential for fulfillment of course objectives.

**O T 555 - Scholarly Engagement to Enhance Practice. 3 Credits.**

Restricted to students in the entry-level Doctor of Occupational Therapy program. Students will develop and apply knowledge regarding teaching and learning theories, scholarly writing, and evidence-based practice through critical appraisal of literature, creation of a scholarly article, and design of a health-literacy focused project to enhance clinical practice.

**O T 560 - Reflective Professional Practice Seminar III and Fieldwork Ic. 2 Credits.**

Restricted to students in the entry-level Doctor of Occupational Therapy program. This third seminar in the series will cultivate and grow teaching and learning knowledge as applied to effective information dissemination and health literacy, care coordination, community programming, continuing or modifying intervention plans, documentation, and discharge procedures. These concepts will be applied to current Level I Fieldwork placements with older adult populations.

**O T 567 - Neurorehabilitation for Functional Participation. 3 Credits.**

Restricted to students in the entry-level Doctor of Occupational Therapy program. Principles of neuroplasticity, motor control, motor learning, and evidence-based interventions for adults with neurological disorders or acquired neurological impairments will be studied and applied to OT practice including adaptive equipment, dysphagia, and functional mobility.

**O T 600 - Research Methods for Health Professionals. 3 Credits.**

Restricted to students in the entry-level Doctor of Occupational Therapy program. Students will further develop their knowledge of quantitative, qualitative, and mixed methods research and apply to critical reading of literature to make evidence-based decisions for practice. Additionally, students will initiate the design of a research project proposal and a grant application.

**O T 606 - Assistive Technology and Innovation to Promote Occupation. 3 Credits.**

Restricted to students in the entry-level Doctor of Occupational Therapy program. This course will provide experience with and instruction relative to the use of assistive technology to promote meaningful participation. Students will work with MonTech on campus to explore a wide range of assistive technology options for various client needs. Experiential learning is greatly emphasized in this course, and the experience will culminate in real-world application of knowledge.

**O T 608 - Advanced Clinical Skills. 2 Credits.**

Restricted to students in the entry-level Doctor of Occupational Therapy program. This course addresses advanced clinical skills needed for OT practice. Students will develop skills of orthoses/splint fitting and fabrication, use of therapeutic agents, driver rehabilitation, power mobility, and complex physical transfers involving lifts and lines.

**O T 612 - On-Campus or Community Screening Clinic. 1 Credit.**

Restricted to students in the entry-level Doctor of Occupational Therapy program. Students will participate in faculty-facilitated on-campus or community-based interprofessional screening, assessment, and/or intervention clinics with colleagues from the PT, SLP, Social Work, Nursing, Family Practice Residency and/or Pharmacy programs.

**O T 620 - Reflective Professional Practice Seminar IV and Fieldwork Id. 2 Credits.**

Restricted to students in the entry-level Doctor of Occupational Therapy program. This is the last reflective professional practice seminar in the four-seminar sequence designed to promote clinical reflection and reasoning by integrating knowledge from previous educational and lived experience with current coursework and Level I Fieldwork experiences. This fourth and final seminar course will apply theoretical and practical knowledge of occupation to the analysis and evaluation of DEIJAB factors as they impact or intersect with the domains of social determinants of health. The seminar will also focus on a review of professional expectations for clinical practice, credentialing and licensure, and professional engagement.

**O T 628 - Professionalism, Practice, and Leadership. 4 Credits.**

Restricted to students in the entry-level Doctor of Occupational Therapy program. Students will develop leadership skills and sustainable professional behaviors relative to practice, professional advocacy, legislative activism, quality management, academic instruction, and team dynamics.

**O T 630 - Scholarship of Teaching & Research. 3 Credits.**

Restricted to students in the entry-level Doctor of Occupational Therapy program. Students will build on knowledge of teaching and learning principles and apply them to an academic or patient education delivery project. Students will also further develop scholarly reading and writing skills in the context of a simple research study, grant applications, and the ethical research processes.

**O T 632 - Global Perspectives on Occupational Science. 3 Credits.**

Restricted to students in the entry-level Doctor of Occupational Therapy program. Students will form an understanding of global diversity relative to occupation, the profession of occupational therapy, and occupational justice in order to ground professional activities in cultural humility. A combination of readings, interactive lectures, collaborative group activities, peer discussion, self-reflection, papers, and projects will be used to explore culturally responsive OT practice, education, and research around the world.

**O T 640 - Clinical Synthesis. 2 Credits.**

Restricted to students in the entry-level Doctor of Occupational Therapy program. In preparation for Level II Fieldwork experiences, this course will promote enhanced clinical reasoning and competence through continued on-campus clinical experiences, increasingly complex case studies, simulation activities, and interactive reflection between students and instructors.

**O T 646 - Doctoral Capstone Design and Preparation. 2 Credits.**

Restricted to students in the entry-level Doctor of Occupational Therapy program. In collaboration with faculty advisors, students will design doctoral capstone project specific to clinical skills, research skills, administration, leadership, program development and evaluation, policy development, advocacy, education, and/or leadership. Capstone site, required agreements, and all necessary capstone elements must be identified and initiated.

**O T 648 - Doctoral Capstone Preparation and Planning. 2 Credits.**

Restricted to students in the entry-level Doctor of Occupational Therapy program. Students finalize the design, plan, and arrangements for the doctoral capstone experience and project in collaboration with identified faculty advisor, experience/project mentor, and doctoral capstone coordinator.

**O T 650 - Advanced Occupational Therapy Theory, Concepts, & Application. 3 Credits.**

This course explores innovative occupational therapy practice models as well as emerging trends in practice. Level: Graduate.

**O T 651 - Professional & Ethical Reasoning in Occupational Therapy. 3 Credits.**

This course focuses on analysis of models and case examples of professional and ethical reasoning in occupational therapy. Level: Graduate.

**O T 652 - OT Evidence Based Practice: Methods & Applications. 3 Credits.**

This course teaches the OT practitioner advanced skills to be a knowledgeable consumer and translator of evidence, including being able to integrate evidence, client's preferences, and context for best practice. Level: Graduate.

**O T 653 - Methods of Evaluation in Occupational Therapy Practice. 2 Credits.**

Through critical reflection and case studies, students will interpret scores and evaluation data to inform occupation-based, client-centered intervention planning. Level: Graduate.

**O T 654 - Professionalism: The Doctoring Profession in Occupational Therapy. 2 Credits.**

This course provides the clinical doctoral learner with the opportunity for examination and discussion of the responsibilities, challenges and opportunities inherent in doctoral level occupational therapy practice. Level: Graduate.

**O T 655 - Occupational Therapy in Prevention, Health, & Disability. 3 Credits.**

This course explores the roles, evidence, value, and potential of occupational therapy in three domains: 1) prevention, 2) promotion of health and well-being, and 3) improvement of function and participation for people with and without disabilities. Level: Graduate.

**O T 656 - Occupational Therapy Outcomes Measurement and Program Evaluation. 3 Credits.**

This course introduces students to the qualitative, quantitative, and mixed methods for measuring research outcomes of OT interventions and occupational science. Level: Graduate.

**O T 657 - Personal Leadership for the Health Professional: Essentials to Transform Practice. 3 Credits.**

Offered every semester. This course will explore the essentials of progressive leadership development critical to add value and ensure quality outcomes in clinical practice and education. Discussions will focus on personal leadership that starts from within, can be learned, isn't positional, and is critical for all health professionals if we expect to be part of the team that transforms health care. Level: Graduate.

**O T 658 - Capstone Preparation. 2 Credits.**

Offered every semester. This course enables students to plan their capstone project. The capstone project is an immersive learning experience that can focus on such topics as clinical practice, research, administration, leadership, program development or evaluation, advocacy, policy development, education, or theory development, among others. It will incorporate principles of evidence-based and occupation-based practice by having students address a specific healthcare problem or health outcome and implement practice changes that improve health care, health care delivery, or health-related outcomes. The project is a scholarly experience guided by an expert mentor that provides evidence of critical thinking, problem identification, proposal development, implementation, and evaluation. Capstones will involve collection, analysis, and synthesis of data or information that addresses a need, answers a question, or contributes to occupational therapy in a meaningful way. The capstone should also disseminate evidence-based information to an external audience. Once the capstone topic is approved, students will be supervised by a capstone advisor who will guide the student through the completion of the capstone project. Students will expound upon a topic, search the literature, and prepare a proposal. Projects requiring IRB approval should follow the procedures for application. The capstone mentor will guide the student through the completion of the capstone project. Level: Graduate

**O T 659 - The Teaching and Learning Continuum of Education for OTs. 2 Credits.**

Offered every semester. This course encompasses the planning, conducting, and assessment of outcomes for teaching knowledge and skills to a variety of learners (professionals and lay people). To be an effective teacher, we must develop an understanding of learning theories, assessment, instructional methods and activities, and course design which produces significant learning experiences. Course design illustrates teaching and learning practices grounded in andragogy and the enhancement of students' teaching skills. Students will: (1) examine teaching and learning theories, (2) explore adult learning principles (andragogy), (3) consider the influence of culture and context, and (4) learn to create significant learning experiences and design a course that promotes student engagement and improves learning. Level: Graduate

**O T 661 - Trends in Occupational Therapy Practice. 3 Credits.**

Offered every semester. This course will explore how occupational therapy practice is changing to demonstrate innovative and emerging practice models as well as examining occupational therapy practice internationally. Students will reflect on which aspects of practice across different settings (e.g., clinical, military, community-based, etc.) are still salient despite changes in sociocultural and health care contexts. Special emphasis will be placed on "occupation in context": understanding occupation in contexts and environments at the personal, physical, social, cultural, temporal, spatial, and virtual levels. Assignments will engender analysis of current and past occupational therapy practice to build a thorough understanding of the foundational tenets and trajectory of the profession. Level: Graduate

**O T 662 - Technology in Occupational Therapy. 2 Credits.**

Offered every semester. This course focuses on assessment and intervention strategies utilizing adaptive equipment and assistive technologies to support the functional performance of individuals with disabilities. Specific topics include practice models and assessment instruments, ergonomics, computer access (including adaptive switches and software), technologies that enable mobility, communication, and environmental control, sensory aids for people with visual and/or hearing impairments, and cognitive aids for those with cognitive-behavioral challenges. The course also considers laws and regulations that impact assistive technology provision, strategies for assuring optimal use and adoption of assistive technologies, and universal design principles. Level: Graduate

**O T 663 - Leading Change in Occupational Therapy. 2 Credits.**

Offered every semester. This course is designed to develop knowledge and skills to advocate, plan, implement, and evaluate positive changes in multiple contexts. Relevant frameworks/models, measures, and methodologies from implementation science and behavioral change will highlight strategies and tools to effect and evaluate change. Drawing from advocacy, leadership, and the fields of organizational theory and behavior, this course will discuss facilitators and barriers to becoming change agents, thus preparing therapists to enact meaningful positive changes for individuals, groups, and populations. Level: Graduate

**O T 664 - Occupational Science & Health. 2 Credits.**

Offered every semester. This course will discuss the philosophical tenets of occupational science and how research has informed occupational therapy practice. Occupational science illuminates the complexities and richness of human occupation and its relationship to the health and quality of life of individuals, groups, and populations. Variables influencing occupation, such as context and personal values and experiences, will be analyzed. Level: Graduate

**O T 665 - Career Pathways and Professional Growth for Occupational Therapists. 2 Credits.**

Offered every semester. This course explores different career pathways of occupational therapists, highlighting roles, routines, and essential tasks associated with these careers. Educational and training requirements, if applicable, will be identified so that students know the trajectories as they plan their careers. Board and specialty certifications for practice areas will be presented. Through reflection, multimedia engagement, and discussions, students will identify resources and activities to promote their professional growth. Level: Graduate

**O T 691 - Special Topics. 1-12 Credits.**

(R-24) Offered intermittently. Experimental offerings of visiting professors, experimental offerings of new courses, or one-time offerings of current topics.

**O T 695 - Level II Fieldwork. 1-8 Credits.**

Restricted to students in the entry-level Doctor of Occupational Therapy program. Level II Fieldwork placements are coordinated by the Academic Fieldwork Coordinator and involve full time clinical work in university or community sites. The goal of Level II Fieldwork is to develop competent, entry-level, generalist occupational therapists. Each Level II Fieldwork placement is 12 weeks long and should result in entry-level competency in the given site.

**O T 699 - Capstone. 4,10 Credits.**

Offered spring for students in the entry-level Doctor of Occupational Therapy (OTD) program; offered every semester for students in the post-professional OTD program. Individual sections are restricted to students in the entry-level and post-professional OTD programs as appropriate. Students taking this course as part of the entry-level program for 10 credits will develop advanced knowledge and skills relative to one or more areas of interest including clinical practice, research, administration, leadership, program & policy development, advocacy, and/or education through a 14-week mentored doctoral capstone experience culminating in the dissemination of a completed doctoral capstone project. For students in the post-professional program, this course is offered for 4 credits and will enable them to implement and document their capstone project, a comprehensive experience that is based on the eight pillars of the doctoral experience: clinical practice skills, research skills, administration, leadership, program and policy development, advocacy, and education. The capstone project is an immersive learning experience that can focus on such topics as clinical practice, research, administration, leadership, program development or evaluation, advocacy, policy development, or education among others. It will incorporate principles of evidence-based and occupation-based practice by having students address a specific healthcare problem or health outcome and implement practice changes that improve health care, health care delivery, or health-related outcomes. The project is a scholarly experience guided by an expert advisor that provides evidence of critical thinking, problem identification, proposal development, implementation, and evaluation. Capstone projects may take a number of forms, but the final product provides evidence of scholarship and mastery in the field of occupational therapy. The capstone should also disseminate evidence-based information to an external audience. The student will complete an individually-mentored, increasingly self-directed, scholarly project that reflects advanced knowledge with implementation of the project, appropriate analysis of data, and interpretation of findings. The approved capstone advisor from Capstone 1 will guide the student through the completion of the capstone. Completion of the project involves scholarly writing and oral presentation that synthesizes the project. Level: Graduate

## Parks, Tourism & Recreation Management (PTRM)

**PTRM 141Y - National Parks and American Culture. 3 Credits.**

Offered autumn. This course introduces undergraduates to contemporary issues in managing the places and programs that make up the U.S. national park system. Students will learn about the variety of resources, values, viewpoints, and ideas that are represented in the more than 400 units of the national park system, which stretches from Guam to Maine and Alaska to the Virgin Islands. The role of the federal agency in charge of the parks, the National Park Service (NPS), will be explored, including its work in community recreation and historic preservation. Particular attention will be given to the social, cultural and historical context of how the National Park Service was developed and evolved. There are no pre-requisites.

Gen Ed Attributes: Democracy and Citizenship

**PTRM 150 - First Year Seminar in Parks, Tourism, and Recreation Management. 1 Credit.**

Offered autumn. This course will explore issues related to recreation and tourism in western Montana. This is a field based course designed to get students outside the classroom. Students will have a chance to visit outdoor recreation areas and meet recreation and tourism managers.

**PTRM 191 - Special Topics. 1-6 Credits.**

(R-6) Offered intermittently. Experimental offerings of visiting professors, experimental offerings of new courses, or one-time offerings of current topics.

**PTRM 210S - Nature Tourism & Commercial Recreation. 3 Credits.**

Offered spring. Introduction to the tourism and commercial recreation industries. Provides initial link between the natural environment and business operations. Combination of introductory business philosophies, economics, and natural resource management into a framework for future reference and course work.

Gen Ed Attributes: Social Sciences

**PTRM 217S - Parks & Outdoor Recreation Management. 3 Credits.**

Offered autumn and spring. The management of land as an environment for outdoor recreation. Understanding the relationship between the visitor, resource base and management policies. Recreation planning on multiple use forest lands, parks, wilderness areas and private lands.

Gen Ed Attributes: Social Sciences

**PTRM 291 - Special Topics. 1-6 Credits.**

(R-6) Offered intermittently. Experimental offerings of visiting professors, experimental offerings of new courses, or one-time offerings of current topics.

**PTRM 300 - Recreation Behavior. 3 Credits.**

Offered spring. Prereq., PTRM 217S. This course provides an understanding of recreation behavior in wildland and nature-based tourism oriented settings. Students will learn about theories/conceptual frameworks from social and environmental psychology and their application to visitor management issues in the wildland recreation and nature-based tourism fields.

**PTRM 310 - Natural Resource Interpretation and Communication. 3 Credits.**

Offered autumn. Prereq., COMX 111A or THTR 120A. Restricted to students in Parks, Tourism, and Recreation Management with at least junior standing. Principles, concepts, techniques essential to providing high quality interpretive programs in natural or cultural history.

**PTRM 345X - Sustaining Human Society & Natural Environment. 3-6 Credits.**

Offered summer. These field-based, experiential classes focus on the environmental and conservation concerns, as well as the modern and traditional cultures, of Australia, New Zealand, or Fiji.

Gen Ed Attributes: Cultural & International Diversity

**PTRM 353 - Tourism, Livelihoods and Sustainability in Mountains. 3 Credits.**

Offered summer only. Coreq. NRSM 352. In this course we will explore the opportunities and challenges of development with particular reference to nature-based tourism and sustainability in an isolated but rapidly globalizing region of the Himalaya. Students will learn through extensive readings, class discussions, direct field experience (including living in a remote mountain village), meetings with development officials, sustainability activists and stakeholders in the region.

**PTRM 355 - Wilderness Medicine And Risk Management. 5 Credits.**

This course will train students in injury and illness prevention in a backcountry setting while emphasizing risk management principles. The course also trains students in the treatment and long-term management of medical emergencies in the backcountry, including improvised litters and splints. Instructors cover decision making involved in dislocation reduction, medication administration, and evacuation protocols. Risk management topics include participant screening, emergency response plans, risk matrices, and incident reporting.



**PTRM 356 - Wilderness Rescue and Survival. 5 Credits.**

This course is ideal for outdoor leaders involved in extended backcountry trips and those individuals seeking employment with search and rescue units, ski patrols and wilderness trip leading organizations. Students will be prepared to handle emergencies in high-elevation, winter conditions as well as in tropical and swiftwater environments. They will also be prepared for extended care of patients and rescuers in remote and challenging environments. Students will study navigation including landform interpretation of maps and use of map rulers to determine lat/long and UTM coordinates, as well as practical use of maps, compass and GPS. The course includes 3 days of Swiftwater Rescue training, as well as 3 days of Level I Avalanche training. An overnight, winter rescue scenario typically in conjunction with Missoula County Sheriffs Search and Rescue team, as well as training in rescue helicopter operations with St. Patrick Hospitals LifeFlight medics, complete the suite of practical experiences.

**PTRM 380 - Recreation Administration & Leadership. 3 Credits.**

Offered spring. The theories, principles and practices that shape the administration of recreation opportunities offered through public, nonprofit and private agencies and organizations. Course content includes leadership roles of recreation managers, organizational structure, management, legality, risk management, staffing, communication and public relations.

**PTRM 391 - Special Topics. 1-12 Credits.**

(R-12) Offered intermittently. Experimental offerings of visiting professors, new courses, or one-time offerings of current topics.

**PTRM 392 - Independent Study. 1-6 Credits.**

(R-6) Offered every term. Course material appropriate to the needs and objectives of the individual student.

**PTRM 394 - Seminar. 1-4 Credits.**

(R-4) Offered intermittently. A review and discussion of current research. Topics vary.

**PTRM 398 - Internship. 1-6 Credits.**

(R-6) Offered every term. Extended classroom experience that provides practical application of classroom learning during placements off campus. Prior approval must be obtained from the faculty supervisor. A maximum of 6 credits of Internship (198, 298, 398, 498) may count toward graduation.

**PTRM 401 - Applied Risk Management for Outdoor Programs. 3 Credits.**

In this course, students are trained to balance risk with fundamental outdoor program objectives. They learn to craft defensible risk acknowledgments and emergency response plans while practicing how to educate and involve participants in risk management. Students will gain extensive practice in documentation, reporting, and emergency communications through case studies and practical scenarios as well as learn best practices for teaching participants practical skills in wildlife conflict avoidance, maintaining group wellness and avoiding communicable disease, and medical screening for proactive mental health management. Student assessments include planning and executing an outdoor trip for volunteers as well as participating in an incident response drill with Missoula County's SAR team and Aerie Backcountry Medicine. Several day-long field trips and one overnight field experience required. Level: Undergraduate and graduate.

**PTRM 407 - Managing Recreation Resources in Wilderness. 3 Credits.**

Examination of strategies to management recreation in a wilderness setting. Addresses management of visitor use and experiences, measuring and monitoring biophysical and social impacts, effective education and interpretation, and law enforcement. Level: Undergraduate

**PTRM 418 - Winter Wilderness Field Studies. 3 Credits.**

Examination of wilderness values, management issues and strategies, winter ecology and snow science, risk management and group leadership, and traditional skills. Winter field course in the Swan Valley and Mission Mountains Wilderness. Level: Undergraduate-Graduate

**PTRM 451 - Tourism & Sustainability. 3 Credits.**

Offered autumn. Prereq., PTRM 210S. Theories and conceptual models are applied to analyzing relationships between the integration of planning theories to sustainability concepts. Level: Undergraduate  
Gen Ed Attributes: Writing in the Disciplines

**PTRM 482 - Wilderness & Protected Area Management. 3 Credits.**

Offered autumn. Prereq., PTRM 217S. Examination of the origin, evolution, and application of the park concept on state, federal, and international levels. Evaluation of legislation, philosophy, and policy leading to consideration of goals, objectives, and strategies for wilderness and protected area management. Level: Undergraduate-Graduate  
Gen Ed Attributes: Writing in the Disciplines

**PTRM 484 - Capstone in Parks, Tourism, and Recreation Management. 4 Credits.**

Offered autumn. Field measurement and management techniques critical in park, tourism & recreation management. Includes measurement of impacts on biophysical and social attributes of park, tourism & recreation settings. Level: Undergraduate

**PTRM 485 - Recreation Planning. 3 Credits.**

Offered spring. Prereq., PTRM 217S and PTRM 300. Needs of recreation opportunities and response to those needs through planning, demand assessment and resource analysis. Level: Undergraduate-Graduate

**PTRM 491 - Special Topics. 1-12 Credits.**

(R-12) Offered intermittently. Experimental offerings of visiting professors, new courses or one-time offerings of current topics. Level: Undergraduate-Graduate

**PTRM 492 - Independent Study. 1-6 Credits.**

(R-6) Offered every term. Course material appropriate to the needs and objectives of the individual student. Level: Undergraduate

**PTRM 494 - Seminar. 1-4 Credits.**

(R-4) A review and discussion of current research. Topics vary. Level: Undergraduate

**PTRM 495 - Practicum. 1-6 Credits.**

(R-15) Supervised, practical experience in a professional setting relevant to the student's field of study. Level: Undergraduate-Graduate

**PTRM 498 - Internship. 1-6 Credits.**

(R-6) Extended classroom experience that provides practical application of classroom learning during placements off campus. Prior approval must be obtained from the faculty supervisor. A maximum of 6 credits of Internship (198, 298, 398, 498) may count toward graduation. Level: Undergraduate-Graduate

**PTRM 499 - Senior Thesis. 1-3 Credits.**

(R-6) Offered autumn and spring. Restricted to students with senior standing. Preparation of major paper based on study or research of a topic selected with an advisor according to needs and objectives of student. Level: Undergraduate-Graduate

**PTRM 500 - Conservation and Social Science Methods. 3 Credits.**

Offered autumn. Students should have completed an undergraduate course in statistics. The nature of scientific research, planning research projects, organization and presentation of research results. Level: Graduate



**PTRM 511 - Risk Management and Leadership in PTRM Contexts. 3 Credits.**

Offered autumn. This course is to provide students with an understanding of the interface between risk management and leadership concepts in the field of parks, tourism, and recreation. Working in outdoor settings presents a variety of challenges that can have diverse types and scales of risks. This class will orient students to the best practices in managing risks across PTRM settings and help students craft their own risk management plans. Effective leadership is critical in managing risk and to achieving desired outcomes. This class will focus on leadership models and provide students with opportunities to demonstrate effective leadership through critical thinking and application.

**PTRM 512 - Human Behavior in Outdoor Recreation and Tourism. 3 Credits.**

Offered autumn. This course is to provide students with an understanding of the social, psychological, and behavioral constructs in the field of parks, tourism, and recreation management. The course will encompass historical, theoretical, and empirical foundations of relative to human behavior in park, recreation, and tourism settings with a focus on the attitudinal, social, and motivational theories as applied to leisure-related contexts.

**PTRM 525 - Evolving Foundations of Protected Area Management. 3 Credits.**

This course is about why the concept of nature protection has grown to a global phenomenon and how the idea of protection or preservation has evolved over time. Level: Graduate

**PTRM 526 - Protected Area Planning in an Era of Turbulence & Complexity: Concepts & Principles. 3 Credits.**

In this course we will explore the varying dimensions of protected area planning in the world of 21st century change and complexity, providing participants with perspectives useful in assessing new ways of developing the processes underlying effective plans. Level: Graduate

**PTRM 527 - Global Ecology, Conservation & Natural Resource Management in a Changing World. 3 Credits.**

This course will first examine biological and physical environmental processes, then exploring these processes within the context of resource management and conservation, and finally focusing on the application of these learned skills to case studies, students will understand how to apply ecological theory to real world challenges in protected areas management and global conservation initiatives. Level: Graduate

**PTRM 528 - Tourism & Protected Area Management: Striving for Sustainability. 3 Credits.**

This course will explore ideas of development and sustainability as they pertain to tourism in the context of protected areas. We will critically assess, through case studies and other readings, the opportunities and challenges for implementing sustainable tourism in protected area context from an economic, social and environmental perspective. Level: Graduate

**PTRM 529 - Program Management and Application Planning. 3 Credits.**

This course is intended to be a capstone course for the Protected Area Distance Education Program. As such, the course will be the last in the sequence and will draw from the principles and concepts introduced in the previous courses. These principles and concepts will be applied in a real-world context in order to address a challenge or opportunity in a given protected area. Level: Graduate

**PTRM 554 - Geographies of Tourism. 3 Credits.**

This course will focus on geographic concepts such as place, space, and scale and their applications in tourism research. We will also cover spatial analysis techniques and their uses in tourism studies. The course will begin with an introduction to geography and its importance in tourism studies. Next, background on concepts and theories developed within the field of geography will be provided. From there we will begin to discuss ideas of space, place, landscapes and scale. In our discussion of scale we will focus on the politics of scale and ideas of globalization and the global-local nexus. This will lead into a discussion of networks and flows as they apply to tourism. We will also explore political geographies and gendered landscapes as they apply to tourism. Finally, we will explore some spatial analysis techniques used by geographers studying tourism. The course materials will be structured to give students information on how each topic is conceptualized by geographers, current theoretical debates relating to the topic and its applications in tourism research. The course will rely heavily on current literature, mainly from peer-reviewed journals and book chapters. Students will be expected to engage with these concepts through the literature in writing and discussion. Level: Graduate

**PTRM 555 - Conservation and Development in Mountains. 2 Credits.**

Offered in odd numbered years. This course explores concepts and issues related to conservation and development in mountain regions. The course covers mountain geography, concepts of conservation and development and then explores conservation and development issues in mountain regions around the world.

**PTRM 562 - Managing Recreation Resources in Wilderness. 3 Credits.**

Current research, theory, and management approaches to recreation management in wilderness, including monitoring and management of visitor impacts and experiences. Level: Graduate

**PTRM 574 - Perspectives in Human Dimensions. 3 Credits.**

This course will provide graduate students with an understanding of multiple perspectives in human dimensions of natural resources. The course is intended to be broad in nature in order to provide students with a comprehensive understanding of the topics. Students will read and discuss foundational pieces by Orr and Leopold (among others) and explore newer readings on current research. The course will cover social psychological and sociological perspectives and discuss key issues such as scale, multidisciplinary research, sustainability and social diversity in natural resources. Students will be challenged to approach natural resources issues from multiple perspectives, not just the perspective they are most familiar with. Students will be able to communicate effectively among social scientists and be able to integrate diverse perspectives. Level: Graduate

**PTRM 582 - Concept of Wilderness & Protected Areas. 3 Credits.**

Offered autumn. Theoretical and philosophical imperatives for the establishment of different forms of parks, wilderness and protected areas. In-depth discussion of the objectives and purposes for management of these areas, and of the current criticisms and attacks on their intellectual foundation. Level: Graduate

**PTRM 584 - Sustainable Protected Area Management and Tourism. 3 Credits.**

This course will explore the intersection of social, cultural, environmental, and economic aspects of protected area management in relation to sustainability of resources, tourism, visitor management, conservation, and community development. Case study examples from diverse contexts, settings, and types of terrestrial and aquatic protected areas within the U.S. and around the world will illustrate the complexity of protected area management in a time of rapid change.

**PTRM 590 - Research. 1-12 Credits.**

(R-12) Offered every term. Independent graduate research in parks, tourism, and recreation management. Level: Graduate

**PTRM 591 - Special Topics. 1-12 Credits.**

(R-12) Offered intermittently. Experimental offerings of visiting professors, new courses, or one-time offerings of current topics. Level: Graduate

**PTRM 592 - Independent Study. 1-10 Credits.**

(R-10) Offered every term. Course material appropriate to the needs and objectives of the individual student. Level: Graduate

**PTRM 594 - Seminar. 1-2 Credits.**

(R-3) A review and discussion of current research. Topics vary. Level: Graduate

**PTRM 598 - Internship. 1-12 Credits.**

(R-12) Extended classroom experience that provides practical application of classroom learning during placements off campus. Prior approval must be obtained from the faculty supervisor. Level: Graduate

**PTRM 599 - Professional Paper. 1-15 Credits.**

(R-15) Offered every term. Preparation of professional paper. Level: Graduate

**PTRM 690 - Research. 1-15 Credits.**

(R-15) Offered every term. Directed individual research and study appropriate to the background and objectives of the student. Level: Graduate

**PTRM 691 - Special Topics. 1-6 Credits.**

(R-24) Experimental offerings of visiting professors, experimental offerings of new courses, or one-time offerings of current topics. Level: Graduate

**PTRM 699 - Thesis. 1-15 Credits.**

(R-15) Offered every term. Preparation of thesis/dissertation. Level: Graduate

## Pharmacy (PHAR)

**PHAR 110N - Use & Abuse of Drugs. 3 Credits.**

Offered autumn and spring. Drug dependence and abuse. Gen Ed Attributes: Natural Science

**PHAR 191 - Special Topics. 1-6 Credits.**

(R-16) Offered intermittently. Experimental offerings of visiting professors, experimental offerings of new courses, or one time offerings of current topics.

**PHAR 192 - Independent Study. 1-6 Credits.**

(R-6) Offered at Missoula College. Offered intermittently. Course material appropriate to the needs and objectives of the individual student.

**PHAR 198 - Internship. 1-6 Credits.**

(R-6) Extended classroom experience that provides practical application of classroom learning during placements off campus. Prior approval must be obtained from the faculty supervisor. A maximum of 6 credits of Internship (198, 298, 398, 498) may count toward graduation.

**PHAR 300 - Pharmacy Practice I. 4 Credits.**

Offered autumn. Restricted to students in the Professional Pharmacy program. An introduction to the prescription and pharmaceutical calculations and to the role of the pharmacist in systems involved in health care delivery.

**PHAR 310 - Pharmacy Practice II. 2 Credits.**

Offered spring. Federal and state laws and regulations pertaining to pharmacy practice. Introductory dispensing laboratory.

**PHAR 311 - Healthy People. 1 Credit.**

Offered spring. Restricted to students in the Professional Pharmacy program. Determinants of health, teamwork, communication, reflection, and self- and peer-assessment methods are explored in the classroom, through writings, and team projects in the community.

**PHAR 324 - Medicinal Plants. 2-3 Credits.**

Offered autumn. Plants and other natural substances which nourish, heal, injure, or alter the conscious mind.

**PHAR 329 - Microbes & Medicines. 4 Credits.**

Offered spring. Restricted to students in the Professional Pharmacy program. Microorganisms that cause disease in humans plus the chemical characteristics, biochemical mechanisms, and pharmacological properties of drugs used in treating infections caused by microorganisms.

**PHAR 331 - Pharmaceuticals. 4 Credits.**

Offered spring. Restricted to students in the Professional Pharmacy program. Physical pharmacy and dosage forms.

**PHAR 341 - Pharmaceutical Pathophysiology I. 4 Credits.**

Offered autumn. Restricted to students in the Professional Pharmacy program. Principles of anatomy, normal and abnormal physiology.

**PHAR 342 - Pharmaceutical Pathophysiology II. 4 Credits.**

Offered spring. Prereq., PHAR 341. Continuation of PHAR 341.

**PHAR 350 - Introduction to Drug Information. 1 Credit.**

Offered autumn. Restricted to students in the Professional Pharmacy program. Introduction to sources of drug information and the use of medical literature and clinical guidelines to respond to drug information requests from patients and healthcare providers. Gen Ed Attributes: Writing in the Disciplines

**PHAR 360 - Pharmacy Practice Lab I. 1 Credit.**

Offered autumn. Coreq., PHAR 300. Restricted to students in the Professional Pharmacy program. This lab is designed to introduce the student to the technical and legal aspects of drug dispensing, prescription and OTC drug counseling, and sterile intravenous (IV) admixture in a simulated pharmacy environment.

**PHAR 361 - Pharmaceutical Science Lab I. 1 Credit.**

Offered autumn. Restricted to students in the Professional Pharmacy program. Coreq., PHAR 300 and PHAR 341. Laboratory experience in the pharmaceutical sciences.

**PHAR 362 - Pharmaceutical Science Lab II. 1 Credit.**

Offered spring. Prereq., PHAR 361. Coreq., PHAR 331 and PHAR 342. Continuation of PHAR 361.

**PHAR 371 - Integrated Studies I. 1 Credit.**

Offered autumn. Restricted to students in the Professional Pharmacy program. Small group conferences designed to develop professional skills while integrating material from other pharmacy courses.

**PHAR 372 - Integrated Studies II. 1 Credit.**

Offered spring. Prereq., PHAR 371. Continuation of PHAR 371.

**PHAR 381 - Pharmaceutical Biochemistry. 4 Credits.**

Offered autumn. Restricted to students in the Professional Pharmacy program. Fundamental biochemistry from a pharmaceutical sciences perspective; management of genetic information, molecular structure and function, and metabolic reactions, especially as relating to drug actions and targets.

**PHAR 390 - Undergraduate Research. 1-3 Credits.**

(R-6) Offered autumn and spring. Independent research under the direction of a faculty member.

**PHAR 391 - Special Topics. 1-9 Credits.**

(R-9) Offered intermittently. Experimental offerings of visiting professors, experimental offerings of new courses, or one-time offerings of current topics.

**PHAR 392 - Independent Study. 1-3 Credits.**

(R-3) Course material appropriate to the needs and objectives of the individual student.

**PHAR 395 - Pharmacy Practicum. 1-2 Credits.**

(R-3) Offered autumn and spring. Prereq., PHAR 300. Supervised professional experience in the Student Health Service Pharmacy.

**PHAR 412 - Pharmacy Practice III. 2 Credits.**

Offered spring. Restricted to students in the Professional Pharmacy program. The social, behavioral, cultural, and literacy factors involved in professional communication and patient care. Level: Undergraduate

**PHAR 421 - Medicinal Chemistry I. 3 Credits.**

Offered autumn. Restricted to students in the Professional Pharmacy program. The chemistry of organic compounds used medicinally and their biochemical mechanisms of action. Level: Undergraduate-Graduate

**PHAR 422 - Medicinal Chemistry II. 3 Credits.**

Offered spring. Prereq., PHAR 421. Continuation of PHAR 421. Level: Undergraduate-Graduate

**PHAR 430 - Pharmacogenetics. 2 Credits.**

Offered each semester. Prereq., PHAR 341 and PHAR 381. The genetic basis of differential drug activity. Level: Undergraduate

**PHAR 432 - Clinical Pharmacokinetics. 3 Credits.**

Offered autumn. Restricted to students in the Professional Pharmacy program. Principles of pharmacokinetics including the processes of ADME (absorption, distribution, metabolism, and elimination) and applications in the clinical setting. Level: Undergraduate

**PHAR 443 - Pharmacology & Toxicology I. 4 Credits.**

Offered autumn. Restricted to students in the Professional Pharmacy program. Basic principles of pharmacology, toxicology and therapeutics. Level: Undergraduate-Graduate

**PHAR 444 - Pharmacology & Toxicology II. 4 Credits.**

Offered spring. Prereq., PHAR 443. Continuation of PHAR 443. Level: Undergraduate-Graduate

**PHAR 451 - Therapeutics I. 3 Credits.**

Offered autumn. Prereq., PHAR 329, PHAR 331, PHAR 342, and PHAR 381. Coreq., PHAR 471. Restricted to students in the Professional Pharmacy program. Pharmacotherapeutics of common disease states emphasizing pathophysiology and the selection, monitoring, and individualization of drug therapy. Applies the basic pharmaceutical sciences to patient care. Level: Undergraduate-Graduate

**PHAR 452 - Therapeutics II. 3 Credits.**

Offered spring. Prereq., PHAR 451. Prereq. or coreq., PHAR 422, PHAR 432 and PHAR 444. Coreq., PHAR 472. Pharmacotherapeutics of common disease states emphasizing pathophysiology and the selection, monitoring, and individualization of drug therapy. Applies the basic pharmaceutical sciences to patient care. Level: Undergraduate-Graduate

**PHAR 460 - Pharmaceutical Care Lab II. 1 Credit.**

Offered autumn. Prereq., PHAR 310. Restricted to students in the Professional Pharmacy program. Introduction to parenteral practice application, applied patient interview assessment, and communication skills for practice. Level: Undergraduate-Graduate

**PHAR 463 - Pharmaceutical Care Lab III. 1 Credit.**

Offered spring. Prereq., PHAR 460. Coreq. PHAR 412. Practice counseling and patient-care skills with emphasis on non-prescription drugs and devices. Includes individual in-service presentations. Level: Undergraduate-Graduate

**PHAR 471 - Integrated Studies III. 1 Credit.**

Offered autumn. Coreq., PHAR 451. Restricted to students in the Professional Pharmacy program. Small group conferences designed to develop professional skills while integrating material from first and second year professional pharmacy courses. Level: Undergraduate

**PHAR 472 - Integrated Studies IV. 1 Credit.**

Offered spring. Prereq., PHAR 471. Coreq., PHAR 452. Continuation of PHAR 471. Offered for CR/NCR only. Level: Undergraduate

**PHAR 480 - Community Pharmacy IPPE. 3 Credits.**

(R-6) Offered every term. Supervised professional experience in community pharmacy. Level: Undergraduate

**PHAR 481 - Hospital Pharmacy IPPE. 3 Credits.**

(R-6) Offered every term. Supervised professional experience in a hospital pharmacy. Level: Undergraduate

**PHAR 484 - Introduction to Toxicology. 3 Credits.**

Offered autumn. Introduction to environmental health and the principles of toxicology, including human toxic substance exposure, processing of toxic substances and the impact on cells and tissues including genetic and epigenetic factors. Graduate increment includes design of a research study in toxicology and leading class. Level: Undergraduate-Graduate

**PHAR 490 - Undergraduate Research. 1-3 Credits.**

(R-6) Offered autumn and spring. Individual participation in library or laboratory research. Level: Undergraduate

**PHAR 491 - Special Topics. 1-9 Credits.**

(R-9) Offered intermittently. Experimental offerings of visiting professors, experimental offerings of new courses, or one-time offerings of current topics. Level: Undergraduate-Graduate

**PHAR 492 - Independent Study. 1-9 Credits.**

(R-9) Course material appropriate to the needs and objectives of the individual student. Level: Undergraduate

**PHAR 494 - Seminar. 1-6 Credits.**

(R-6) Offered intermittently. A review and discussion of current research. Topics vary. Level: Undergraduate-Graduate

**PHAR 498 - Internship. 1-6 Credits.**

(R-12) Extended classroom experience that provides practical application of classroom learning during placements off campus. Prior approval must be obtained from the faculty supervisor. A maximum of 6 credits of Internship (198, 298, 398, 498) may count toward a baccalaureate degree. Level: Undergraduate-Graduate

**PHAR 505 - Pharmacy Practice IV. 3 Credits.**

Offered autumn. Co-req., PHAR 553, PHAR 560. Restricted to students in the Professional Pharmacy program. Applications of advanced drug therapy monitoring and disease state management. Level: Undergraduate/Graduate

**PHAR 506 - Pharmacy Practice V. 3 Credits.**

Offered spring. Prereq., PHAR 505. Aspects of pharmacy management, including human resources, quality improvement, financial, and administrative policies and procedures involved in providing patient care. Level: Undergraduate/Graduate

**PHAR 514E - Case Studies in Pharmaceutical Ethics. 3 Credits.**

Offered spring. Restricted to students in the Professional Pharmacy program. A practical discussion of pharmacy ethics, as it relates to pharmacy practice. Level: Undergraduate/Graduate  
Gen Ed Attributes: Ethical & Human Values

**PHAR 550 - Drug Literature Evaluation. 2 Credits.**

Offered autumn. Restricted to students in the Professional Pharmacy program. Scientific and statistical evaluation of the drug and medical research literature to formulate solutions for patient-specific pharmacotherapy problems. Level: Undergraduate/Graduate  
Gen Ed Attributes: Writing in the Disciplines

**PHAR 553 - Therapeutics III. 4 Credits.**

Offered autumn. Prereq., PHAR 452 and PHAR 472. Coreq., PHAR 505, PHAR 560, and PHAR 571. Restricted to students in the Professional Pharmacy program. Pharmacotherapeutics of common disease states emphasizing pathophysiology and the selection, monitoring, and individualization of drug therapy. Applies the basic pharmaceutical sciences to patient care. Level: Undergraduate/Graduate

**PHAR 554 - Therapeutics IV. 4 Credits.**

Offered spring. Prereq., PHAR 553. Coreq., PHAR 572. Pharmacotherapeutics of common disease states emphasizing pathophysiology and the selection, monitoring, and individualization of drug therapy. Applies the basic pharmaceutical sciences to patient care. Level: Undergraduate/Graduate

**PHAR 559 - Public Health and Pharmacoeconomics. 3 Credits.**

Offered autumn. Restricted to students in the Professional Pharmacy program. Covers concepts in public health, epidemiology, pharmacoeconomics, and outcomes research that shape health policy and professional practice. Level: Undergraduate/Graduate

**PHAR 560 - Pharmaceutical Care Lab IV. 1 Credit.**

Offered autumn. Coreq., PHAR 505 and PHAR 553. Practice in professional communication and pharmaceutical care interventions and recommendations. Level: Undergraduate/Graduate

**PHAR 563 - Pharmaceutical Care Lab V. 1 Credit.**

Offered spring. Coreq., PHAR 554. Practice in professional communication and pharmaceutical care interventions and recommendations. Level: Undergraduate/Graduate

**PHAR 565 - Pharmacy APPE Preparation. 3 Credits.**

Offered spring. Prereq., PHAR 553. Coreq., PHAR 554 and PHAR 563. Restricted to students in the Professional Pharmacy program. Review and updates on pharmacotherapeutic topics with preparation for and orientation to the final experiential year of the professional pharmacy program. Level: Undergraduate/Graduate

**PHAR 571 - Integrated Studies V. 1 Credit.**

Offered autumn. Coreq., PHAR 553. Restricted to students in the Professional Pharmacy program. Small group conferences designed to develop the professional skills needed to practice pharmaceutical care while integrating material from the professional pharmacy curriculum. Level: Undergraduate/Graduate

**PHAR 572 - Integrated Studies VI. 1 Credit.**

Offered spring. Coreq., PHAR 554. Restricted to students in the Professional Pharmacy program. Small group conferences designed to develop professional skills while integrating material from other pharmacy courses. Level: Undergraduate/Graduate

**PHAR 579 - Community Pharmacy APPE. 6 Credits.**

(R-18) Offered every term. Restricted to students in the Professional Pharmacy program. Students must have completed the didactic courses in the program prior to registration. Supervised professional experience in the patient care functions of the pharmacist in the community pharmacy setting. Level: Undergraduate/Graduate

**PHAR 580 - Hospital Pharmacy APPE. 6 Credits.**

(R-12) Offered every term. Restricted to students in the Professional Pharmacy program. Students must have completed the didactic courses in the program prior to registration. Supervised professional experience in the patient care functions of the pharmacist in the hospital pharmacy setting. Level: Undergraduate/Graduate

**PHAR 581 - Inpatient APPE. 6 Credits.**

(R-12) Offered every term. Restricted to students in the Professional Pharmacy program. Students must have completed the didactic courses in the program prior to registration. Supervised professional experience in the clinical functions of the pharmacist in the inpatient hospital setting. Level: Undergraduate/Graduate

**PHAR 582 - Ambulatory Care APPE. 6 Credits.**

(R-18) Offered every term. Restricted to students in the Professional Pharmacy program. Students must have completed the didactic courses in the program prior to registration. Supervised professional experience in the clinical functions of the pharmacist in the ambulatory care setting. Level: Undergraduate/Graduate

**PHAR 583 - Drug Information APPE. 6 Credits.**

(R-12) Offered every term. Restricted to students in the Professional Pharmacy program. Students must have completed the didactic courses in the program prior to registration. Supervised professional experience in the provision of drug information by the pharmacist. Level: Undergraduate/Graduate

**PHAR 584 - Specialized Services APPE. 6 Credits.**

(R-12) Offered every term. Restricted to students in the Professional Pharmacy program. Students must have completed the didactic courses in the program prior to registration. Supervised professional experience in specialized practice settings, such as home infusion, compounding, and nuclear pharmacies. Level: Undergraduate/Graduate

**PHAR 585 - Geriatric APPE. 6 Credits.**

(R-12) Offered every term. Restricted to students in the Professional Pharmacy program. Students must have completed the didactic courses in the program prior to registration. Supervised professional experience with geriatric patients in the long term care and/or other pharmacy setting. Level: Undergraduate/Graduate

**PHAR 586 - Clinical Specialty APPE. 6 Credits.**

(R-18) Offered every term. Restricted to students in the Professional Pharmacy program. Students must have completed the didactic courses in the program prior to registration. Supervised professional experience in the clinical functions of the pharmacist in specialty settings or with specialized groups of patients. Level: Undergraduate/Graduate

**PHAR 587 - Administrative APPE. 6 Credits.**

(R-12) Offered every term. Restricted to students in the Professional Pharmacy program. Students must have completed the didactic courses in the program prior to registration. Supervised professional experience in the administrative aspects of providing pharmaceutical care. Level: Undergraduate/Graduate



**PHAR 588 - Research APPE. 6 Credits.**

(R-12) Offered every term. Restricted to students in the Professional Pharmacy program. Students must have completed the didactic courses in the program prior to registration. Supervised professional experience in a research setting. Level: Undergraduate/Graduate

**PHAR 589 - Education APPE. 6 Credits.**

(R-12) Offered every term. Restricted to students in the Professional Pharmacy program. Students must have completed the didactic courses in the program prior to registration. Supervised professional experience in teaching in a pharmacy curriculum. Level: Undergraduate/Graduate

**PHAR 591 - Special Topics. 1-12 Credits.**

(R-12) Offered intermittently. Experimental offerings of visiting professors, experimental offerings of new courses, or one-time offerings of current topics. Level: Undergraduate/Graduate

**PHAR 592 - Independent Study. 1-9 Credits.**

(R-9) Offered every term. Course material appropriate to the needs and objectives of the individual student. Level: Undergraduate/Graduate

## Philosophy (PHL)

**PHL 101L - Introduction to Philosophy. 3 Credits.**

Offered yearly. An introduction to philosophy through examination of the thought of selected great philosophers or traditional positions on classical philosophical problems.

Gen Ed Attributes: Literary & Artistic Studies

**PHL 102L - Introduction to Existentialism. 3 Credits.**

Offered yearly. An introduction to the philosophical writings of the major existentialists. Topics include the nature of the self, freedom, personal responsibility, authenticity, and moral value.

Gen Ed Attributes: Literary & Artistic Studies

**PHL 110E - Introduction to Ethics. 3 Credits.**

Offered every term. An examination of the Western vision of morality through the careful study of selected writings from Aristotle, Kant and Mill. Additional works in ethics may supplement primary readings.

Gen Ed Attributes: Ethical & Human Values

**PHL 112E - Intro Ethics and Environment. 3 Credits.**

Offered intermittently. An introductory-level ethics course with a special interest in the natural environment. The course will (a) introduce students to the three classical traditions in ethics - virtue, Kantianism, and utilitarianism, (b) ground these theories in questions about the moral status of non-humans and our moral duties to non-humans, (c) include an applied section that covers animal welfare, biotechnology, and other current topics.

Gen Ed Attributes: Ethical & Human Values

**PHL 114E - Intro to Political Ethics. 3 Credits.**

Offered intermittently. An examination of justice and the role it plays in constitutional democratic societies. Three basic approaches to political philosophy will be considered: libertarianism, liberal egalitarianism, and communitarianism.

Gen Ed Attributes: Ethical & Human Values, Democracy and Citizenship

**PHL 191 - Special Topics. 1-6 Credits.**

(R-6) Offered intermittently. Experimental offerings of visiting professors, experimental offerings of new courses, or one-time offerings of current topics.

**PHL 198 - Internship. 1-6 Credits.**

(R-6) Offered intermittently. Extended classroom experience that provides practical application of classroom learning during placements off campus. Prior approval must be obtained from the faculty supervisor. A maximum of 6 credits of Internship (198, 298, 398, 498) may count toward graduation.

**PHL 210E - Moral Philosophy. 3 Credits.**

Offered yearly. Restricted to majors and minors in Philosophy. An examination of leading approaches to moral philosophy through a careful reading of classical texts in the Western tradition. A more thorough treatment of the material offered in PHL 110E.

Gen Ed Attributes: Ethical & Human Values, Writing Across the Curriculum

**PHL 233 - Intro to Logic: Deduction. 3 Credits.**

Offered yearly. Understanding general principles of reasoning and the habits of clear and correct thinking. Emphasis on the analysis of the logical structure of claims in natural language and the skills of elementary deductive inference.

**PHL 241N - Hist & Philosophy of Science. 3 Credits.**

Offered intermittently. The epistemological and metaphysical developments of natural philosophy or science. The origins of science in ancient Greece, and its subsequent developments during the scientific revolution. Developments in biology, especially Darwinism and genetics, and developments in physics.

Gen Ed Attributes: Historical Studies, Natural Science

**PHL 261Y - History of Ancient Philosophy. 3 Credits.**

Offered autumn. Introduction to the central works of Plato and Aristotle, with an overview of Presocratic philosophy.

Gen Ed Attributes: Democracy and Citizenship

**PHL 262Y - History of Modern Philosophy. 3 Credits.**

Offered spring. A survey of the history of philosophy from Descartes to Kant, which includes other continental rationalists and the British Empiricists.

Gen Ed Attributes: Democracy and Citizenship

**PHL 291 - Special Topics. 1-6 Credits.**

(R-6) Offered intermittently. Experimental offerings of visiting professors, experimental offerings of new courses, or one-time offerings of current topics.

**PHL 292 - Independent Study. 1-6 Credits.**

(R-6) Offered intermittently. Course material appropriate to the needs and objectives of the individual student.

**PHL 298 - Internship. 1-6 Credits.**

(R-9) Offered intermittently. Extended classroom experience that provides practical application of classroom learning during placements off campus. Prior approval must be obtained from the faculty supervisor. A maximum of 6 credits of Internship (198, 298, 398, 498) may count toward graduation.

**PHL 306 - Science, Democracy, and Truth. 3 Credits.**

In this course we examine how science works and the relationship between science and democracy in the misinformation age.

Gen Ed Attributes: Democracy and Citizenship



**PHL 309E - The Art of Living. 3 Credits.**

Offered intermittently. This course examines the ancient Greek conception of philosophy as a way of life and explores some of the following ethical questions: What is happiness? What is a good life? How should I live? Should I fear death? What role should reason play in my life? What role should the emotions play? What is friendship? What is love? What is marriage? Course materials will be drawn from a mixture of traditional philosophical works (including works by Plato, Aristotle, Epicurus, Seneca) together with some philosophically challenging works of literature, film, and music. Students will be expected not only to examine these materials closely but also to reflect upon their own convictions about these matters and to try to adhere to the Delphic injunction to know thyself.

Gen Ed Attributes: Ethical & Human Values

**PHL 316 - Historical Figures in Phil. 3 Credits.**

(R-9) Offered intermittently. Study of one or more historically significant philosophers. Intended primarily for non-majors.

**PHL 317E - Law and Morality. 3 Credits.**

Offered intermittently. An examination of moral issues that arise in legal contexts, such as: justifications of state power to punish wrong doing, justifications for rights to private property or privacy, the nature of human rights.

Gen Ed Attributes: Ethical & Human Values, Democracy and Citizenship

**PHL 318 - Applied Logic. 3 Credits.**

Offered Spring. The course focuses on analytical thinking skills and covers basic elements of both deductive and inductive logic. Analytical thinking skills involve the ability to assess reasons, arguments, and evidence provided in support of a claim. Students will develop their analytical thinking skills in logically assessing various forms of reasoning in various contexts: logic games, short arguments, and more developed reading excerpts – independently of subject matter.

**PHL 319E - Law and Discrimination. 3 Credits.**

Offered intermittently. An examination of the philosophical analyses of discrimination and how these analyses apply to discriminatory practices in the US legal system, including an investigation of which of these discriminatory practices are morally and legally wrong and why. The course may focus on one or more of the following: racism, sexism, ableism, and speciesism.

Gen Ed Attributes: Ethical & Human Values, Cultural & International Diversity, Democracy and Citizenship

**PHL 321E - Philosophy & Biomedical Ethics. 3 Credits.**

Offered intermittently. An examination of ethical problems raised by the practice of medicine and by recent developments in medically-related biological sciences.

Gen Ed Attributes: Ethical & Human Values

**PHL 323 - Ethics of Climate Change. 3 Credits.**

Offered intermittently. This course examines some of the fundamental issues raised by global climate change and considers how environmental ethics might help to address these issues. Students will become acquainted with the essential elements of climate change science and be provided with an introduction to contemporary approaches to environmental ethics that have developed out of the primary ethical traditions of western thought: deontological (Kantian) ethics, utilitarian ethics, and virtue ethics. In addition, the course examines alternative understandings of the appropriate relationship between humans and the natural world including: "Deep Ecology" and Native American perspectives.

**PHL 327L - Aesthetics and the Arts. 3 Credits.**

Offered intermittently. This course provides a broad overview of aesthetics, otherwise known as the philosophy of art. It is appropriate for students with no prior background in philosophy. Artists and students who study art are encouraged to enroll. The primary goal will be to give students the conceptual tools to reflect more deeply on art and their relationship with it in a way that will make an impact on their daily lives going forward.

Gen Ed Attributes: Literary & Artistic Studies

**PHL 365 - Philosophy of Mind and Consciousness. 3 Credits.**

Offered intermittently. Examination of philosophical issues concerning the relation between mind and body.

**PHL 390 - Research. 1-9 Credits.**

(R-9) Offered intermittently. Independent research under the direction of a faculty member.

**PHL 391 - Special Topics. 1-9 Credits.**

(R-9) Offered intermittently. Experimental offerings of visiting professors, experimental offerings of new courses, or one-time offerings of current topics.

**PHL 392 - Independent Study. 1-9 Credits.**

(R-9) Offered intermittently. Course material appropriate to the needs and objectives of the individual student.

**PHL 394 - Seminar. 1-9 Credits.**

(R-9) Offered intermittently. A review and discussion of current research. Topics vary.

**PHL 398 - Internship. 1-6 Credits.**

(R-6) Offered intermittently. Extended classroom experience that provides practical application of classroom learning during placements off campus. Prior approval must be obtained from the faculty supervisor. A maximum of 6 credits of Internship (198, 298, 398, 498) may count toward graduation.

**PHL 400 - Advanced Writing in Philosophy. 1 Credit.**

Offered intermittently. Restricted to students with senior standing. This course must be taken along with any 400-level philosophy course except PHL 498. Capstone writing course intended for senior philosophy majors.

Level: Undergraduate

Gen Ed Attributes: Writing in the Disciplines

**PHL 403 - Wittgenstein. 3 Credits.**

Offered intermittently. Prereq., PHL 233. Reading and interpretation of selected works of Wittgenstein. Level: Undergraduate-Graduate

**PHL 407 - Epistemology. 3 Credits.**

Offered intermittently. Prereq., PHL 210E. Examination of philosophical issues involving knowledge and justified belief. Level: Undergraduate-Graduate

**PHL 415 - Issues in the Anthropocene. 3 Credits.**

Reading and interpretation of selected works on the epoch of the Anthropocene. Co-convenes with PHL 515. Level: Undergraduate.

**PHL 422 - Environmental Philosophy. 3 Credits.**

Critical exploration of selected philosophical and literary texts pertinent to the ethics of human relationships with the natural environment. Level: Undergraduate. Co-convenes with PHL 522. Level: Undergraduate

**PHL 423 - Science and the Environment. 3 Credits.**

Offered intermittently. This course aims to equip environmentalists, or those with environmentalist leanings with some useful knowledge about how science works, its relation to values, modeling in science, and then foundational issues in ecology and climate science. Reading and interpretation of selected works. Co-convenes with PHL 523. Level: Undergraduate

**PHL 424 - Environmental Aesthetics. 3 Credits.**

Reading and interpretation of selected works on environmental aesthetics. Co-convenes with PHL 524. Level: Undergraduate.

**PHL 427 - Topics in Philosophy of Art. 4 Credits.**

(R-9) Offered intermittently. Examination of philosophical problems related to particular arts and discussion of the nature of the arts. Topics considered may include music, visual arts, literature, and film. Level: Undergraduate-Graduate

**PHL 429 - Philosophy and Literature. 3 Credits.**

Offered intermittently. Prereq., PHL 110E or PHL 112E or PHL 114E or PHL 210E. Examination of philosophical problems related to literature. Level: Undergraduate-Graduate

**PHL 448 - Philosophy and Animals. 3 Credits.**

In this course, we investigate the moral justification(s) of differential treatment between human and non-human animals (or the lack thereof). We first survey various animal ethics theories and theories of animal cognition. We then investigate the ethical implications of such theories regarding our treatment of nonhuman animals in various current practices and policies, including some of the following: eating habits, scientific experimentation, animal captivity (zoos and aquariums), as well as hunting/fishing and other human practices regarding wildlife. Finally, we investigate issues of intersectionality between race, gender, and nonhuman animals. Co-convenes with PHL 548. Level: Undergraduate

**PHL 449 - History of Moral and Political Philosophy. 3 Credits.**

(R-9) Offered intermittently. Prereq., PHL 210E. Reading and interpretation of selected writings in the history of moral philosophy and/or political philosophy. Level: Undergraduate-Graduate

**PHL 450 - Contemporary Moral/Political Theory. 3 Credits.**

(R-9) Offered intermittently. Prereq., PHL 210E. Recent theories in ethics and their implications; recent work in political theory, emphasizing contemporary liberalism and its critics. Level: Undergraduate-Graduate

**PHL 451 - Justice. 3 Credits.**

Prereq., PHL 210E. A close reading and analysis of selected works underpinning the major positions in contemporary political philosophy, including liberal egalitarianism (Rawls), libertarianism (Nozick), communitarianism (MacIntyre, Taylor, Sandel), and the capabilities approach (Sen). Level: Undergraduate-Graduate

**PHL 456 - Iris Murdoch's Ethics. 3 Credits.**

Prereq., PHL 210E. An examination of Iris Murdoch's groundbreaking writings on ethics, focusing on her papers from the 1950s and 1960s. Level: Undergraduate-Graduate

**PHL 465 - Plato. 3 Credits.**

Offered intermittently. Prereq., PHL 210E and PHL 261Y. Reading and interpretation of selected works. Level: Undergraduate-Graduate

**PHL 466 - Aristotle. 3 Credits.**

Offered intermittently. Prereq., PHL 210E and PHL 261Y. Reading and interpretation of selected works. Level: Undergraduate-Graduate

**PHL 468 - 20th Century Continental Philosophy. 3 Credits.**

(R-9) Offered intermittently. Prereq., PHL 210E and PHL 262Y. Intensive study of the work of one or more 20th century continental philosophers (such as Heidegger, Husserl, Sartre, Merleau-Ponty, Ricoeur, Derrida) or several texts representing a major movement in 20th century continental thought (such as Phenomenology, Existentialism, Hermeneutics, Post-structuralism). Level: Undergraduate-Graduate

**PHL 469 - Rousseau. 3 Credits.**

Offered intermittently. Prereq., PHL 210E. Reading and interpretation of selected works. Level: Undergraduate-Graduate

**PHL 470 - Hegel. 3 Credits.**

Offered intermittently. Prereq., PHL 210E and PHL 262Y. Reading and interpretation of selected works. Level: Undergraduate-Graduate

**PHL 471 - Kierkegaard. 3 Credits.**

Reading and interpretation of selected works. Level: Undergraduate-Graduate

**PHL 472 - Thoreau. 3 Credits.**

Offered intermittently. Reading and interpretation of selected works. Co-convenes with PHL 572. Level: Undergraduate

**PHL 473 - Nietzsche. 3 Credits.**

Prereq., PHL 210E and PHL 262Y. Reading and interpretation of selected works. Level: Undergraduate-Graduate

**PHL 478 - Critical Theory. 3 Credits.**

Prereq., PHL 210E and PHL 262Y. A close reading and analysis of selected works by Horkheimer, Adorno, Marcuse, and Habermas, as well as contemporary philosophers working within the tradition. Level: Undergraduate-Graduate

**PHL 490 - Undergraduate Research. 1-9 Credits.**

(R-9) Offered intermittently. Independent research under the direction of a faculty member. Level: Undergraduate

**PHL 491 - Special Topics. 1-9 Credits.**

(R-9) Offered intermittently. Experimental offerings of visiting professors, experimental offerings of new courses, or one-time offerings of current topics. Level: Undergraduate-Graduate

**PHL 492 - Independent Study. 1-9 Credits.**

(R-9) Offered intermittently. Course material appropriate to the needs and objectives of the individual student. Level: Undergraduate-Graduate

**PHL 494 - Seminar. 1-9 Credits.**

(R-9) Offered intermittently. A review and discussion of current research. Topics vary. Level: Undergraduate-Graduate

**PHL 498 - Internship. 1-6 Credits.**

(R-6) Offered intermittently. Extended classroom experience that provides practical application of classroom learning during placements off campus. Prior approval must be obtained from the faculty supervisor. A maximum of 6 credits of Internship (198, 298, 398, 498) may count toward graduation. Level: Undergraduate-Graduate

**PHL 502 - Topics in Value Theory. 3 Credits.**

Reading and interpretation of selected writings in value theory. Level: Graduate

**PHL 506 - Philosophy of Law. 3 Credits.**

Offered intermittently. Reading and interpretation of selected writings in philosophy of law. Level: Graduate

**PHL 510 - Philosophy Colloquium. 1 Credit.**

(R-4) Offered autumn and spring. Discussion of issues related to environmental philosophy and the profession. Graded credit/no credit. Level: Graduate

**PHL 515 - Issues in the Anthropocene. 3 Credits.**

Reading and interpretation of selected works on the epoch of the Anthropocene. Co-convenes with PHL 415. Level: Graduate.

**PHL 522 - Environmental Philosophy. 3 Credits.**

This course looks in-depth at topics prominent in the first forty-five years of professional environmental philosophy. These include the intrinsic value debates, ecological feminism, environmental virtue ethics, environmental justice, indigenous perspectives, the wilderness debates, and climate ethics. Students with some background in environmental ethics will develop a sophisticated understanding of existing work in the field appropriate for a graduate degree. The work students will read appeared in English language journals and came out of university systems, professional associations, and a particular understanding of what philosophy looks like. We should be aware this gives it a distinctive bias. We will give regular consideration to this bias and consider what environmental ethics might look like without it. Although environmental philosophy is clearly connected to the practical goal of living justly within a healthy and sustainable environment, the discipline is also a serious theoretical endeavor in its own right. Students should be prepared to delve deeply into the theoretical aspects while staying alert to how they might tie these discussions back into practice. Co-convenes with PHL 422. Level: Graduate

**PHL 523 - Science and the Environment. 3 Credits.**

Offered intermittently. This course aims to equip environmentalists, or those with environmentalist leanings, with some useful knowledge about how science works, its relation to values, modeling in science, and then foundational issues in ecology and climate science. Reading and interpretation of selected works. Co-convenes with PHL 423. Level: Graduate.

**PHL 524 - Environmental Aesthetics. 3 Credits.**

Reading and interpretation of selected works on environmental aesthetics. Co-convenes with PHL 424. Level: Graduate

**PHL 548 - Philosophy and Animals. 3 Credits.**

In this course, we investigate the moral justification(s) of differential treatment between human and non-human animals (or the lack thereof). We first survey various animal ethics theories and theories of animal cognition. We then investigate the ethical implications of such theories regarding our treatment of nonhuman animals in various current practices and policies, including some of the following: eating habits, scientific experimentation, animal captivity (zoos and aquariums), as well as hunting/fishing and other human practices regarding wildlife. Finally, we investigate issues of intersectionality between race, gender, and nonhuman animals. Co-convenes with PHL 448. Level: Graduate

**PHL 572 - Thoreau. 3 Credits.**

Offered intermittently. Reading and interpretation of selected works. Co-convenes with PHL 472. Level: Graduate

**PHL 590 - Research. 1-9 Credits.**

(R-9) Offered intermittently. Independent research under the direction of a faculty member. Level: Graduate

**PHL 591 - Special Topics. 1-9 Credits.**

(R-9) Offered intermittently. Experimental offerings of visiting professors, experimental offerings of new courses, or one-time offerings of current topics. Level: Graduate

**PHL 592 - Independent Study. 1-9 Credits.**

(R-9) Offered intermittently. Course material appropriate to the needs and objectives of the individual student. Level: Graduate

**PHL 594 - Seminar. 1-9 Credits.**

(R-9) Offered intermittently. A review and discussion of current research. Topics vary. Level: Graduate

**PHL 598 - Internship. 1-12 Credits.**

(R-12) Offered intermittently. Extended classroom experience that provides practical application of classroom learning during placements off campus. Prior approval must be obtained from the faculty supervisor. Level: Graduate

**PHL 599 - Thesis/Professional Paper. 1-10 Credits.**

(R-10) Offered every semester. Preparation of a thesis, manuscript, or professional paper based on research for presentation and/or publication. Level: Graduate

## Physical Therapy (P T)

**P T 503 - PT and Health Care System. 2 Credits.**

Offered autumn. Restricted to students enrolled in entry-level DPT program. An introduction to physical therapy and its relationship to the health care system. Topics include introduction to PT as a profession, teaching and learning, ethics, laws and professional issues in physical therapy. Level: Graduate

**P T 510 - Applied Clinical Anatomy. 5 Credits.**

Offered autumn. Restricted to students enrolled in entry-level DPT program. Anatomy of the neuromusculoskeletal system and body cavities in relation to movement, function and clinical application, including associated medical terminology. Level: Graduate

**P T 516 - Movement System Exam & Eval. 4 Credits.**

Offered autumn. Restricted to students in the entry-level Doctor of Physical Therapy program. Principles of musculoskeletal examination and evaluation including posture, palpation, measurement of ROM and muscle performance, assessment of muscle length, and joint play. Level: Graduate

**P T 519 - Musculoskeletal Management I. 3 Credits.**

Offered spring. Restricted to students enrolled in entry-level DPT program. Principles of musculoskeletal examination, evaluation, and intervention. The focus is application of clinical reasoning principles when examining movement patterns and analysis of underlying musculoskeletal impairments. Level: Graduate

**P T 520 - PT & the Aging Adult. 2 Credits.**

Offered spring. Restricted to students enrolled in entry-level DPT program. Presentation of changes in adults as they progress through the lifespan. Includes the functional changes associated with aging, assessing, and managing fall risk, performance, and interpretation of functional outcome measures. Level: Graduate

**P T 523 - Clinical Medicine I. 1 Credit.**

Offered autumn. Restricted to students enrolled in entry-level DPT program. Introduction to medical screening and the PT exam within the Patient/Client Management model. Level: Graduate

**P T 524 - Clinical Medicine II. 2 Credits.**

Offered autumn. Restricted to students in the entry-level Doctor of Physical Therapy program. Introduction to pharmacology, introduction to imaging, hematology, and management of selected orthopedic surgical procedures. Level: Graduate

**P T 525 - Clinical Medicine III. 2 Credits.**

Offered autumn. Restricted to students in the entry-level Doctor of Physical Therapy program. Pathophysiology and medical and pharmacological management of oncological and immunological diseases. Level: Graduate

**P T 526 - Foundational Skills & Intervention. 3 Credits.**

Offered autumn. Restricted to students in the entry-level Doctor of Physical Therapy program. Basic skills of documentation, transfers, bed mobility, gait, and assistive device use. Level: Graduate

**P T 527 - Physical & Electrophysical Agents. 3 Credits.**

Offered spring. Restricted to students enrolled in entry-level DPT program. Physiology, indications, contraindications, and application of electrotherapy and physical agents. Theory and application of electrodiagnostic and electrotherapeutic procedures. Level: Graduate

**P T 529 - Clinical Biomechanics. 5 Credits.**

Offered autumn. Restricted to students enrolled in entry-level DPT program. The principles of biomechanics as applied to the practice of physical therapy. Level: Graduate

**P T 530 - Clinically Applied Exercise Physiology. 5 Credits.**

Offered spring. Restricted to students enrolled in entry-level DPT program. Principles and applications of the physiological adaptations to acute and chronic exercise stresses and adaptations in the clinical environment. Exercise assessment/testing, prescription and progression of the exercise program is discussed. Level: Graduate

**P T 531 - Prosthetics. 1 Credit.**

Offered spring. Prereq. enrolled in entry-level DPT program or permission of instructor. Information pertinent to pathology, examination, and evaluation of patients with amputations and conditions requiring prosthetics. The basic components of the course include types of devices, fitting, exercise programs, gait analysis and gait training. An overview of upper extremity prosthetics will be provided. Level: Graduate

**P T 532 - Foundational Skills II. 1 Credit.**

Restricted to students in the entry-level Doctor of Physical Therapy program. Principles of soft tissue mobilization, including indications, precautions, contraindications, consent, and privacy issues. Techniques include fluid mobilization techniques, fascial techniques, and neuromuscular techniques. Level: Graduate

**P T 533 - Musculoskeletal Management II. 2 Credits.**

Offered autumn. Restricted to students enrolled in entry-level DPT program. Examination, evaluation, and intervention of musculoskeletal disorders of the lumbar spine and pelvis including sacroiliac dysfunction, genitourinary issues, obstetrics, incontinence, and pelvic pain. Level: Graduate

**P T 536 - Neurosciences. 5 Credits.**

Offered spring. Prereq., enrolled in entry-level DPT program or permission of instructor. Anatomy of the head and neck, and neuroanatomy of the human nervous system with emphasis on evaluation of central nervous system lesions and pathological conditions, clinical applications to physical therapy. Level: Graduate

**P T 560 - Clinical Reasoning I. 1 Credit.**

Offered spring. Restricted to students enrolled in entry-level DPT program. Introduction to the clinical reasoning process in physical therapy. Level: Graduate

**P T 563 - Cardiopulmonary PT. 3 Credits.**

Offered autumn. Restricted to students enrolled in entry-level DPT program. Physical therapy assessment and interventions for patients with cardiovascular and/or pulmonary disease. Includes cardiovascular and pulmonary pathology, pharmacology, and differential diagnosis. Level: Graduate

**P T 565 - Pediatric Physical Therapy. 4 Credits.**

Offered spring. Restricted to students in the entry-level Doctor of Physical Therapy program. Typical and atypical development throughout childhood. Physical therapy examination, evaluation and intervention of children with neuromotor and musculoskeletal dysfunction. Introduction to the various pediatric practice settings. Level: Graduate

**P T 567 - Neurorehabilitation I. 4 Credits.**

Offered autumn. Restricted to students enrolled in entry-level DPT program. Neurologic physical therapy assessment and intervention of adults. Principles of neuroplasticity, motor control, motor learning and application to physical therapy neurorehabilitation. Includes wheelchair seating and mobility assessment and prescription. Level: Graduate

**P T 568 - Neurorehabilitation II. 3 Credits.**

Offered spring. Restricted to students enrolled in entry-level DPT program. Neurologic physical therapy assessment and intervention of adults. Principles of neuroplasticity, motor control, motor learning and application to physical therapy neurorehabilitation. Includes assessment and treatment of vestibular system and conditions. Level: Graduate

**P T 569 - Musculoskeletal Management III. 4 Credits.**

Offered autumn. Restricted to students enrolled in entry-level DPT program. Principles of musculoskeletal examination, evaluation, and intervention for the hip, knee, ankle, and foot. Level: Graduate

**P T 570 - Psychosocial Aspects of Health and Wellness. 2 Credits.**

Offered autumn. Restricted to students enrolled in entry-level DPT program. Psychosocial aspects of health and wellness including social/societal determinants for people from diverse backgrounds throughout the lifespan. Level: Graduate

**P T 572 - Practice & Administration. 3 Credits.**

Offered spring. Restricted to students in the entry-level Doctor of Physical Therapy program. Practice management and operations. Includes strategic planning, human resource management, regulatory compliance/risk management, quality improvement, clinical coding, billing instruction, and career development. Level: Graduate

**P T 573 - Musculoskeletal Management IV. 6 Credits.**

Offered spring. Restricted to students enrolled in entry-level DPT program. Principles of musculoskeletal examination, evaluation, and intervention for the shoulder, elbow, wrist, hand, temporomandibular joint (TMJ), thoracic, and cervical spine. Level: Graduate

**P T 576 - Clinical Reasoning II. 3 Credits.**

Offered autumn. Restricted to students in the entry-level Doctor of Physical Therapy program. Principles of evidence-based practice (EBP), including statistical literacy, critical appraisal of both quantitative and qualitative methods, application of evidence in clinical decision-making, and benefits/limitations of EBP and its role in the changing health care environment.

**P T 582 - Clinical Experience Introductory Course. 1 Credit.**

Offered spring. Restricted to students in the entry-level Doctor of Physical Therapy program. A mix of classroom and clinical experiences to introduce students to the expectations of professional practice. CR/NCR grading. Level: Graduate

**P T 583 - Integrated Clinical Experience I. 2 Credits.**

Offered spring. Restricted to students enrolled in entry-level DPT program. An integrated, part-time clinical experience with emphasis on patient evaluation, treatment and professional development. CR/NCR grading only. Level: Graduate



**P T 584 - Integrated Clinical Experience II. 2 Credits.**

Offered autumn. Restricted to students enrolled in entry-level DPT program. An integrated, part-time clinical experience with emphasis on patient evaluation, treatment and professional development. CR/NCR grading only. Level: Graduate

**P T 587 - Full -Time Clinical Experience I. 6 Credits.**

Offered summer. Restricted to students enrolled in entry-level DPT program. Eight weeks of full-time clinical experience with emphasis on developing patient evaluation and treatment skills. CR/NCR grading only. Level: Graduate

**P T 589 - Full-Time Clinical Experience II. 6 Credits.**

Offered summer. Restricted to students enrolled in entry-level DPT program. Eight weeks of full-time clinical experience with emphasis on learning about administrative issues, problem solving, time management, and communication skills. Continuation of development of patient treatment and evaluation skills. CR/NCR grading only. Level: Graduate

**P T 595 - Field Work/Clinical. 1-4 Credits.**

(R-4) Supervised, practical experience in a professional setting relevant to the student's field of study. Level: Graduate

**P T 603 - Examination: Test & Measures Administration in Therapy. 1 Credit.**

This course builds skills needed to select and perform tests and measures related to the domains of practice across the lifespan. Students gain skills in clinical reasoning as applied to patient management across acute, sub-acute, and chronic stages of injury and healing. Through cases that span the lifespan, students apply clinical reasoning to select appropriate test and measures in all of the above listed domains of practice. Additionally, these case studies focus on managing patients across the lifespan as well as across the spectrum of health care settings, acute-chronic conditions, and simple to complex (multi-system) involvement. Through dynamic lectures, demonstration videos, and active learning assignments, students engage in patient management, specifically the physical therapy exam focused on testing and measurement administration of body structure/function, and activity of the following: anthropometric characteristics, assistive and adaptive devices, community/work (job, school, or play) reintegration, environmental/home/work barriers, ergonomics and body mechanics, joint integrity and mobility, muscle performance, neuromotor development and sensory processing, pain, range of motion, reflex integrity, self-care and home management, sensory integration, mobility, and peripheral nerve integrity.

**P T 604 - Medical & Surgical Procedures Across the Lifespan and Patient Emergency Procedures. 1 Credit.**

Using progressively complex cases across the lifespan, students will apply clinical reasoning to common, highly complex medical and surgical conditions. Students will investigate community resources designed to support the management of complex cases at home or in residential living centers across the lifespan and diagnostic conditions. Related surgical management, discharge planning, and discontinuation of PT services are discussed. Patient management of these medical/surgical conditions are explored across acute, sub-acute, and chronic stages of injury, surgery and healing. Lifespan perspectives unique to management of pediatric and geriatric patients are also presented.

**P T 606 - Cultural Competence and Psychosocial Aspects of Health and Disability. 1 Credit.**

Students explore biopsychosocial aspects of health, disease, and society through a personal assessment of their physical (physical activity, exercise, nutrition, social habits), mental (mindfulness, stress, anxiety), emotional, and spiritual health in order to identify priorities for personal change. Evidence-informed strategies for enhancing mindfulness and managing stress and anxiety are discussed. Societal issues and current resources related to illness and death, disabilities across the lifespan, suicide, addiction, violence, and aging are explored. Through dynamic lectures students analyze US and global models of healthcare delivery, population health, and begin recognizing social determinants of health. Lectures facilitate deep understanding of the quadruple aim of healthcare, the economic burden of chronic disease, and the role of physical therapists in optimizing movement to transform the human condition is integrated throughout the course.

**P T 607 - Basic Sciences for Physical Therapists: Human Physiology, Pathology, Histology and Immunology. 1 Credit.**

Using dynamic lectures, students learn to differentiate major anatomical tissues and cellular structures. This includes connective tissue – connective tissue proper, bone, cartilage, fascia, tendons, ligaments, and specialized connective tissue blood and adipose tissue; muscle – smooth, cardiac, and skeletal muscle; nerves both myelinated and unmyelinated in CNS and PNS; and epithelium, and organs. Palpation of key musculoskeletal structures is introduced using online videos and in synchronous lab sessions. The major physiological systems (nervous, endocrine, genitourinary, renal, gastrointestinal, and supporting organs, musculoskeletal, cardiac, pulmonary, lymphatic, integumentary, and hematopoietic) are also presented. Pathologies related to each of the above tissues and systems are discussed. Students also analyze the impact of immobility, acute activity/exercise and chronic training on all body structures and physiological processes.

**P T 626 - Clinical Medicine IV. 2 Credits.**

Offered autumn. Restricted to students enrolled in entry-level DPT program. Course will focus on the role of the physical therapist in a Direct Access environment. Pathology, differential screening, pharmacotherapeutics, evaluation and management of gastrointestinal, endocrine/metabolic and hepatobiliary disease. Level: Graduate

**P T 627 - Prevention & Wellness Education. 3 Credits.**

Offered autumn. Restricted to students enrolled in entry-level DPT program. Principles of public health and epidemiology as they relate to health prevention and wellness with an emphasis on clinical application and face-to-face patient interaction in the physical therapy setting. Level: Graduate

**P T 629 - Clinical Medicine V. 2 Credits.**

Offered autumn. Restricted to students enrolled in entry-level DPT program. Course will focus on evaluation, differential screening, pharmacology, and management of integumentary disorders. Includes wound assessment and treatment. Level: Graduate.

**P T 632 - Health Science Education Foundations II: Instructional Design. 3 Credits.**

Offered autumn, spring. This course examines health science curriculum design, including discussion of development of mission, vision, philosophy and outcomes. Level: Graduate

**P T 650 - Screening for Medical Disorder. 2 Credits.**

Offered autumn and spring. PT's role, responsibilities, and decision-making processes regarding appropriate referral of a patient to a physician for evaluation of medical conditions outside the scope of physical therapy. Level: Graduate



**P T 651 - Medical Imaging in Rehabilitation. 2 Credits.**

Offered autumn and summer. Provide the physical therapy clinical learner with the tools needed to interpret and apply specialized medical imaging information to the rehabilitation patient. Level: Graduate

**P T 652 - Pharmacology in Rehabilitation. 2 Credits.**

Offered autumn and spring. Provide clinical learners with the primary drug classes and the physiologic basis of their action. Level: Graduate

**P T 653 - Legal and Ethical Issues. 1 Credit.**

Offered spring, summer. Foundational information as to the legal, ethical and administrative decision making process often facing physical therapists in clinical practice. Level: Graduate

**P T 654 - Clinical Decision Making: Current Principles & Concepts. 1 Credit.**

Offered autumn and spring. Provide ways to utilize the Guide to PT Practice for effective and efficient clinical decision making. Level: Graduate

**P T 655 - Business and Marketing. 2 Credits.**

Offered spring and summer. Enhance the PT clinical learners appreciation of business and management practices needed to succeed within the current healthcare landscape. Level: Graduate

**P T 656 - Coding and Reimbursement. 1 Credit.**

Offered autumn and summer. Educate the clinical learner in analyzing reimbursement of current billing, accounts receivable, collection procedures and use of proper coding. Not required for students completing the post-professional DPT program practicing outside the US. Level: Graduate

**P T 657 - Professionalism. 2 Credits.**

This seminar course provides the clinical learner with the opportunity to analyze and discuss the roles/responsibilities and challenges/opportunities inherent in doctoral level physical therapy practice. CR/NCR grading only. Level: Graduate

**P T 658 - Critical Assessment. 3 Credits.**

Offered autumn and spring. Develop skills in the application of evidence-based practice as a model for effective clinical decision-making. Level: Graduate

**P T 659 - Capstone Project. 4 Credits.**

Development of the skills needed by physical therapists to fulfill their role as effective participants in the research process. Guide student through the capstone case report completion process. CR/NCR grading only. Level: Graduate

**P T 660 - Management of Musculoskeletal Disorders. 2 Credits.**

Offered every term. PT's role, responsibilities, and decision-making processes regarding patients with musculoskeletal disorders. Level: Graduate

**P T 661 - Management of Cardiovascular or Pulmonary Disorders. 2 Credits.**

Offered every term. PT's role, responsibilities and decision-making processes regarding appropriate patient management of persons with cardiovascular and/or pulmonary disorders. Level: Graduate

**P T 662 - Management of Neurological Disorders. 2 Credits.**

Offered every term. PT's role, responsibilities, and decision-making processes regarding patients with neurological disorders. Level: Graduate

**P T 663 - Management of Integumentary Disorders. 2 Credits.**

Offered every term. PT's role, responsibilities, and decision-making processes regarding patients with integumentary disorders. Level: Graduate

**P T 664 - Wellness and Health Promotion. 2 Credits.**

Offered every term. PT's role, responsibilities, and decision-making processes regarding patient/client involvement with wellness and health promotion. Level: Graduate

**P T 672 - Research in PT. 2 Credits.**

Offered every term. Data analysis, writing of research manuscript, presentation of project. Level: Graduate

**P T 676 - Clinical Reasoning III. 3 Credits.**

Offered autumn. Prereqs., enrolled in entry-level DPT program or consent of instructor. Course addresses critical appraisal of complex research designs and clinical reasoning related to the provision of evidence-informed care. Level: Graduate

**P T 679 - Trends & Scholarly Activity. 1-6 Credits.**

(R-6) Offered autumn and spring. Restricted to students enrolled in entry-level DPT program. Students are required to complete at least 6 credits during their 2nd and 3rd years. Seminar sections that focus on advanced clinical topics in physical therapy and/or engagement in research with an individual faculty advisor. Level: Graduate

**P T 680 - Full-Time Clinical Experience III. 11 Credits.**

Offered spring. Restricted to students in the entry-level Doctor of Physical Therapy program. Final summative experience is a 15 week clinical experience. CR/NCR grading. Level: Graduate

**P T 690 - Research. 1-10 Credits.**

(R-10) Independent research under the direction of a faculty member. Level: Graduate

**P T 691 - Special Topics. 1-6 Credits.**

(R-12) Experimental offerings of visiting professors, experimental offerings of new courses, or one-time offerings of current topics. Level: Graduate

**P T 692 - Independent Study. 1-4 Credits.**

(R-6) Course material appropriate to the needs and objectives of the individual student. Level: Graduate

**P T 694 - Seminar/Workshop. 1-6 Credits.**

(R-6) A review and discussion of current research. Topics vary. Level: Graduate

**P T 699 - Dissertation. 1-10 Credits.**

(R-10) Offered every term. Preparation of a dissertation or manuscript based on research for presentation and/or publication. CR/NCR grading only. Level: Graduate

## Physician Associate Studies (PA)

**PA 511 - Introduction to Health Professions & PA Practice. 1 Credit.**

Restricted to students in the Master of Physician Associate Studies program. In this course the student will be given the opportunity to: 1) examine the role of the physician associate in health care delivery and the scope of PA practice; 2) interpret health policy and law; 3) review the physician associate profession and its history; 4) discuss the ethical dimensions in health care; and 5) recognize the PA role in interprofessional health care.

**PA 512 - Preventive Medicine. 2 Credits.**

Restricted to students in the Master of Physician Associate Studies program. This course is designed to introduce students to the discipline of health promotion and preventive medicine. Many illnesses that patients suffer from and succumb to could be avoided with timely and appropriate behavioral intervention, screening, and preventive measures. Benjamin Franklin understood this concept in 1736 when he famously stated that "an ounce of prevention is worth a pound of cure." This course will give students the evidence-based knowledge and tools necessary to impart meaningful changes in their patients' lives. Specifically, the student will be given the opportunity to: 1) gain familiarity with methods to promote overall health and well-being; 2) discuss the importance of identifying risk factors for disease; 3) explore commonly used preventive medicine guidelines; 4) discuss different types of commonly used screening tools; 5) understand common cancer screening guidelines; 6) gain familiarity with routine immunization schedules for both pediatric and adult patients; 7) discuss the importance of smoking cessation for all patients; 8) describe patient advocacy; and 9) discuss disease reporting and surveillance, the public health system, and population health.

**PA 513 - Evidence-based Medicine. 1 Credit.**

Restricted to students in the Master of Physician Associate Studies program. This course is designed to help students navigate the medical literature to find answers to clinical questions that are based on valid medical research evidence, referred to as evidence-based medicine (EBM). Understanding of research methods is essential for an effective practice of EBM as future clinicians. During this course, students will learn and practice how to: 1) formulate research and clinical questions; 2) search common databases of available medical literature; 3) differentiate between various types of research studies; 4) recognize different types of biases in research and threats to validity of research findings; 5) compare and contrast different types of sampling methods; 6) critically appraise the literature for selected clinical topics; and 7) appreciate the value of lifelong learning in the health professions.

**PA 514 - Cross-Cultural Health. 1 Credit.**

Prereq., PA 511, PA 512, PA 513, PA 531, PA 541, PA 544, and PA 550 with a minimum grade of B-. Restricted to students in the Master of Physician Associate Studies program. In this course, the student will be challenged to interrogate and refine their own belief systems while working to build a general understanding of cultural knowledge. The student will be given the opportunity to recognize and mitigate factors that contribute to health disparities and limited access. The student will also learn practical strategies for engaging patients in a manner that demonstrates cultural humility.

**PA 516 - Medical Ethics. 1 Credit.**

Prereq., PA 534, PA 543, PA 546, PA 551, and PA 595 with a minimum grade of B-. Restricted to students in the Master of Physician Associate Studies program. As stated by William Osler, "The practice of medicine is an art, not a trade; a calling, not a business; a calling in which your heart will be exercised equally with your head." One must always act by a code of ethics and a duty of service that in medicine puts patient care above self-interest. This course is designed to introduce students to the field of medical ethics and allow students to critically think through common ethical scenarios faced throughout clinical practice. The University of Montana PA Program supports the AAPA's Guidelines for Ethical Conduct for the Physician Assistant Profession (<https://www.aapa.org/wp-content/uploads/2017/02/16-EthicalConduct.pdf>) and the NCCPA's Code of Conduct for Certified and Certifying Physician Assistants (<https://www.nccpa.net/wp-content/uploads/2020/09/Code-of-Conduct.pdf>). During this course, the student will be given the opportunity to discuss topics covered in each of these publications as well as discuss patient cases in which ethical medical decision-making is required.

**PA 521 - Diagnostic Methods. 2 Credits.**

Prereq., PA 511, PA 512, PA 513, PA 531, PA 541, PA 544, and PA 550 with a minimum grade of B-. Restricted to students in the Master of Physician Associate Studies program. This course is designed to introduce students to the different diagnostic methods available for the evaluation and diagnosis of medical conditions in patients. It will specifically cover the different imaging modalities including plain radiography (X-ray), computed tomography (CT), magnetic resonance imaging (MRI), ultrasonography, vascular imaging, as well as electrocardiograms (ECGs), echocardiograms (ECHOs), and pulmonary function tests (PFTs). The student will be given the opportunity to: 1) list commonly used diagnostic studies; 2) understand risks associated with these studies; 3) list contraindications to the use of certain studies; 4) provide basic interpretations of each diagnostic study; 5) understand the use of contrast in certain radiological studies; and 6) appreciate the difference between routine, urgent, and emergent studies.

**PA 522 - Behavioral Health. 2 Credits.**

Restricted to students in the Master of Physician Associate Studies program. During this course, the student will be given the opportunity to: 1) identify normal physical, social, and psychosocial processes and distinguish these from processes due to illness and injury; 2) understand the neurobiological processes and genetics in relation to mental illness; 3) provide a foundation for assessing a patient's state of mental health and development; 4) explain the classification of common mental illnesses set forth in the Diagnostic and Statistical Manual of Mental Disorders; 5) recognize the importance of an appropriate and timely referral; 6) recognize the importance of other healthcare professionals in the management of patients with mental illness; 7) recognize the importance of family and community dynamics in the management of patients with mental illness; and 8) discover health and well-being in the clinician's personal life and how this may intertwine with the clinician-patient relationship, professionalism, and cultural competence.

**PA 523 - Professional Practice I. 2 Credits.**

Prereq., PA 534, PA 543, PA 546, PA 551, and PA 595 with a minimum grade of B-. Restricted to students in the Master of Physician Associate Studies program. This course is designed to assist the student in transitioning to clinical practice. The student will be given the opportunity to: 1) exhibit their clinical skills and review didactic knowledge gained throughout the curriculum; 2) prepare for clinical practice by developing an understanding of health policy, billing and coding, reimbursement, and professionalism issues; 3) understand the importance of ethical behavior within a healthcare team; 4) understand the importance of interprofessional practice within a healthcare team; 5) prepare for the physician assistant national certification exam (PANCE) by early study of board review materials and questions; and 6) prepare for employment.

**PA 524 - Research. 2 Credits.**

Prereq., PA 513, PA 534, PA 543, PA 546, PA 551, and PA 595 with a minimum grade of B-. Restricted to students in the Master of Physician Associate Studies program. This course is designed to follow PA 513, Evidence-based Medicine. Building on the knowledge gained from that course, students will be engaged in critically appraising synthesized evidence such as scoping review, systematic reviews and meta-analyses, and analysis of clinical practice guidelines. Students will be given opportunities to complete a project on critically appraised topics and to disseminate this project in a manuscript format and a poster presentation.

**PA 531 - Pathophysiology I. 3 Credits.**

Restricted to students in the Master of Physician Associate Studies program. This course is designed to introduce students to the systems-based pathophysiology of disease. This course will specifically cover the pathophysiology of disorders of the skin, eye, ear, and diseases/disorders within the following organ systems: cardiovascular, respiratory, and digestive. For each disease/disorder covered, the student will be given the opportunity to: 1) incorporate knowledge of normal anatomy and physiology to understand the pathophysiology of disease; 2) describe malfunctions of normal physiology associated with disease; 3) use problem-solving skills to relate pathophysiology to the clinical presentation of disease and formation of high-quality differential diagnoses; and 4) describe the pathophysiology of selected diseases.

**PA 532 - Pathophysiology II. 3 Credits.**

Prereq., PA 511, PA 512, PA 513, PA 531, PA 541, PA 544, and PA 550 with a minimum grade of B-. Restricted to students in the Master of Physician Associate Studies program. This course is designed to introduce students to the systems-based pathophysiology of disease. It will specifically cover the pathophysiology of disorders of the neurological, musculoskeletal, endocrine, urinary, reproductive, blood and circulatory, and lymphatic systems as well as special topics in infectious disease. It will also cover the pathophysiology of pregnancy complications, congenital and genetic disorders, complications of adolescence, complications of aging, and neoplasms/cancer. For each disease/disorder covered, the student will be given the opportunity to: 1) incorporate knowledge of normal anatomy and physiology to understand the pathophysiology of disease; 2) describe malfunctions of normal physiology associated with disease; 3) use problem-solving skills to relate pathophysiology to the clinical presentation of disease and formation of high-quality differential diagnoses; and 4) describe the pathophysiology of selected diseases.

**PA 533 - Clinical Pharmacology I. 3 Credits.**

Prereq., PA 511, PA 512, PA 513, PA 531, PA 541, PA 544, and PA 550 with a minimum grade of B-. Restricted to students in the Master of Physician Associate Studies program. This course is designed to introduce students to the broad scope of clinical pharmacology through an organ systems-based approach. It will specifically cover the basic principles of pharmacology, principles of pharmacogenomics, anti-infective agents, and dietary supplements and herbal medications as well as cover therapeutics used to treat conditions found in the dermatological, ophthalmological, otorhinolaryngological (ENT), cardiovascular, pulmonary, and gastrointestinal organ systems. The student will be given the opportunity to demonstrate the ability to: 1) identify the classes of drugs used to treat diseases commonly encountered in a primary care and emergency settings; 2) recognize the commonly used drugs in each class; 3) identify the basic pharmacodynamic properties of each class of drug, the mechanism of action, and important consequences of using each class of drug; 4) recognize the signs and symptoms of common adverse effects and of possible toxic or life-threatening effects of drugs; 5) identify precautions or contraindications to the use of a drug; 6) identify significant drug-drug interactions; 7) recognize the importance of patient education in determining compliance, avoidance of potential problems, and success of therapy; 8) apply statistical and critical thinking skills to evaluate literature data; 9) use resource materials for determining proper usage of chemotherapeutic agents; and 10) understand the role of the PA in writing prescriptions.

**PA 534 - Clinical Pharmacology II. 3 Credits.**

Prereq., PA 514, PA 521, PA 522, PA 532, PA 533, PA 542, and PA 545 with a minimum grade of B-. Restricted to students in the Master of Physician Associate Studies program. This course is designed to introduce students to the broad scope of clinical pharmacology through an organ systems-based approach. It will specifically cover therapeutics used to treat conditions found in the neurological, musculoskeletal, endocrine, renal, and genitourinary systems as well as drugs used in women's health, pediatrics, geriatrics, hematology/oncology, rheumatology, and those to treat obesity and special topics in infectious disease. The student will be given the opportunity to demonstrate the ability to: 1) identify the classes of drugs used to treat diseases commonly encountered in a primary care and emergency settings; 2) recognize the commonly used drugs in each class; 3) identify the basic pharmacodynamic properties of each class of drug, the mechanism of action, and important consequences of using each class of drug; 4) recognize the signs and symptoms of common adverse effects and of possible toxic or life-threatening effects of drugs; 5) identify precautions or contraindications to the use of a drug; 6) identify significant drug-drug interactions; 7) recognize the importance of patient education in determining compliance, avoidance of potential problems, and success of therapy; 8) apply statistical and critical thinking skills to evaluate literature data; 9) use resource materials for determining proper usage of chemotherapeutic agents; and 10) understand the role of the physician assistant in writing prescriptions.

**PA 541 - Patient Assessment I. 4 Credits.**

Restricted to students in the Master of Physician Associate Studies program. This course is designed to introduce students to patient assessment using an organ systems-based approach to history taking and the completion of physical examinations. It will initially cover general principles of history taking and physical examinations as well as assessment components of the skin, hair, nails, head, eyes, ears, nose, throat, and neck. The second part of the course will progress into the cardiovascular system, peripheral vascular system, pulmonary system/thorax, and abdomen. The student will be given the opportunity to 1) communicate skillfully with patients using appropriate interviewing and patient education methods; 2) obtain thorough focused and general medical histories; 3) demonstrate proper use of instruments and techniques in the performance of physical examinations; 4) apply knowledge acquired in anatomy, physiology, and other courses to the assessment of patients; 5) detect and analyze abnormal interview and physical exam findings; 6) correlate essential historical data with exam findings; and 7) discuss pertinent available patient resources.

**PA 542 - Patient Assessment II. 4 Credits.**

Prereq., PA 511, PA 512, PA 513, PA 531, PA 541, PA 544, and PA 550 with a minimum grade of B-. Restricted to students in the Master of Physician Associate Studies program. This course is designed to introduce students to patient assessment using an organ systems-based approach to history-taking and the completion of physical examinations. It will specifically cover assessment components of the nervous and musculoskeletal systems building on the knowledge gained from PA 541, Patient Assessment I. The student will be given the opportunity to 1) communicate skillfully with patients using appropriate interviewing and patient education methods; 2) obtain thorough focused and general medical histories; 3) demonstrate proper use of instruments and techniques in the performance of physical examinations; 4) apply knowledge acquired in anatomy, physiology, and other courses to the assessment of patients; 5) detect and analyze abnormal interview and physical exam findings; 6) correlate essential historical data with exam findings; and 7) discuss pertinent available patient resources.

**PA 543 - Patient Assessment III. 4 Credits.**

Prereq., PA 514, PA 521, PA 522, PA 532, PA 533, PA 541, PA 542, and PA 545 with a minimum grade of B-. Restricted to students in the Master of Physician Associate Studies program. This course is designed to introduce students to patient assessment using an organ systems-based approach to history taking and the completion of physical examinations. It will specifically cover assessment components of male genitalia, female genitalia, female breast, and pregnant, pediatric, and geriatric patients, building on the knowledge gained from PA 541, Patient Assessment I, and PA 542, Patient Assessment II. The student will be given the opportunity to 1) communicate skillfully with patients using appropriate interviewing and patient education methods; 2) obtain thorough focused and general medical histories; 3) demonstrate proper use of instruments and techniques in the performance of physical examinations; 4) apply knowledge acquired in anatomy, physiology, and other courses to the assessment of patients; 5) detect and analyze abnormal interview and physical exam findings; 6) correlate essential historical data with exam findings; and 7) discuss pertinent available patient resources.

**PA 544 - Clinical Medicine I. 4 Credits.**

Restricted to students in the Master of Physician Associate Studies program. This course is designed to introduce students to the broad scope of clinical medicine through an organ systems-based approach. It will specifically cover diseases found in dermatology, ophthalmology, otorhinolaryngology (ear, nose, and throat), and the cardiovascular, pulmonary, and gastrointestinal systems. For each disease/disorder covered, the student will be given the opportunity to: 1) understand biological processes and genetics in relation to pathologic disease; 2) recognize common and atypical presentations of disease; 3) develop a high quality list of differential diagnoses; 4) design an appropriate diagnostic approach; 5) interpret common radiological and laboratory studies needed for evaluation; 6) construct an appropriate treatment plan; and 7) recognize the impact of consulting other healthcare professionals in a patient's management as clinically indicated.

**PA 545 - Clinical Medicine II. 4 Credits.**

Prereq., PA 511, PA 512, PA 513, PA 531, PA 541, PA 544, and PA 550 with a minimum grade of B-. Restricted to students in the Master of Physician Associate Studies program. This course is designed to introduce students to the broad scope of clinical medicine through an organ systems-based approach. It will specifically cover diseases found in the neurological, musculoskeletal, and endocrine systems as well as infectious diseases. For each disease/disorder covered, the student will be given the opportunity to: 1) understand biological processes and genetics in relation to pathologic disease; 2) recognize common and atypical presentations of disease; 3) develop a high quality list of differential diagnoses; 4) design an appropriate diagnostic approach; 5) interpret common radiological and laboratory studies needed for evaluation; 6) construct an appropriate treatment plan; and 7) recognize the impact of consulting other healthcare professionals in a patient's management as clinically indicated.

**PA 546 - Clinical Medicine III. 4 Credits.**

Prereq., PA 514, PA 521, PA 522, PA 533, PA 542, PA 544, and PA 545 with a minimum grade of B-. Restricted to students in the Master of Physician Associate Studies program. This course is designed to introduce students to the broad scope of clinical medicine through an organ systems-based approach. It will specifically cover diseases found in the renal and genitourinary organ systems as well as cover diseases found in women's health, pediatrics, geriatrics, hematology, and rheumatology. For each disease/disorder covered, the student will be given the opportunity to: 1) understand biological processes and genetics in relation to pathologic disease; 2) recognize common and atypical presentations of disease; 3) develop a high quality list of differential diagnoses; 4) design an appropriate diagnostic approach; 5) interpret common radiological and laboratory studies needed for evaluation; 6) construct an appropriate treatment plan; and 7) recognize the impact of consulting other healthcare professionals in a patient's management as clinically indicated.



**PA 550 - Anatomy & Physiology. 4 Credits.**

Restricted to students in the Master of Physician Associate Studies program. This course is designed to acquire understanding of normal human clinical anatomy and physiology through an organ systems-based approach. This course will start with a review of histology and an in-depth coverage of the integumentary system. It will additionally examine the normal clinical anatomy and physiology associated with the head and neck to include eyes, ears, nose, and throat. It will progress through the organ systems to include cardiovascular, pulmonary, gastrointestinal, neurological, musculoskeletal, renal, and genitourinary systems. Lectures will be synchronous and include both anatomy and physiology content. Students will use programs that provide the opportunity to explore anatomy in a virtual setting. Experience in the cadaver lab will supplement this course.

**PA 551 - Clinical Skills. 5 Credits.**

Prereq., PA 514, PA 521, PA 522, PA 533, PA 542, and PA 545 with a minimum grade of B-. Restricted to students in the Master of Physician Associate Studies program. This course is designed to prepare the student for supervised clinical practice by introducing procedures commonly performed in the clinical setting. The student will be given the opportunity to demonstrate the ability to: 1) understand the indications for performing specific clinical procedures; 2) perform the appropriate procedures; 3) counsel the patient regarding both procedures and management; 4) interpret data acquired from procedures in primary care and relevant subspecialty areas; 5) successfully perform resuscitative procedures under simulated clinical conditions; and 6) appreciate the significance of cultural and ethnic factors in patient management. This course is taught using a variety of instruction methods including textbooks, lectures, online videos, class discussion, instructor demonstrations, and small group work.

**PA 595 - Supervised Clinical Practice Experience. 6 Credits.**

(R-48) Prereq., PA 534, PA 543, PA 546, and PA 551 with a minimum grade of B-. Restricted to students in the Master of Physician Associate Studies program. In the supervised clinical practice experience (SCPE) setting, the student will apply the fundamental medical knowledge developed during the didactic year. All students in the cohort must complete eight (8) required supervised clinical practice experiences (SCPEs) or specialties.

## Physics (PHSX)

**PHSX 101 - The Physics Experience. 1 Credit.**

Offered autumn. This course is intended for all incoming students either majoring in physics or considering majoring in physics. This seminar course presents an overview of the undergraduate experience as a physics major. Seminars on recent developments in physics and astronomy and opportunities for undergraduate involvement in research and instruction are included.

**PHSX 105N - Fundamentals of Physical Science. 3 Credits.**

Offered every term. Offered at Missoula College. An introduction to the basic principles of physics, chemistry, and nuclear reactions with emphasis on the scientific method and process. Topics include scientific process; motion; work and energy; heat and temperature; and waves (sound and light); atomic structure; the periodic table of elements; chemical bonding and nomenclature; chemical formulas and equations; and solutions. Knowledge of basic algebraic functions, decimals, and scientific notation is recommended. Suitable for students with little science background.

Gen Ed Attributes: Natural Science

**PHSX 141N - Einstein's Relativity. 3 Credits.**

Offered spring. A working knowledge of high school physics and high school calculus is recommended. Modern theoretical study of space, time, the principle of relativity, and its implications. Analysis of apparent paradoxes, and applications to particle physics.

Gen Ed Attributes: Natural Science

**PHSX 191 - Special Topics. 1-6 Credits.**

(R-6) Offered intermittently. Experimental offerings of visiting professors, experimental offerings of new courses, or one-time offerings of current topics.

**PHSX 192 - Independent Study. 1-6 Credits.**

(R-6) Offered intermittently. Course material appropriate to the needs and objectives of the individual student.

**PHSX 198 - Internship. 1-6 Credits.**

(R-6) Offered intermittently. Extended classroom experience that provides practical application of classroom learning during placements off campus. Prior approval must be obtained from the faculty supervisor. A maximum of 6 credits of Internship (198, 298, 398, 498) may count toward graduation.

**PHSX 205N - College Physics I. 4 Credits.**

Offered autumn and spring. Prereq., M 122 or M 151 or EdReady placement level 4.5 or Maplesoft Calculus score  $\geq 15$ . Coreq. or prereq. PHSX 206N. Mechanics, sound, and heat. For non-physical science majors. This course satisfies the lecture portion of medical school requirements in general physics. Credit not allowed for both PHSX 215N/PHSX 218N and PHSX 205N/PHSX 208N.

Gen Ed Attributes: Natural Science

**PHSX 206N - College Physics I Laboratory. 1 Credit.**

Offered autumn and spring. Prereq. or coreq., PHSX 205N. Mechanics, sound, and heat. For non-physical science majors. This course satisfies the laboratory portion of medical school requirements in general physics. Credit not allowed for both PHSX 215N/PHSX 218N and PHSX 205N/PHSX 208N.

Gen Ed Attributes: Natural Science Lab Course, Natural Science

**PHSX 207N - College Physics II. 4 Credits.**

Offered autumn and spring. Prereq., PHSX 205N. Prereq. or coreq., PHSX 208N. Electricity, magnetism, light, and modern physics. For non-physical science majors. This course satisfies the lecture portion of medical school requirements in general physics. Credit not allowed for both PHSX 215N/PHSX 218N and PHSX 205N/PHSX 208N.

Gen Ed Attributes: Natural Science

**PHSX 208N - College Physics II Laboratory. 1 Credit.**

Offered autumn and spring. Prereq., PHSX 206N. Prereq. or coreq., PHSX 207N. Electricity, magnetism, light and modern physics. For non-physical science majors. This course satisfies the laboratory portion of medical school requirements in general physics. Credit not allowed for both PHSX 215N/PHSX 218N and PHSX 205N/PHSX 208N.

Gen Ed Attributes: Natural Science Lab Course, Natural Science

**PHSX 215N - Fundamentals of Physics with Calculus I. 4 Credits.**

Offered autumn. Prereq. or coreq., PHSX 216N and M 171. This course satisfies the lecture portion of medical and technical school requirements in general physics. Mechanics, fluids, waves and sound. Credit not allowed for both PHSX 215N/PHSX 218N and PHSX 205N/PHSX 208N.

Gen Ed Attributes: Natural Science



**PHSX 216N - Physics Laboratory I with Calculus. 1 Credit.**

Offered autumn. Coreq., PHSX 215N. This course satisfies the laboratory portion of medical and technical school requirements in general physics. Mechanics, fluids, waves, and sound. Credit not allowed for both PHSX 215N/PHSX 218N and PHSX 205N/PHSX 208N.

Gen Ed Attributes: Natural Science Lab Course, Natural Science

**PHSX 217N - Fundamentals of Physics with Calculus II. 4 Credits.**

Offered spring. Prereq., PHSX 215N. Prereq. or coreq., PHSX 218N and M 172. This course satisfies the lecture portion of medical and technical school requirements in general physics. Heat, electricity, magnetism, and light. Credit not allowed for both PHSX 215N/PHSX 218N and PHSX 205N/PHSX 208N.

Gen Ed Attributes: Natural Science

**PHSX 218N - Physics Laboratory II with Calculus. 1 Credit.**

Offered spring. Prereq., PHSX 215N. Coreq., PHSX 217N. This course satisfies the laboratory portion of medical and technical school requirements in general physics. Heat, electricity, magnetism, and light. Credit not allowed for both PHSX 215N/PHSX 218N and PHSX 205N/PHSX 208N.

Gen Ed Attributes: Natural Science Lab Course, Natural Science

**PHSX 291 - Special Topics. 1-9 Credits.**

(R-9) Offered intermittently. Experimental offerings of visiting professors, experimental offerings of new courses, or one-time offerings of current topics.

**PHSX 292 - Independent Study. 1-9 Credits.**

(R-9) Course material appropriate to the needs and objectives of the individual student.

**PHSX 301 - Intro to Theoretical Physics. 3 Credits.**

Offered spring. Prereq., PHSX 207N or PHSX 217N. Prereq. or coreq., M 273 and PHSX 208N or PHSX 218N. Selected topics from applied linear algebra, ordinary and partial differential equations, vector analysis, complex variables, and Fourier series. Applications to classical mechanics, electromagnetism, and quantum mechanics.

**PHSX 311 - Oscillations and Waves. 2 Credits.**

Offered autumn. Prereq., PHSX 217N/PHSX 218N or PHSX 207N/PHSX 208N. Prereq. or coreq., M 273. Detailed study of oscillations and waves at the intermediate level, to develop physical intuition and mathematical skills needed for analyzing a wide range of periodic phenomena encountered in physics.

**PHSX 320 - Classical Mechanics. 3 Credits.**

Offered spring. Prereq. or coreq., PHSX 301. Topics in classical mechanics at the intermediate level, emphasizing Lagrangian and Hamiltonian dynamics.

**PHSX 323 - Intermediate Physics Lab. 3 Credits.**

Offered spring. Prereq., PHSX 217N/PHSX 218N or PHSX 207N/PHSX 208N, and PHSX 311. Laboratory course in the application of analog and digital electronics to experimental physics, with additional emphasis on data analysis techniques.

**PHSX 327 - Optics. 3 Credits.**

Offered spring. Prereq., PHSX 311. Intermediate level study of light and optics, including geometrical optics, wave optics, optical instruments, coherence, polarization, and special topics.

**PHSX 330 - Communicating Physics. 3 Credits.**

Offered spring even-numbered years. Prereq., WRIT 101 and PHSX 207N/PHSX 208N or PHSX 217N/PHSX 218N. Oral and written communication skills in physics, to include teaching high school and college physics, presenting seminars, and writing technical and non-technical physics articles.

Gen Ed Attributes: Writing in the Disciplines

**PHSX 333 - Computational Physics. 3 Credits.**

Offered spring odd-numbered years. Prereq., PHSX 217N/PHSX 218N or PHSX 207N/PHSX 208N. Solution of advanced problems in physics using computational methods. Students will learn a variety of numerical methods, including FORTRAN programming techniques.

**PHSX 343 - Modern Physics. 3 Credits.**

Offered autumn. Prereq., PHSX 217N/PHSX 218N or PHSX 207N/PHSX 208N. Prereq. or coreq., M 273. Includes historical background for development of modern physics and an introduction to quantum mechanics, atomic and nuclear physics. Credit not allowed for graduate degree in physics.

**PHSX 389 - Research Initiation. 1 Credit.**

Restricted to students majoring in Physics with at least junior standing. This one-credit seminar course is intended as an introduction to independent research for junior-level physics majors. This course will connect student researchers with faculty mentors and help prepare the students for PHSX 499 Senior Capstone Seminar. Offered as CR/NCR only.

**PHSX 390 - Undergraduate Research. 1-6 Credits.**

(R-6) Offered intermittently. Directed individual research and study appropriate to the background and objectives of the student.

**PHSX 391 - Special Topics. 1-12 Credits.**

(R-12) Offered intermittently. Experimental offerings of visiting professors, experimental offerings of new courses, or one-time offerings of current topics.

**PHSX 392 - Independent Study. 1-6 Credits.**

(R-6) Offered intermittently. Independent research in topics of current interest in physics.

**PHSX 398 - Internship. 1-6 Credits.**

(R-6) Offered intermittently. Extended classroom experience that provides practical application of classroom learning during placements off campus. Prior approval must be obtained from the faculty supervisor. A maximum of 6 credits of Internship (198, 298, 398, 498) may count toward graduation.

**PHSX 423 - Electricity & Magnetism I. 3 Credits.**

Offered autumn. Prereq., PHSX 301. Electricity and magnetism at the intermediate level. Level: Undergraduate-Graduate

**PHSX 425 - Electricity & Magnetism II. 3 Credits.**

Offered spring. Prereq., PHSX 423. Continuation of PHSX 423. Electricity and magnetism at the intermediate level. Level: Undergraduate-Graduate

**PHSX 444 - Advanced Physics Lab. 3 Credits.**

Offered autumn. Prereq., PHSX 461. PHSX 323 is recommended but not required. Advanced experiments in classical and modern physics, including optics, spectroscopy, laser science, atomic, nuclear, and particle physics, Data analysis techniques for experimental scientists. Recommended for students entering graduate school in any experimental science. Level: Undergraduate

**PHSX 446 - Thermodynamics & Statistical Mechanics. 3 Credits.**

Offered spring even-numbered years. Prereq., PHSX 343. Topics in thermodynamics and statistical mechanics. Level: Undergraduate-Graduate

**PHSX 451 - Elementary Particle Physics. 3 Credits.**

Offered alternate odd years. Prereq., PHSX 301 and PHSX 343. This course will provide a sound introduction to the Standard Model of particle physics introducing students to the fundamental particles, fundamental forces, and the Feynman calculus. Level: Undergraduate

**PHSX 456 - General Relativity. 3 Credits.**

Offered intermittently. Prereq., PHSX 141N or PHSX 343 and M 221 or PHSX 301. An introduction to Einstein's gravity: the theory of general relativity. Students will be introduced to the concept of gravity as a manifestation of the curvature of spacetime. The course includes development of tensor calculus and the formulation of the Einstein equation with applications to black holes, gravitational lensing, cosmology, and gravitational waves. Level: Undergraduate

**PHSX 461 - Quantum Mechanics I. 3 Credits.**

Offered autumn. Prereq., PHSX 311 and PHSX 343. Prereq. or coreq., M 221. Introduction to quantum mechanics. Topics include Schrodinger equation, piecewise constant potential, harmonic oscillator, hydrogen atom, angular momentum theory, electron spin. Level: Undergraduate-Graduate

**PHSX 462 - Quantum Mechanics II. 3 Credits.**

Offered spring. Prereq., PHSX 461. Advanced topics in quantum mechanics including linear vector spaces and Dirac notation, quantum dynamics, time-dependent perturbation theory, and scattering theory. Level: Undergraduate-Graduate

**PHSX 490 - Undergraduate Research. 1-6 Credits.**

(R-6) Offered intermittently. Directed individual research and study appropriate to the background and objectives of the student. Level: Undergraduate

**PHSX 491 - Special Topics. 3 Credits.**

(R-6) Offered intermittently. Studies of a topic in advanced modern physics. The topic chosen will vary according to instructor. Level: Undergraduate-Graduate

**PHSX 492 - Independent Study. 1-9 Credits.**

(R-9) Offered intermittently. Course material appropriate to the needs and objectives of the individual student. Level: Undergraduate

**PHSX 499 - Senior Capstone Seminar. 1 Credit.**

Offered autumn. Restricted to students majoring in Physics with at least junior standing. Students will present a seminar on research performed prior to or during their senior year. Level: Undergraduate

**PHSX 590 - Research. 1-6 Credits.**

(R-9) Offered intermittently. Research in selected physics topics. Level: Graduate

**PHSX 591 - Special Topics. 1-9 Credits.**

(R-24) Offered intermittently. Experimental offerings of visiting professors, experimental offerings of new courses, or one-time offerings of current topics. Level: Graduate

**PHSX 598 - Internship. 1-9 Credits.**

(R-9) Offered intermittently. Extended classroom experience that provides practical application of classroom learning during placements off campus. Prior approval must be obtained from the faculty supervisor. Level: Graduate

## Political Science (PSCI)

**PSCI 191 - Special Topics. 1-6 Credits.**

(R-6) Offered intermittently. Experimental offerings of visiting professors, experimental offerings of new courses, or one-time offerings of current topics.

**PSCI 192 - Independent Study. 1-6 Credits.**

(R-6) Offered intermittently. Course material appropriate to the needs and objectives of the individual student.

**PSCI 210S - Intro to American Government. 3 Credits.**

Offered autumn and spring. Constitutional principles, structures, and the political processes of the national government.

Gen Ed Attributes: Social Sciences, Democracy and Citizenship

**PSCI 220S - Intro to Comparative Government. 3 Credits.**

Offered every term. Introduction to the basic political concepts, themes, values and dilemmas as they apply to the world's diverse societies and cultures.

Gen Ed Attributes: Social Sciences, Democracy and Citizenship

**PSCI 230X - Intro to International Relations. 3 Credits.**

Offered spring. Review of the evolution of the nation-state system and survey of contemporary international actors, issues and forces for stability and change.

Gen Ed Attributes: Cultural & International Diversity

**PSCI 250E - Intro to Political Theory. 3 Credits.**

Offered spring. Analysis of the various attempts (from Plato to Marx) to explain, instruct, and justify the distribution of political power in society. Emphasis is placed upon those theories whose primary concern is to define the nature of the "good" society.

Gen Ed Attributes: Ethical & Human Values

**PSCI 311 - Revolution & Reform in Modern China. 3 Credits.**

Offered intermittently. Restricted to students with at least junior standing. Survey of modern Chinese history 1799-present. Emphasizes institutional transformation of the state, social movements, and the imperial legacy. Blends social-scientific and historical approaches to China's periodic reforms and revolutions. Essential for further study of modern Chinese politics.

**PSCI 320 - Experimental Offering: Comparative Politics. 1-6 Credits.**

(R-6) Offered intermittently. Restricted to students with at least junior standing. Experimental or one-time offerings in the subfield of comparative politics.

**PSCI 322 - Politics of Europe. 3 Credits.**

Offered intermittently. Restricted to students with at least junior standing. Comparative analysis of parliamentary forms of government and politics with emphasis on Great Britain, France, and Germany.

**PSCI 325 - Politics of Latin America. 3 Credits.**

Offered intermittently. Restricted to students with at least junior standing. Latin American politics from both historical and contemporary perspectives.

**PSCI 326 - Politics of Africa. 3 Credits.**

Offered intermittently. Restricted to students with at least junior standing. Development of the political systems of Africa. Analysis of the interaction between African and Western social, political, and economic forces. Consideration of African political thought.

**PSCI 327 - Politics of Mexico. 3 Credits.**

Offered intermittently. Restricted to students with at least junior standing. A review of contemporary politics of Mexico from the Revolution to the present.

**PSCI 328 - Politics of China. 3 Credits.**

Offered intermittently. Restricted to students with at least junior standing. Institutions and political development in China.

**PSCI 330 - Experimental Offering: International Relations. 1-6 Credits.**

(R-6) Offered intermittently. Restricted to students with at least junior standing. Experimental or one-time offerings in the subfield of international relations.

**PSCI 332 - Global Environmental Politics. 3 Credits.**

Offered spring. Prereq., PSCI 230X or 220S. Restricted to students with at least junior standing. This course focuses on the unique set of collective action problems faced by global actors in the governance of the environment and the institutions they use to overcome those problems. Themes include the tragedy of the commons, climate change, and environmental security.

**PSCI 334 - International Security. 3 Credits.**

Offered fall. Prereq., PSCI 230X. Restricted to students with at least junior standing. This course explores the meaning, sources, and future of human, national, and international security. We will consider a range of historical and contemporary threats (interstate war, civil war, terrorism, crime, natural disaster, human accident, disease, and deprivation), assess the vulnerability of individuals and states to each threat, and evaluate national and international strategies to reduce them.

**PSCI 335 - American Foreign Policy. 3 Credits.**

Offered intermittently. Prereq., PSCI 230X. Restricted to students with at least junior standing. American diplomatic, economic and defense policies since World War II and their significance in international politics.

**PSCI 336 - European Union. 3 Credits.**

Offered spring intermittently. Restricted to students with at least junior standing. Historical and contemporary analysis of political and economic integration in Europe with a focus on the political system of the European Union.

**PSCI 337 - Model United Nations. 3 Credits.**

Offered autumn. Restricted to students with at least sophomore standing. History and structure of the UN. Contemporary global problems, and the UN's role in addressing them. Class has both active learning and service learning dimensions. Students plan, organize and run the annual Montana Model UN high school conference.

**PSCI 340 - Experimental Offering: American Government. 1-6 Credits.**

(R-6) Offered intermittently. Restricted to students with at least junior standing. Experimental or one-time offerings in the subfield of American government.

**PSCI 342 - Media, Public Opinion, Polling. 3 Credits.**

Offered intermittently. Prereq., PSCI 210S. Restricted to students with at least junior standing. Study of the role played by mass media in shaping public opinion, policy agendas, and governmental institutions.

**PSCI 344 - State and Local Government. 3 Credits.**

Offered intermittently. Prereq., PSCI 210S. Restricted to students with at least junior standing. Analysis of American state and local government with emphasis on governmental organization, intergovernmental relations, local government powers, and self-government charters. Special attention to Montana.

**PSCI 345 - American Political System. 3 Credits.**

Offered intermittently. Restricted to students with at least junior standing. This course explores the theoretical ideas that informed the founding of the American political system, how that system developed over time, and the contemporary challenges facing American democracy and its national institutions. We will focus our attention on federalism, Congress, the Presidency, the Judiciary, and political parties.

**PSCI 346 - American Presidency. 3 Credits.**

Offered autumn. Prereq., PSCI 210S. The constitutional foundation and evolution of the executive branch, the structure of the office and executive functions and powers.

**PSCI 348 - US Multicultural Politics. 3 Credits.**

Offered intermittently. Restricted to students with at least junior standing. Examines the politics of diversity in the U.S., including national community, identity, citizenship, immigration, assimilation, and racial issues such as voting rights, affirmative action, segregation and integration, and public opinion.

**PSCI 349 - Montana Government and Politics. 3 Credits.**

Offered intermittently. Prereq., PSCI 210S. This course offers an overview of Montana politics and government, with a focus on the state's political history, constitutional structure, political institutions, campaigns and elections, and contemporary policy issues. Upon successful completion of this course, students should: 1) understand the origins and nature of Montana's constitutional system; 2) appreciate key moments in Montana political history and how they have influenced the state's contemporary political culture and public policy debates; 3) and have improved their research, writing, and oral presentation skills.

**PSCI 350 - Experimental Offering: Political Theory. 1-6 Credits.**

(R-6) Offered intermittently. Restricted to students with at least junior standing. Experimental or one-time offerings in the subfield of political theory.

**PSCI 352Y - American Political Thought. 3 Credits.**

Offered spring. Prereq., PSCI 250E. Restricted to students with at least junior standing. The study of representative political thinkers is used to illustrate the theme of American democracy as a multifaceted experiment with self-government.

Gen Ed Attributes: Democracy and Citizenship

**PSCI 354 - Contemporary Issues in Political Theory. 3 Credits.**

(R-6) Offered intermittently in autumn. Restricted to students with at least junior standing. Topics vary. Research and assessment of current political, legal, and social issues through the study of a representative text and related literature.

**PSCI 360 - Experimental Offering: Public Administration. 1-6 Credits.**

(R-6) Offered intermittently. Restricted to students with at least junior standing. Experimental or onetime offerings in the subfield of public administration or policy.

**PSCI 361 - Public Administration. 3 Credits.**

Offered intermittently. Prereq., PSCI 210S. Restricted to students with at least junior standing. Legal and institutional setting of the administrative system; dynamics of organization and processes of public management.

**PSCI 365 - Public Policy Issues and Analysis. 3 Credits.**

Offered intermittently. Restricted to students with at least junior standing. Examines a variety of public policy issues including economic, social welfare, health care, environmental and criminal justice policy. Emphasis is placed on substantive policies and policy analysis.

**PSCI 370 - Courts and Judicial Politics. 3 Credits.**

Offered autumn. Prereq., PSCI 210S. Restricted to students with at least junior standing. Introduction to American courts with emphasis on judicial policy making.

**PSCI 377 - Global Health Issues. 3 Credits.**

Offered spring. Treats current public-health challenges in industrialized and low-income countries, including chronic and infectious illnesses.

In comparative perspective, the course explores the individual, environmental, resource, and governance context of public-health policy, interventions, and outcomes and address questions of human rights and ethics, health equity and justice, regional problems and contributors, and the concerns of vulnerable populations along with possibilities for health advocacy.

**PSCI 381 - State Formation. 3 Credits.**

Offered intermittently. Prereq., PSCI 220S. Restricted to students with at least junior standing. This course examines the concept of the 'state' and evaluates explanations for the emergence and proliferation of this form of organization throughout the world. Questions: what is the 'state'? What is the relationship of the state to the rest of 'society'? How has the state affected or altered human behavior and belief? What are the political-economic institutions most associated with the 'state'? What is/has been the role of the state in promoting industrialization and economic development and how has the process of industrialization in turn affected the state?

**PSCI 391 - Special Topics. 1-9 Credits.**

(R-9) Offered intermittently. Experimental offerings of visiting professors, experimental offerings of new courses, or one-time offerings of current topics.

**PSCI 398 - Internship. 1-6 Credits.**

Offered every term. Restricted to students with at least sophomore standing. Extended classroom experience that provides practical application of classroom learning during placements off campus. Prior approval must be obtained from the faculty supervisor. A maximum of 6 credits of Internship (198, 298, 398, 498) may count toward graduation.

**PSCI 400 - Advanced Writing in Political Science. 1 Credit.**

(R-3) Offered autumn and spring. Restricted to students with at least junior standing. Must be taken with another upper-division political science course. Designed for political science students to satisfy their Writing in the Disciplines expectation for the major or for students desiring additional experience in writing. Level: Undergraduate  
Gen Ed Attributes: Writing in the Disciplines

**PSCI 420 - Experimental Offering: Comparative Politics. 1-9 Credits.**

(R-9) Offered intermittently. Restricted to students with at least junior standing. Experimental or one-time offerings in the subfield of comparative politics. Level: Undergraduate-Graduate

**PSCI 428 - Climate Policies: China & U.S.. 3 Credits.**

Offered spring. Restricted to students with at least junior standing. Explores historic, current, and future greenhouse-gas emissions of the United States and China, reasons why both are the two largest CO2 emitters, and prevailing national and subnational government policies and nongovernmental actions that affect emissions mitigation and adaptation. Level: Undergraduate-Graduate

**PSCI 430 - Experimental Offering: International Relations. 1-9 Credits.**

(R-9) Offered intermittently. Restricted to students with at least junior standing. Experimental or one-time offerings in the subfield of international relations. Level: Undergraduate-Graduate

**PSCI 431 - Politics of Global Migration. 3 Credits.**

Offered intermittently. Restricted to students with at least junior standing. Explores of the elective and forced migration of peoples within countries and across national boundaries. Geographical coverage includes Asia, North America, Africa, and Europe. Attention to policy, development, health, and gender issues surrounding economic and political migration. Level: Undergraduate-Graduate

**PSCI 433 - International Law & Organization. 3 Credits.**

Offered fall in odd-numbered years. Prereq., PSCI 230X. Restricted to students with at least junior standing. This course is an introduction to classical principles and contemporary issues of the law of nations and the organizations created to facilitate international cooperation. Level: Undergraduate-Graduate

**PSCI 440 - Experimental Offering: American Government. 1-9 Credits.**

(R-9) Offered intermittently. Restricted to students with at least junior standing. Experimental or one-time offerings in the subfield of American government. Level: Undergraduate-Graduate

**PSCI 443 - Politics of Social Movements. 3 Credits.**

Offered spring. Restricted to students with at least junior standing. The role of social movements in shaping the politics of power, reflected in public policy, electoral politics, relations of class, race, and gender, and people's understanding of the world and their place in it. Level: Undergraduate-Graduate

**PSCI 444 - American Political Participation. 3 Credits.**

Offered intermittently. Prereq., PSCI 210S. Restricted to students with at least junior standing. Examines of the individual and institutional factors affecting voter turnout, the influences on voter decision making, and non-electoral forms of participation in the United States. Level: Undergraduate-Graduate

**PSCI 445 - Political Psychology. 3 Credits.**

Offered intermittently. Restricted to students with at least junior standing. Applies psychological theories such as personality, emotion, cognition, and social influence to political attitudes and actions, including political opinion formation, conformity, prejudice, genocide, and political leadership. Level: Undergraduate-Graduate

**PSCI 448 - Health Care Policy. 3 Credits.**

Offered intermittently. Restricted to students with at least junior standing. Focuses on sociopolitical environment influencing health policy in the United States including health politics and policy development, political structure and process, health care financing, public opinion and special interest groups, political leadership, policy reform and global health. Level: Undergraduate-Graduate

**PSCI 450 - Experimental Offering: Political Theory. 1-9 Credits.**

(R-9) Offered intermittently. Restricted to students with at least junior standing. Experimental or one-time offerings in the subfield of political theory. Level: Undergraduate-Graduate

**PSCI 452 - Utopianism and its Critics. 3 Credits.**

Offered intermittently. Restricted to students with at least junior standing. Examination of classic and contemporary utopias, from Plato's Republic to Barbara Goodwin's "Justice by Lottery" as well as their critics. Topics covered in this seminar include art and society, social justice, economic and social equality, law and punishment, family relations, work, and communitarian values. Level: Undergraduate-Graduate



**PSCI 453 - Modern Political Theory. 3 Credits.**

Offered autumn. Prereq., PSCI 250E. Restricted to students with at least junior standing. Analysis of Hobbes, Locke, Rousseau, Burke, James and John Stuart Mill, Marx and Lenin with regard to their "modern" views of the purpose(s) of political inquiry, the nature of citizenship, public law, and popular sovereignty. Particular attention to contemporary implications of their ideas. Co-convenes with PSCI 553. Level: Undergraduate

**PSCI 457 - Classical & Medieval Political Philosophy. 3 Credits.**

Offered autumn. Restricted to students with at least junior standing. The classical western tradition, beginning with the ancient Greeks, spanning the Christian era, and ending with Machiavelli and the high Renaissance period. Examination of the political ideas/values of these different times, exploring broad questions concerning human nature, the origins of the state, foundational legal theory, and the meaning of legitimate authority. Co-convenes with PSCI 557. Level: Undergraduate

**PSCI 460 - Experimental Offering: Public Administration. 1-9 Credits.**

(R-9) Offered intermittently. Restricted to students with at least junior standing. Experimental or onetime offerings in the subfield of public administration or policy. Level: Undergraduate-Graduate

**PSCI 463 - Development Administration. 3 Credits.**

Offered autumn. Restricted to students with at least junior standing. Functions and processes of public administration in the Third World. Focus on alleviating poverty and underdevelopment. Includes project design and development planning activities. Level: Undergraduate-Graduate

**PSCI 469 - Ethics and Public Policy. 3 Credits.**

Offered intermittently spring. Restricted to students with at least junior standing. Focuses on the ethical challenges faced by public servants in government agencies. Level: Undergraduate-Graduate

**PSCI 471 - American Constitutional Law. 3 Credits.**

Offered autumn. Restricted to students with at least junior standing. Survey of U.S. Supreme Court's interpretation of the U.S. Constitution's provisions on separation of powers, federalism, civil rights, and civil liberties. Level: Undergraduate-Graduate

**PSCI 474 - Civil Rights. 3 Credits.**

Offered intermittently. Restricted to students with at least junior standing. Intensive analysis, discussion, and writing about key U.S. Supreme Court constitutional cases on expression, religion, privacy, criminal justice, and discrimination. Level: Undergraduate-Graduate

**PSCI 480 - Research Goals and Strategies. 3 Credits.**

Offered autumn. Restricted to students with at least junior standing. We explore the main methods used in political science research, focusing on research design, best research practices, and pitfalls in research. Students develop their own research design as the final course project. PSCI 480 can be counted as a Required Upper-Division Field Course in any of the five PSCI subfields (comparative government, international relations, political theory, public administration and public policy, or American government) if students write a reading analysis focused on methods in a particular subfield and complete a final research design paper in the same subfield. Co-convenes with PSCI 580. Level: Undergraduate

**PSCI 481 - Origins of Democracy and Authoritarianism. 3 Credits.**

Offered intermittently. Prereq., PSCI 220S. Restricted to students with at least junior standing. This course examines the meaning of the terms "democracy" and "authoritarianism" in a way that permits measurement and analysis, then seeks to explain conditions under which such regimes or political systems emerge. Level: Undergraduate-Graduate

**PSCI 482 - Politics of the World Economy. 3 Credits.**

Offered intermittently. Prereq., PSCI 220S or PSCI 230X. Restricted to students with at least junior standing. This course introduces concepts, tools, and problems in international and comparative political economy. In particular, it examines 'economic' relations among 'states' (these terms are in quotes because we will consider them in depth). Co-convenes with PSCI 582. Level: Undergraduate

**PSCI 491 - Special Topics. 1-3 Credits.**

(R-9) Offered intermittently. Restricted to students with at least junior standing. Experimental offerings of new courses, or one-time offerings of current topics. Level: Undergraduate-Graduate

**PSCI 492 - Independent Study. 1-6 Credits.**

(R-6) Offered every term. Course material appropriate to the needs and objectives of the individual student. Level: Undergraduate.

**PSCI 494 - Seminar. 1-6 Credits.**

(R-6) A review and discussion of current research. Topics vary. Level: Undergraduate-Graduate

**PSCI 498 - Internship. 1-6 Credits.**

Offered every term. Restricted to students with at least sophomore standing. Extended classroom experience that provides practical application of classroom learning during placements off campus. Prior approval must be obtained from the faculty supervisor. A maximum of 6 credits of Internship (198, 298, 398, 498) may count toward graduation. Level: Undergraduate.

**PSCI 520 - Comparative Government. 3 Credits.**

Offered spring. Concentrated reading and examination of selected subject areas in the field of comparative government. Level: Graduate

**PSCI 521 - Globalization. 3 Credits.**

Offered intermittently. Critical examination of contemporary globalization topics from a number of theoretical and political perspectives. Topics include but are not limited to international political economy, security, social movements, democratization, international development, climate change, immigration, and global governance. Level: Graduate

**PSCI 524 - Management and Policy Skills. 3 Credits.**

Offered spring. Focus on developing the skills required of managers in nonprofit and government organizations, such as competency in self-assessment, oral and written presentations, managing stress, communicating supportively, motivating, managing conflict, empowering and delegating, succeeding in multicultural contexts, and participating in interviews. Level: Graduate

**PSCI 530 - International Relations. 3 Credits.**

Offered fall in even-numbered years. Concentrated reading and examination of selected subject areas in the field of international relations. Level: Graduate

**PSCI 540 - American Government. 3 Credits.**

Offered spring. Concentrated reading and examination of selected subject areas in the field of American government. Level: Graduate

**PSCI 553 - Modern Political Theory. 3 Credits.**

Offered autumn. Covers political thinkers from the 16th c., beginning with Thomas Hobbes, to the early 20th century, ending with Marx. Graduate students will consider a fundamental question: what is the purpose of political inquiry? A fundamental question precisely because what people take to be the purpose of political theory determines what they study, who they study, and how they study it. Co-convenes with PSCI 453. Level: Graduate



**PSCI 557 - Political Science Theory Graduate Seminar. 3 Credits.**

Offered autumn semester. This course examines canonical "classical" political thinkers from Plato to Machiavelli. Graduate students will consider a fundamental question: what is the purpose of political inquiry? A fundamental question precisely because what people take to be the purpose of political theory determines what they study, who they study, and how they study it. Co-convenes with PSCI 457. Level: Graduate

**PSCI 580 - Research Goals and Strategies Graduate Seminar. 3 Credits.**

Offered autumn. This course explores the main methods used in political science research, focusing on research design, best research practices, components of effective research design, and pitfalls in research. Students develop their own research design as the final course project. Co-convenes with PSCI 480. Level: Graduate

**PSCI 582 - Politics of the World Economy. 3 Credits.**

Offered intermittently. This introduces concepts, tools, and problems in international and comparative political economy. In Particular, it examines 'economic' relations among 'states' (the terms are in quotes because we will consider them in depth). Co-convened with PSCI 482. Level: Graduate

**PSCI 590 - Research. 1-6 Credits.**

(R-12) Directed individual research and study appropriate to the background and objectives of the student. Level: Graduate

**PSCI 591 - Special Topics. 1-9 Credits.**

(R-24) Offered intermittently. Experimental offerings of visiting professors, experimental offerings of new courses, or one-time offerings of current topics. Level: Graduate

**PSCI 592 - Independent Study. 1-6 Credits.**

(R-12) Offered every term. Course material appropriate to the needs and objectives of the individual student. Level: Graduate

**PSCI 594 - Seminar. 1-9 Credits.**

(R-9) Offered intermittently. A review and discussion of current research. Topics vary. Level: Graduate

**PSCI 598 - Internship. 1-6 Credits.**

(R-6) Offered every term. Extended classroom experience that provides practical application of classroom learning during placements off campus. Prior approval must be obtained from the faculty supervisor. Level: Graduate

**PSCI 599 - Thesis. 1-6 Credits.**

(R-6) Offered every term. Preparation of a thesis or manuscript based on research for presentation and/or publication. Level: Graduate

## Psychology (PSYX)

**PSYX 100S - Intro to Psychology. 3 Credits.**

Offered every term. Offered on Mountain Campus and at Missoula College. Introduction to the scientific study of behavior in humans and other animals.  
Gen Ed Attributes: Social Sciences

**PSYX 105 - Careers in Psychology. 1 Credit.**

Offered intermittently. Exploration of the various careers available in the general area of mental health research and practice.

**PSYX 120 - Introduction to Psychological Research Methods. 3 Credits.**

Offered every term. Prereq or Coreq., PSYX 100S. Experimental and other quantitative methods employed in the scientific study of behavior.

**PSYX 191 - Special Topics. 1-6 Credits.**

(R-6) Offered intermittently. Experimental offerings of visiting professors, experimental offerings of new courses, or one time offerings of current topics.

**PSYX 192 - Independent Study. 1-6 Credits.**

(R-6) Offered intermittently. Course material appropriate to the needs and objectives of the individual student.

**PSYX 195 - Practicum. 1-6 Credits.**

(R-6) Supervised, practical experience in a professional setting relevant to the student's field of study.

**PSYX 222 - Psychological Statistics. 3 Credits.**

Offered every term. Prereq., PSYX 120 and M 115 or higher. Application of statistical techniques to psychological data.

**PSYX 230 - Developmental Psychology. 3 Credits.**

Offered every term. Offered at Missoula College. Prereq., PSYX 100S. The study of human physical, cognitive and psychosocial development throughout the life span. Content covers major theories, the influence of genetics, and the environment from a chronological aspect. Appropriate for Social Work, Nursing, Addiction Studies, Education, and Psychology.

**PSYX 233 - Fundamentals of Psychology of Aging. 3 Credits.**

Offered intermittently. An overview of theories and research findings in the psychology of adulthood and aging.

**PSYX 238 - Adolescent Psychology. 3 Credits.**

Offered spring online. Offered at Missoula College. Prereq., PSYX 100S or PSYX 230. This course is designed to provide an introduction to the physical, social, emotional, and cognitive developmental changes that occur during adolescence, as well as their relationships and cultural influences. Appropriate for students in Addiction Studies, Psychology, Social Work, Education, and other disciplines where a study of the adolescent is desired.

**PSYX 240 - Fundamentals of Psychological Disorders. 3 Credits.**

Offered face-to-face in autumn and online in spring. Offered at Missoula College. Prereq., PSYX 100S. This course provides a broad introduction to psychological disorders, which includes defining "disorder," examining the history of psychological disorders, identifying how this field relates to other disciplines in psychology, exploring major research methods used in psychological disorders, discussing various mental illnesses and their potential causes and possible treatments, and applying major research findings to practical problems.

**PSYX 250N - Fundamentals of Biological Psychology. 3 Credits.**

Offered every term. Prereq., PSYX 100S. Introduction to the study of how psychological processes are supported by biological processes. Mechanisms across levels of analysis, from cells to individuals, are addressed.

Gen Ed Attributes: Natural Science

**PSYX 270 - Fundamentals of Psychology of Learning. 3 Credits.**

Offered intermittently. Prereq., PSYX 100S. Basic theory and research on the nature of animal learning and behavior.

**PSYX 280 - Fundamentals of Memory and Cognition. 3 Credits.**

Offered intermittently. Prereq., PSYX 100S. The acquisition and uses of knowledge. An examination of research and theories of human learning, memory, and thinking.

**PSYX 290 - Supervised Research. 1-6 Credits.**

(R-6) Offered every term. Independent research under the direction of a faculty member.

**PSYX 291 - Special Topics. 1-6 Credits.**

(R-6) Offered intermittently. Experimental offerings of visiting professors, experimental offerings of new courses, or one-time offerings of current topics.

**PSYX 292 - Independent Study. 1-6 Credits.**

(R-6) Offered every term. Course material appropriate to the needs and objectives of the individual student.

**PSYX 294 - Seminar/Workshop. 1 Credit.**

(R-3) A review and discussion of current research. Topics vary.

**PSYX 298 - Internship. 1-6 Credits.**

(R-6) Offered every term. Extended classroom experience that provides practical application of classroom learning during placements off campus. Prior approval must be obtained from the faculty supervisor. A maximum of 6 credits of Internship (198, 298, 398, 498) may count toward graduation.

**PSYX 302 - Sexual Orientation and Gender Diversity in Psychology: LGBTQ+ People and Health. 3 Credits.**

This course is an overview of the discipline of psychology as it relates to LGBTQ+ individuals.

**PSYX 320 - Advanced Psychological Research Methods. 3 Credits.**

Offered every term. Prereq., WRIT 101 and PSYX 222 or STAT 216. An appreciation of the experimental approach to the scientific study of behavior through student-conducted experiments.

Gen Ed Attributes: Writing in the Disciplines

**PSYX 330 - Child Development. 3 Credits.**

Offered every term. Prereq., PSYX 100S. The study of human biological, cognitive, and social-emotional development from the prenatal period through adolescence. Content covers major theories, research methods, and empirical findings fundamental to Developmental Psychology.

**PSYX 335 - Psychology of Gender. 3 Credits.**

Prereq., PSYX 100S. This course takes an intersectional and evidence-based approach to understand how gender shapes our lives and well-being. We will cover major theoretical approaches and empirical findings of the psychology of gender. Using research findings, we will analyze and critique gender roles, gender identity, and gender socialization. The psychological, cultural, and health implications of gender will be emphasized along with an examination of potential sources of gender development (biological, social, etc.). Sample topics include mental health, gender diversity, sexuality, body image and disordered eating, violence, parenthood, and the workplace.

**PSYX 340 - Psychological Disorders. 3 Credits.**

Offered every term. Prereq., PSYX 100S. Gain a better understanding of, and appreciation for, variations in human behavior as well as major classifications of psychological disorders and different diagnoses. This course explores the historical development of classification systems for psychological disorders. Students will develop an understanding of the current diagnostic system, learn basic treatment approaches to different disorders, and think critically about diagnoses and treatments. Current controversies in the field of psychological disorders will also be explored.

**PSYX 345 - Child & Adolescent Psych Disorders. 3 Credits.**

Offered intermittently. Prereq., PSYX 100S. Study of causes, characteristics, assessment and treatment of emotional, social and intellectual disorders. The age span studied will range from infancy through adolescence.

**PSYX 348 - Trauma and Resilience. 3 Credits.**

Offered fall. Provides a comprehensive exploration of psychological trauma and resilience. Explores current and historical conceptualizations of traumatic stress, impact of trauma on individuals and systems, posttraumatic growth and resiliency, and principles of trauma informed care.

**PSYX 352 - Comparative Psychology. 3 Credits.**

Offered autumn. Prereq., PSYX 250N or PSYX 270. Advanced evaluation and analysis of animal behavior through the synthesis of theory, research, and methods found in comparative psychology, behavioral biology, ethology, and sociobiology.

**PSYX 356 - Human Neuropsychology. 3 Credits.**

Offered spring. Prereq., PSYX 250N. Study of the organization of the nervous system, functional neuroanatomy, neuropathology, neurological disorders, behavioral neurology, and clinical neuropsychology.

**PSYX 360 - Social Psychology. 3 Credits.**

Offered every term. Prereq., PSYX 100S. Individual behavior as a function of interpersonal interaction.

**PSYX 362 - Multicultural Psychology. 3 Credits.**

Offered intermittently. Prereq., PSYX 100S. Current theories and research on culture, race, and ethnicity, and how the sociocultural context influences psychological processes.

**PSYX 376 - Principles of Cognitive Behavioral Modification. 3 Credits.**

Offered intermittently. Prereq., PSYX 270S. Study of basic principles, assumptions, methodology and applications of behavior modification. Discussion of current literature relevant to behavioral assessment and treatment of major psychological disorders.

**PSYX 378 - Intro to Clinical Psychology. 3 Credits.**

Offered intermittently. Prereq., PSYX 340. This course offers a closer look into clinical psychology as both a science and a profession and the integration of both. Learn what distinguishes clinical psychology from other mental health professions and understand the differences between treatment approaches and theoretical orientations. Students will learn basic aspects of professional roles and relationships in helping professions as well as practice relevant skills in thinking about, and discussing, clinical situations.

**PSYX 382 - Forensic Psychology. 3 Credits.**

Offered spring. Prereq., PSYX 100S. This course examines the many areas of forensic psychology, or the application of psychological concepts and theories to the legal system. This interface will be explored with an emphasis on empirical research findings from cognitive, social, experimental, and clinical psychology. Topics covered will include the variety of roles that psychologists play in the criminal justice system; the identification and evaluation of criminal suspects; the accuracy of eyewitness memory; the process of jury selection and decision-making; mental illness, competency to stand trial, and the insanity defense; criminal sentencing; and offender rehabilitation.

**PSYX 383 - Health Psychology. 3 Credits.**

Offered intermittently. Prereq., PSYX 100S. This course will provide an overview of the growing field of health psychology, with particular attention to the biological, psychological, and social determinants of health. The course will also provide overviews of major illnesses for which psychologists can and do play a major role and will examine the tools and techniques that clinical health psychologists employ in medical settings.

**PSYX 385 - Psychology of Personality. 3 Credits.**

Offered intermittently. Prereq., PSYX 100S. Introduction to theories and research in personality. Intensive survey of theoretical concepts and a detailed examination of experimental methods and experiments in the field of personality.

**PSYX 390 - Advanced Supervised Research. 1-3 Credits.**

(R-3) Offered every term. Independent research under the direction of a faculty member.

**PSYX 391 - Special Topics. 1-6 Credits.**

(R-6) Offered intermittently. Experimental offerings of visiting professors, experimental offerings of new courses, or one-time offerings of current topics.

**PSYX 392 - Independent Study. 1-3 Credits.**

(R-3) Offered every term. Course material appropriate to the needs and objectives of the individual student.

**PSYX 398 - Internship. 1-3 Credits.**

(R-3) Offered every term. Extended classroom experience that provides practical application of classroom learning during placements off campus. Prior approval must be obtained from the faculty supervisor. A maximum of 6 credits of Internship (198, 298, 398, 498) may count toward graduation.

**PSYX 400 - History & System in Psychology. 3 Credits.**

Offered intermittently. Prereq., WRIT 101. Origin and development of basic concepts and methods in scientific psychology. Level: Undergraduate. Co-convenes with PSYX 500. Level: Undergraduate  
Gen Ed Attributes: Writing in the Disciplines

**PSYX 430 - Counseling Theories in Context. 3 Credits.**

Offered autumn. Prereq., PSYX 100S. This course introduces students to the primary theories that constitute the intellectual foundation for common counseling and psychotherapy techniques, with a special focus on gender, interpersonal influence strategies and diversity issues. Level: Undergraduate-Graduate

**PSYX 491 - Special Topics. 1-6 Credits.**

(R-6) Offered intermittently. Experimental offerings of visiting professors, experimental offerings of new courses, or one-time offerings of current topics. Level: Undergraduate-Graduate

**PSYX 494 - Seminar/Workshop. 1-6 Credits.**

(R-6) Offered intermittently. A review and discussion of current research. Topics vary. Level: Undergraduate-Graduate

**PSYX 499 - Senior Thesis. 1-6 Credits.**

(R-6) Offered autumn and spring. Restricted to students with at least junior standing. Preparation of an undergraduate thesis or manuscript based on research for presentation and/or publication. Level: Undergraduate

**PSYX 500 - Advanced History & Systems in Psychology. 3 Credits.**

Offered intermittently. Origin and development of basic concepts and methods in scientific psychology. Co-convenes with PSYX 400. Level: Graduate

**PSYX 501 - Teaching of Psychology. 3 Credits.**

Offered autumn. Exploration and practice of effective teaching techniques. Level: Graduate

**PSYX 511 - Professional Issues. 1 Credit.**

Offered autumn. Introduction to the professional role and skills in the clinical psychology field. Level: Graduate

**PSYX 512 - Field Placement-Clinical. 1-12 Credits.**

(R-12) Offered every term. Supervised assessment and intervention experience in applied clinical settings. Level: Graduate

**PSYX 520 - Advanced Psychological Statistics I. 3 Credits.**

Offered autumn. Undergraduate statistics recommended. Introduction to descriptive and inferential statistics, probability distributions, null hypothesis significance testing, one and two sample techniques, analysis of variance and the general linear model. Level: Graduate

**PSYX 521 - Advanced Psychological Statistics II. 4 Credits.**

Offered spring. Prereq., PSYX 520. Requires graduate standing in Psychology. Multiple comparisons among means, factorial ANOVA, random effects and mixed models, correlation, simple and multiple regression, analysis of covariance. Level: Graduate

**PSYX 522 - Multivariate Statistics. 3 Credits.**

Offered autumn. Prereq., PSYX 520 and PSYX 521. Requires graduate standing in Psychology. Introduction to matrix algebra, multivariate analysis of variance, multivariate analysis of covariance, simple slopes in multiple regression, discriminant analysis, canonical correlation, principal components analysis, factor analysis, cluster analysis. Level: Graduate

**PSYX 523 - Research Design. 3 Credits.**

Offered spring. Requires graduate standing in Psychology. The examination and application of the principles and methods of experimental and quasi-experimental research design in psychology. Level: Graduate

**PSYX 524 - Tests & Measurement. 3 Credits.**

Offered autumn. Requires graduate standing in Psychology or Education. Introduction to measurement emphasizing correspondence between research and practice. Provides a theoretical and practical basis for evaluating and using measurement data. Level: Graduate

**PSYX 525 - Psychological Evaluation I. 3 Credits.**

Offered autumn. Restricted to students with graduate standing in clinical or school psychology. Undergraduate statistics course recommended. Introduction to the study of how psychological processes are supported by biological processes. Mechanisms across levels of analysis, from cells to individuals, are addressed. Individual tests of aptitudes and intellectual abilities; psychometric considerations in clinical assessment; objective personality assessment. Level: Graduate

**PSYX 526 - Psychological Evaluation II: Objective Approaches and Applications. 3 Credits.**

Offered spring. Requires graduate standing in Psychology. Objective methods in psychological assessment; psychological evaluation techniques in the clinical context. Level: Graduate

**PSYX 530 - Clinical and Diagnostic Interviewing. 3 Credits.**

Offered autumn. Requires graduate standing in Psychology or Counseling. Microcounseling skills development through interactive practice and feedback. Level: Graduate

**PSYX 531 - Principles of Psychological Intervention. 3 Credits.**

Offered autumn. Requires graduate standing in clinical Psychology. The philosophical and scientific bases of major systems of psychotherapy are reviewed. Psychotherapy research methods, issues, and findings are introduced. Level: Graduate

**PSYX 532 - Advanced Psychopathology. 3 Credits.**

Offered autumn. Requires graduate standing in Psychology. Symptoms, etiology, diagnostic criteria and treatment of the major psychological disorders, with an emphasis on current research findings. Level: Graduate

**PSYX 534 - Applied Clinical Methods. 1-4 Credits.**

(R-24) Offered every term. Requires graduate standing in Psychology. Theoretical and applied work in a supervised clinical setting. Level: Graduate

**PSYX 535 - Child Interventions. 3 Credits.**

(R-12) Offered spring. Requires graduate standing in Psychology. Review of clinical research and methodology in youth mental health. Specific treatment interventions are explored for the practitioner and also may serve as a valuable base for engaging in psychological consultation with youth and families. Level: Graduate

**PSYX 536 - Advanced Child and Adolescent Psychopathology. 3 Credits.**

Offered spring. Requires graduate standing in Psychology. Advanced study of the characteristics, etiology, assessment, and treatment of the emotional, social, and intellectual problems covering the span from infancy through adolescence. DSM and Education Code criteria will be compared. Level: Graduate

**PSYX 537 - Child Assessment. 3 Credits.**

Offered every other even year autumn semester. Requires graduation standing in Psychology. Provides an intensive introduction to diagnostic, behavioral, and personality assessment of children and adolescents. Level: Graduate

**PSYX 540 - Advanced Development Psychology. 3 Credits.**

Offered spring. Requires graduate standing in Psychology. Undergraduate course in developmental psychology recommended. Psychological and behavioral development through the lifespan. Level: Graduate

**PSYX 545 - Field Placement Human Development. 1-6 Credits.**

(R-9) Offered autumn and spring. Prereq., PSYX 540. Requires graduate standing in Psychology. Individualized, applied experience working with and/or observing a particular population of interest, including children, adolescents, or older adults. Involves the completion of an independent project, which may comprise program assessment, research proposal development, etc. Level: Graduate

**PSYX 550 - Advanced Social Psychology. 3 Credits.**

Offered fall semester. Requires graduate standing in Psychology and consent of instructor. Theory and experiment in the analysis of individual behavior in relation to social stimuli. Level: Graduate

**PSYX 551 - Advanced Personality. 3 Credits.**

Offered autumn odd-numbered years autumn semester. Requires graduate standing in Psychology. Theory and research on human personality and behavior. Emphasis on issues and topics of historical and contemporary importance. Level: Graduate

**PSYX 555 - Advanced Social and Developmental Psychology. 3 Credits.**

Offered spring semester. Requires graduate standing in Psychology. An undergraduate course in developmental psychology is recommended. This course provides graduate-level knowledge of the disciplines of Social Psychology and Developmental Psychology. Students will gain knowledge of Social Psychology research and theory relevant to how humans think about, influence, and are influenced by other people, as well as theories and research relevant to the field of Developmental Psychology, including major theories, methodologies, principles, and topics in across the lifespan. Level: Graduate

**PSYX 560 - Advanced Learning & Cognition. 3 Credits.**

Offered even-numbered years spring semester. Requires graduate standing in Psychology. An undergraduate course in perception, cognition, or learning is recommended. A survey of principles, theories, and methods pertaining to how humans and animals learn and represent the world. Level: Graduate

**PSYX 565 - Advanced Cognition. 3 Credits.**

Offered odd-numbered years spring semester. Requires graduate standing in Psychology. An undergraduate course in perception, cognition, or learning is recommended. Examination of the acquisition of knowledge through perception and learning, the retention of knowledge, and the use of knowledge through thinking and reasoning. Level: Graduate

**PSYX 571 - Advanced Physiological Psychology. 3 Credits.**

Offered even-numbered years autumn semester. Requires graduate standing in Psychology. Brain mechanisms and behavior; electrophysiological correlates of behavior. Level: Graduate

**PSYX 580 - Professional School Psychology. 3 Credits.**

Offered autumn. Requires graduate standing in Psychology. The theory, role, and function of school psychology as a profession; includes historical precursors and fit with current systems of psychology. Level: Graduate

**PSYX 582 - Behavioral Assessment & Intervention. 3 Credits.**

Offered autumn. Requires graduate standing in Psychology. Covers Schoolwide Positive Behavior Supports in a three-tiered model. Introduces theoretical and practical applications of behavioral assessment and intervention. Students develop skills using behavioral observation, sampling and intervention design/implementation through supervised experience in applied settings. Level: Graduate

**PSYX 583 - Academic Assessment & Intervention. 3 Credits.**

Offered spring. Requires graduate standing in Psychology or Education. Using the problem-solving model, students develop skills in academic assessment and intervention to make educational decisions. Students develop assessment and intervention design/implementation through supervised experience in applied settings. Level: Graduate

**PSYX 587 - School Psychology Methods. 3 Credits.**

(R-18) Offered every term. Requires graduate standing in Psychology. Applied school psychology work in a supervised setting. Level: Graduate

**PSYX 588 - School Psychology Internship. 1-12 Credits.**

(R-12) Offered autumn and spring. Requires graduate standing in Psychology. Supervised work experience in the role and functions of school psychologists. Level: Graduate

**PSYX 590 - Research. 1-9 Credits.**

(R-9) Offered autumn and spring. Requires graduate standing in Psychology and consent of instructor. Directed individual research and study appropriate to the background and objectives of the student. Level: Graduate

**PSYX 591 - Special Topics. 1-9 Credits.**

(R-24) Offered intermittently. Requires graduate standing in Psychology. Experimental offerings of visiting professors, experimental offerings of new courses, or one-time offerings of current topics. Level: Graduate

**PSYX 592 - Independent Study. 1-9 Credits.**

(R-9) Offered autumn and spring. Requires graduate standing in Psychology. Course material appropriate to the needs and objectives of the individual student. Level: Graduate

**PSYX 594 - Seminar. 1-12 Credits.**

(R-12) Offered intermittently. Requires graduate standing in Psychology. A review and discussion of current research. Topics vary. Level: Graduate

**PSYX 599 - Thesis/Research Project. 1-9 Credits.**

(R-9) Offered autumn and spring. Requires graduate standing in Psychology. Preparation of a thesis or research project. Level: Graduate



**PSYX 604 - Psychological Intervention in Rural Integrated Behavioral Health. 3 Credits.**

Offered intermittently. Requires graduate standing in Psychology, Social Work, or Counselor Education. This course presents an overview of and experience with the future of mental and behavioral health care delivery. It describes and discusses Integrated Behavioral Health (IBH) in Primary Care; introduces the Patient Centered Medical Home model of primary care; provides practical introduction to a variety of behavioral health approaches & techniques; and, it addresses explicitly how to make IBH training relevant to rural Montana and Montana workforce needs – all through a mix of classroom and “lab” experiences.

**PSYX 625 - Clinical Assessment. 3 Credits.**

Offered autumn. Requires graduate standing Psychology. Students will conduct a variety of clinical assessments, including personality and neuropsychological testing. Students will gain experience with all phases of clinical assessment (e.g., interviewing, test administration, report writing, etc.) Level: Graduate

**PSYX 630 - Ethics, Professional & Cultural Issues. 3 Credits.**

Offered spring, occasionally shifted to autumn. Requires graduate standing in Psychology. Review of ethical principles and professional standards of psychologists. Analysis of the influence of cultural factors upon professional conduct. Level: Graduate

**PSYX 631 - Intervention. 3 Credits.**

(R-12) Offered every term. Review of clinical research and methodology. Specific treatment interventions are explored for the practitioner and also may serve as a valuable base for engaging in psychological consultation. Each offering will have a unique title. Level: Graduate

**PSYX 632 - Current Clinical Topics. 3 Credits.**

(R-12) Offered intermittently. Requires graduate standing in Psychology. Current topics in clinical psychology with reviews of theory, research, and methodology. Each offering will have a unique title. Level: Graduate

**PSYX 634 - Advanced Applications of Clinical Methods. 1-4 Credits.**

(R-6) Offered every term. Prereq., PSYX 534. Requires graduate standing in Psychology. Advanced clinical work in a supervised setting. Level: Graduate

**PSYX 638 - Clinical Psychology Internship. 1-3 Credits.**

(R-6) Offered every term. Prereq., proficiency in clinical techniques. Clinical internship offered by the psychology staff of a hospital, clinic or other approved agency in coordination with The University of Montana Clinical Psychology Program. Level: Graduate

**PSYX 680 - Consultation and Supervision. 3-4 Credits.**

Offered spring even-numbered years. Requires graduate standing in Psychology. Theoretical background and case conceptualization in academic and behavioral consultation and supervision and how this can be applied in school-based settings. Level: Graduate

**PSYX 690 - Advanced Research. 1-9 Credits.**

(R-9) Offered autumn and spring. Requires graduate standing in Psychology. Directed individual research and study appropriate to the background and objectives of the student. Level: Graduate

**PSYX 694 - Seminar. 1-12 Credits.**

(R-12) Offered intermittently. Requires graduate standing in Psychology. A review and discussion of current research. Topics vary. Level: Graduate

**PSYX 699 - Dissertation. 1-18 Credits.**

(R-18) Offered every term. Requires graduate standing in Psychology. Doctoral dissertation research activities. Level: Graduate

## Public Administration (PUAD)

**PUAD 501 - Public Administration. 3 Credits.**

Offered intermittently. Restricted to students in Department of Public Administration and Policy graduate programs. Advanced analysis of processes of public management and an examination of public administrators' involvement in policy making. Level: Graduate

**PUAD 503 - Policy Analysis. 3 Credits.**

Restricted to students in Department of Public Administration and Policy graduate programs. The role of public administrators in the policymaking process with emphasis on methods of policy analysis and program evaluation. Level: Graduate

**PUAD 504 - Organization Theory. 3 Credits.**

Offered intermittently. Restricted to students in Department of Public Administration and Policy graduate programs. Concepts and theories relevant to the administration of complex organizations, including administrative structure, behavior, process, and functions. Level: Graduate

**PUAD 505 - Budgeting & Finance. 3 Credits.**

Offered intermittently. Restricted to students in Department of Public Administration and Policy graduate programs. Seminar focusing on principles of public finance and analysis of budgeting as a primary tool of public sector management. Level: Graduate

**PUAD 506 - MPA Applied Research Methods. 3 Credits.**

Restricted to students in Department of Public Administration and Policy graduate programs. Covers applied research methods for analysis of the public sector.

**PUAD 507 - Program Evaluation. 3 Credits.**

Restricted to students in Department of Public Administration and Policy graduate programs. This course covers methods and techniques of program evaluation in the public sector. Level: Graduate

**PUAD 522 - Human Resource Management. 3 Credits.**

Offered intermittently. Restricted to students in Department of Public Administration and Policy graduate programs. Study of the essential elements of human resource management, including analysis and evaluation of work, and the selection, management, and evaluation of public employees. Level: Graduate

**PUAD 523 - Administrative Law. 3 Credits.**

Offered intermittently. The legal foundations of public administration with emphasis on legislative delegation, administrative rulemaking and adjudication, judicial review, and public participation. Level: Graduate

**PUAD 525 - Strategic Planning. 3 Credits.**

Offered intermittently. Focus on the means by which public and nonprofit agencies can carry out their missions effectively. Level: Graduate

**PUAD 526 - Issues in State Government. 3 Credits.**

Offered intermittently. Examination of the evolution and development of state governments since the founding period by focusing on the basic political institutions and a broad range of public policy issues that affect governing in the states. Level: Graduate

**PUAD 527 - Performance Measurement. 3 Credits.**

Offered intermittently. Focus on the process by which organizations routinely and systematically gather data to assess progress in achieving their goals. Level: Graduate

**PUAD 528 - Women, Policy, and Public Administration. 3 Credits.**

Offered every other year. Topics related to women, policy, and public administration. Level: Graduate



**PUAD 529 - Introduction to Nonprofit Organizations. 3 Credits.**

Offered intermittently. This course is one of the core courses required for MPA students completing the Nonprofit Administration Track. The course provides an introduction to nonprofit organizations and the nonprofit sector within which they are embedded. It investigates such topics as the nature of the nonprofit sector, the diverse kinds of nonprofits in existence, the phenomenon of charitable giving, philanthropy, and volunteering, and the legal framework that establishes nonprofit organizations and regulates their activities. This course is appropriate for graduate students from many disciplines in addition to MPA students due to the diverse nature of the nonprofit sector in fields such as environmental studies, communication studies, sociology, social work and law. Level: Graduate

**PUAD 531 - Introduction to Public Policy. 3 Credits.**

This course covers topics related to public policy and the policy cycle. Level: Graduate

**PUAD 547 - Legislation. 3 Credits.**

Offered intermittently. Focuses on the methods and issues involved in establishing effective working relationships between agencies and the legislative process. Level: Graduate

**PUAD 548 - Poverty Policy. 3 Credits.**

This course undertakes an in-depth study of poverty and inequality in the United States. By examining how poverty and inequality are measured, the causes and consequences of poverty and inequality, social stratification, discrimination, and structural "isms" (racism, sexism), and economic and institutional drivers of poverty and inequality, students will come away with an understanding of poverty as a "wicked problem." With no single remedy, public servants are tasked with analyzing the wicked problem of poverty through various policy frames and consider its social construction and historical roots. Level: Graduate

**PUAD 550 - Innovation in the Public Sector. 3 Credits.**

Restricted to students in Department of Public Administration and Policy graduate programs. Topics related to theories of innovation in the public sector. Level: Graduate

**PUAD 551 - Regulatory Process. 3 Credits.**

Prereq., Department of Public Administration and Policy majors.

**PUAD 561 - Ethics in Public Administration. 3 Credits.**

Offered intermittently. Restricted to students in Department of Public Administration and Policy graduate programs. Explores the role of ethics and integrity in public administration and the moral obligations of citizenship. Level: Graduate

**PUAD 591 - Special Topics. 1-9 Credits.**

(R-9) Offered intermittently. Experimental offerings of visiting professors, experimental offerings of new courses, or one-time offerings of current topics. Level: Graduate

**PUAD 592 - Independent Study. 1-6 Credits.**

(R-12) Offered every term. Course material appropriate to the needs and objectives of the individual student. Level: Graduate

**PUAD 598 - Internship. 1-6 Credits.**

(R-6) Offered every term. Restricted to students in Department of Public Administration and Policy graduate programs. Extended classroom experience that provides practical application of classroom learning during placements off campus. Prior approval must be obtained from the faculty supervisor. Level: Graduate

## Public Health (PUBH)

**PUBH 101S - Introduction to Public Health. 3 Credits.**

This course will serve as an overview of the discipline and practice of public health. This will include the history of public health, tools and techniques used in the field, a population perspective, and an emphasis on prevention. General principles of public health are illustrated through textbook readings, contemporary articles, videos, case studies as well as field trips to local organizations.

Gen Ed Attributes: Social Sciences

**PUBH 155 - Reimagining Global Health: Biosocial Perspectives. 3 Credits.**

Examination of global health problems in the context of rapidly changing social structures, cultural beliefs and practices, and environmental and biological realities that transcend geopolitical boundaries. Students will explore case studies and a multidisciplinary research literature centering on how biosocial perspectives might provide a foundation to improve health and well-being on a global level.

**PUBH 191 - Special Topics. 1-6 Credits.**

(R-6) Offered intermittently. Experimental offerings of visiting professors, experimental offerings of new courses, or one-time offerings of current topics. Previous topics have included Global Health and Epidemiology of Infectious Disease. Level: Undergraduate

**PUBH 225 - Public Health Policy. 3 Credits.**

This course introduces concepts of health policy at the global, national, state and local level, and reviews current and emerging issues in health policy. Special emphasis will be on international health. The international emphasis will be on the public health problems facing low- and middle-income countries today, especially those problems relating to reproductive health, infectious diseases, nutrition, and literacy. We will also examine the interaction of health policy and law, and issues of international cooperation and global governance.

**PUBH 230 - Public Health Biology. 3 Credits.**

This course provides a foundation of biology concepts necessary for the practice of public health including an evaluation of the natural history and mechanisms underlying infectious and chronic human diseases.

**PUBH 325 - Environmental and Occupational Health. 3 Credits.**

Prereq., PUBH 101S. This course presents information related to the recognition, evaluation and control of the chemical, physical and environmental factors that can impact human health in the workplace and the community.

**PUBH 330 - Public Health Informatics and Data Systems. 3 Credits.**

Prereq., PUBH 101S. The purpose of this course is to provide the student an overview of the subject of Public Health Informatics. The historical development of public health information management to current developments and issues in public health informatics will be addressed. Current technical concerns, strategies and needs will be studied. Current and historical case studies will be reviewed and analyzed to give the student a deeper appreciation for the field.

**PUBH 345 - Healthcare Systems and Organizations. 3 Credits.**

Prereq., PUBH 101S. This course provides an overview of how healthcare and public health are organized and how their services are delivered in the United States. Topics to be covered include public policy (including U.S. health reform initiatives); organization of healthcare systems; components and operation of healthcare organizations, including e-health delivery; professional roles and accreditation; and legal and regulatory issues, including licensure requirements. The course will also introduce healthcare systems in other countries to serve as a comparison for the U.S. healthcare system.

**PUBH 365 - Population Health Evidence Based Practices. 3 Credits.**

Prereq., PUBH 101S. This course provides an orientation to the U.S. public health system and major contemporary public health problems using evidence-based approaches. Students will apply the principles of evidence-based approaches in critical assessment of public health issues from program design and implementation to evaluation and assessment. This course will emphasize the principles of scientific reasoning and how they inform evidence-based public health interventions. Students will be able to examine public health issues from multiple analytic perspectives and recognize how these perspectives may suggest different solutions to a given public health problem.

**PUBH 380 - Public Health Nutrition. 3 Credits.**

Restricted to students with junior standing. Student strongly encouraged to have completed NUTR 221N or comparable course before enrolling. This course will examine the role of nutrition in promoting, maintaining and improving health in the community. The course will investigate traditional aspects of the emerging health delivery system, as the financial, legislative, political sociological and scientific aspects of public and community health. Students will identify nutrition programs and policies for various stages of the life cycle and develop skills needed to solve nutrition and health problems in community settings.

**PUBH 391 - Special Topics. 1-6 Credits.**

(R-6) Offered intermittently. Experimental offerings of visiting professors, experimental offerings of new courses, or one-time offerings of current topics.

**PUBH 410 - Population Health Planning and Management. 3 Credits.**

Prereq., PUBH 101S. The course is designed to provide students an overview to develop culturally competent public health programs to address the most important health issues affecting our communities at local, national, and international levels. Students will learn the process of public health programming including assessment, design, planning, and implementations and evaluation. The course will also include an overview of effective public health interventions using the socio-ecologic framework (individual/behavioral, environmental/social/community and policy) as a foundation to explore various levels of interventions. Level: Undergraduate

**PUBH 415 - Role of Lifestyle in Chronic Disease Prevention. 3 Credits.**

Restricted to students pursuing the Health Behavior Coaching Certificate. As a Health Behavior Coach knowledge of chronic disease prevention is of utmost importance. In this course coaches will be learn about the art and science of health promotion and disease prevention; including an understanding of risk factors for chronic disease, basic biometric measures, and current lifestyle recommendations for optimizing health. Level: Undergraduate-Graduate

**PUBH 420 - Health Coach Training. 3 Credits.**

Restricted to students pursuing the Health Behavior Coaching Certificate. The purpose of this course is to introduce students enrolled in the Health Behavior Coach Certificate program to the core competencies set out by the National Consortium for Credentialing of Health & Wellness Coaches (NCCWC). Instruction includes an overview of behavior change science and research in the area of effective lifestyle change, as well as practice in the application of the NCCWC competencies. Level: Undergraduate-Graduate

**PUBH 475E - Public Health Ethics. 3 Credits.**

This course is will explore a variety of theories, concepts, issues, cases, and arguments in both medical and public health ethics, including the overlap and distinctions between these two related areas. Level: Undergraduate-Graduate

Gen Ed Attributes: Ethical & Human Values, Writing in the Disciplines

**PUBH 491 - Special Topics. 1-6 Credits.**

(R-6) Offered intermittently. Experimental offerings of visiting professors, experimental offerings of new courses, or one-time offerings of current topics. Previous topics have included Global Health and Epidemiology of Infectious Disease. Level: Undergraduate-Graduate

**PUBH 492 - Independent Study. 1-6 Credits.**

(R-6) Course material appropriate to the needs and objectives of the individual student. Level: Undergraduate/Graduate

**PUBH 494 - Seminar. 1-6 Credits.**

(R-6) A review and discussion of current research. Topics vary. Level: Undergraduate-Graduate

**PUBH 495 - Practicum. 1-6 Credits.**

(R-6) Supervised, practical experience in a professional setting relevant to the student's field of study. Level: Undergraduate-Graduate

**PUBH 498 - Internship. 1-6 Credits.**

(R-6) Offered intermittently. Extended classroom experience that provides practical application of classroom learning during placements off campus. Prior approval must be obtained from the faculty supervisor. A maximum of 6 credits of Internship (198, 298, 398, 498) may count toward graduation. Level: Undergraduate-Graduate

**PUBH 499 - Capstone. 1-3 Credits.**

(R-6) Preparation of a capstone project related to public health. Level: Undergraduate

**PUBH 510 - Intro to Epidemiology. 3 Credits.**

Restricted to graduate students in Public Health. Principles and methods of epidemiologic investigation, descriptive and analytic epidemiology techniques, disease frequency, risk determination, study designs, causality, and validity. Level: Graduate

**PUBH 520 - Fundamentals of Biostatistics. 3 Credits.**

Restricted to graduate students in Public Health. This course is designed for graduate students and practitioners in public health, biomedical sciences, and related fields. The course introduces basic vocabulary, concepts, and methods of biostatistics. The goal is to provide an introduction to how biostatistics works. Topics will include descriptive statistics, probability, random variables, probability distributions, statistical inference, and chi-square analysis. Level: Graduate

**PUBH 525 - Multicultural/Native American Public Health. 3 Credits.**

Restricted to graduate students in Public Health. This course is designed to provide general overview of multicultural issues within the United States and specifically within Montana. The course will provide overview information about health disparities within the nation and how these disparities disproportionately impact ethnic minority populations. Montana's largest minority population is native American tribal communities. As a result, much of the course will incorporate advanced knowledge and topics relating to regional health disparities facing Native American communities. Level: Graduate

**PUBH 530 - Public Health Administration and Management. 3 Credits.**

Restricted to graduate students in Public Health. Overview of public health and health care systems; organizational structures, functions, authorities, policies and procedures; programmatic budgeting, operations, and prioritizations; program performance reporting and improvement; grants and contracts; informatics; human relations and negotiation; management and leadership; and business planning. Level: Graduate

**PUBH 535 - Health Policy. 3 Credits.**

Restricted to graduate students in Public Health. The evolution and intersection of international, federal, state, and local public health policy. Level: Graduate

**PUBH 540 - Social & Behavioral Science in Public Health. 3 Credits.**

Restricted to graduate students in Public Health. Behavioral and social factors relevant to the identification and solution of public health problems, principles of health behavior change, applications, and assessment of interventions. Level: Graduate

**PUBH 542 - Applied Theoretical Foundations of Community Health. 3 Credits.**

Exploration of theoretical foundations of community health and the role of public and community health professionals in the development and implementation of educational, organizational, economic, and/or environmental strategies that promote community health. Level: Graduate

**PUBH 544 - CBPR Methods for Health. 3 Credits.**

Instruction will present the principles and practice of community-based participatory research methods (CBPR) and mixed-methods approaches that offers strategies for studying and addressing health and social problems. Level: Graduate

**PUBH 545 - Issues in Maternal and Child Health. 3 Credits.**

This course provides an overview of maternal and child health problems, programs, and policies. The course examines the social determinants of health and development of women, infants, children and adolescents using the life-course perspective. Students will become familiar with the epidemiology of maternal and childhood diseases and assess the resources and interventions used to combat them. Level: Graduate

**PUBH 546 - Theories of Community Health Promotion. 3 Credits.**

The purpose of this course is to provide students with a broad repertoire of theories that guide community health promotion (HP) research and practice. Students will learn to identify and assess the relevance of diverse theories for various public health issues and to use theory to guide the design, implementation, and evaluation of HP interventions with a focus on social justice and health equity.

**PUBH 550 - Program Evaluation & Research Methods. 3 Credits.**

Restricted to graduate students in Public Health. Covers purpose statements, standards, study designs, sampling, measurement, methods for data collection and analysis, interpretation, and report preparation. Models of evaluation described, and similarities and differences between research and evaluation methods explored. Level: Graduate

**PUBH 560 - Environmental & Rural Health. 3 Credits.**

Restricted to graduate students in Public Health. Relationship of people to their physical environment, how this relationship impacts health, and efforts to minimize negative health effects. Level: Graduate

**PUBH 570 - Ethical Issues in Public Health. 3 Credits.**

Restricted to graduate students in Public Health. Focus on the values and moral issues that underlie U.S. public health policies. Course examines ethical decision making in areas such as policy development, research, environmental health, occupational health, resource allocation, and genetics. Level: Graduate

**PUBH 580 - Rural Health Issues Global Context. 3 Credits.**

Restricted to graduate students in Public Health. Focus on rural concerns and global influences on public health. Covers trends in global health, global health policies, players, priorities, human rights, health equity, and mobile and vulnerable populations. Students will be introduced to health research methods and design, which will be used to analyze rural and global health issues. Emphasize the science and art of epidemiological strategies to answer specific health questions. Level: Graduate

**PUBH 590 - Research. 3 Credits.**

(R-6) Restricted to graduate students in Public Health. With the guidance of their faculty advisor, students will develop a written proposal specific to the goals of their research project, and carry out the project. Level: Graduate

**PUBH 591 - Special Topics/Experimental. 1-6 Credits.**

(R-12) Offered intermittently. Experimental offerings of visiting professors, experimental offerings of new courses, or one-time offerings of current topics. Previous topics have included Global Health and Epidemiology of Infectious Disease. Level: Graduate

**PUBH 592 - Independent Study. 1-6 Credits.**

(R-6) Restricted to graduate students in Public Health. Course material appropriate to the needs and objectives of the individual student. Level: Graduate

**PUBH 595 - Practicum. 3 Credits.**

Restricted to graduate students in Public Health. Students will demonstrate attainment of public health competencies through a practice-based experience. The final product of the APE is a portfolio that includes at least two distinct products (such as videos, multimedia presentations, journal entries, spreadsheets, websites, posters, photos or other digital artifacts of learning) as well as an oral presentation. Students must have completed 12 credits of core courses prior to enrolling for the APE. Offered credit/no credit only. Level: Graduate

**PUBH 599 - Professional Paper/ILE. 3 Credits.**

Restricted to graduate students in the Public Health program. Students will demonstrate synthesis and integration of public health knowledge in the foundational and concentration-specific public health competencies through the development of a high-quality written product that is appropriate for the student's educational and professional objectives. The ILE should be completed after the student has at least 12 credits in the degree program. Offered credit/no credit only. Level: Graduate

**PUBH 600 - Research Rotations in Public Health. 3 Credits.**

Restricted to graduate students in Public Health. This course will provide students with experience related to different types of public health research projects being conducted not only within the School of Public and Community Health Sciences, but throughout the University of Montana. Level: Graduate

**PUBH 610 - Data Science and Research Methods Using R. 3 Credits.**

This course is designed for graduate students in public health and other disciplines to learn data science and management techniques using the R programming language. Specific topics covered in the course include exploring, cleaning, and manipulating data, data visualization, summarizing and analyzing data using basic applied statistical methods, reproducible workflows in research, and ethical research practices for working with data. The course is designed to guide students with little to no coding experience through beginner and intermediate level data management techniques in R. However, students with previous coding and/or R experience will also find the course helpful in refining their R skills and learning new and more advanced techniques. The course will prepare students for more advanced courses in statistics and epidemiology as well as for research-based projects, thesis projects, dissertations, and jobs/careers that require knowledge of data management and analytical techniques.

**PUBH 612 - Neuroepidemiology. 3 Credits.**

Prereq., PUBH 510. Students will learn about special considerations researchers incorporate into studying neurological diseases. Course materials will include a presentation of the pathophysiology, clinical aspects and descriptive epidemiology of a variety of neurologic diseases. Particular emphasis will be placed on the methodologic challenges and strategies associated with the study of these diseases. Level: Graduate

**PUBH 613 - Spatial Epidemiology in Geographic Information Systems (GIS). 3 Credits.**

Prereq., PUBH 510. Spatial epidemiology is the study of the spatial distribution of disease that encompasses both the description and analysis of geographic variations in disease with respect to any number of risk factors. Spatial Epidemiology in Geographic Information Systems (GIS) is a unique course designed for teaching GIS techniques to students interested in public health, epidemiology, and infectious disease. It imbeds learning GIS software in the context of human health scenarios including wildlife (zoonotic) hosts and arthropod vectors. Students will gain basic skills in analyzing datasets and performing spatial and neighborhood analyses on data. Level: Graduate

**PUBH 614 - Environmental and Occupational Epidemiology. 3 Credits.**

Prereq., PUBH 510. Through readings, case studies, and class discussions, students will gain the ability to critically evaluate published research in environmental and occupational epidemiology that will provide the background for students to design and conduct their own research. A particular emphasis will be on published research relevant to rural communities to illustrate concepts; however, we also will draw from examples from around the world relating to a wide variety of exposures. Level: Graduate

**PUBH 615 - Infectious Disease Epidemiology and Control. 3 Credits.**

This graduate level course will review infectious disease concepts, examine principles of epidemiology used to characterize infectious diseases, and explore how these concepts and principles are applied to infectious disease prevention and control. Special topics including COVID-19, disease transmission modeling and geospatial epidemiology will be explored. Vaccines as a means to prevent infectious diseases will be covered in detail, including vaccine safety monitoring and vaccine hesitancy in the U.S.

**PUBH 620 - Advanced Quantitative Methods in Public Health I. 3 Credits.**

Prereq., PUBH 510 and PUBH 520. Through lectures and collaborative problem sets, students will gain the expertise to design and conduct their own research. The emphasis will be on concepts related to basic and advanced epidemiologic methods and on how these concepts influence study design choices. We will utilize R and STATA statistical software throughout the course to illustrate concepts using simple datasets. Level: Graduate

**PUBH 621 - Advanced Quantitative Methods in Public Health II. 3 Credits.**

Prereq., PUBH 620. This is the second in the Advanced Quantitative Methods series in public health. This semester will focus on practical data analysis and the presentation and translation of findings in both manuscript and oral form. We will analyze a complex, longitudinal dataset to illustrate the concepts learned in the first semester. The course will culminate in the analysis of a new longitudinal dataset and the presentation of your results. Level: Graduate

**PUBH 640 - Qualitative Research Methods in Public Health. 3 Credits.**

Prereq., PUBH 540. This course provides an overview of qualitative research methods commonly used in public health research. Students will develop expertise in designing and conducting a range of data collection techniques (e.g., focus groups, semi-structured interviews, observations) and performing a variety of analyses (e.g., coding, narrative and thematic analysis, memoing). Students will also gain expertise in qualitative data management and computer assisted qualitative data analysis. The major deliverables in this class include developing a presentation on a qualitative research approach, designing a qualitative research project, and writing a proposal that describes a qualitative research project. Level: Graduate

**PUBH 690 - Research. 1-9 Credits.**

(R-27) With the guidance of their faculty advisor, students will develop a written proposal specific to the goals of their research project, and carry out the project.

**PUBH 691 - Special Topics. 1-6 Credits.**

(R-6) Experimental offerings of visiting professors, experimental offerings of new courses, or one-time offerings of current topics.

**PUBH 692 - Independent Study. 1-6 Credits.**

(R-6) Course material appropriate to the needs and objectives of the individual student.

**PUBH 694 - Seminar. 1-3 Credits.**

(R-9) A review and discussion of current research. Topics vary. Level: Graduate

**PUBH 699 - Dissertation. 1-9 Credits.**

(R-50) The dissertation is an original contribution to knowledge of such substance and literary quality as to warrant publication. A dissertation research proposal that is approved by the student's Ph.D. Advisory Committee must be completed before registering for dissertation research credit. Level: Graduate

## Russian (RUSS)

**RUSS 101 - Elementary Russian I. 4 Credits.**

Offered autumn. Emphasis on oral communication, with development in all major skill areas: listening, speaking, reading, and writing.

**RUSS 102 - Elementary Russian II. 4 Credits.**

Offered spring. Prereq., RUSS 101. Continuation of RUSS 101. Gen Ed Attributes: Language Requirement

**RUSS 105Y - Intro to Russian Culture. 3 Credits.**

Offered autumn. A chronological survey of Russian culture from its beginnings to the contemporary period. Gen Ed Attributes: Cultural & International Diversity, Democracy and Citizenship

**RUSS 191 - Special Topics. 1-6 Credits.**

(R-6) Offered intermittently. Experimental offerings of visiting professors, experimental offerings of new courses, or one-time offerings of current topics.

**RUSS 192 - Independent Study. 1-6 Credits.**

(R-6) Offered intermittently. Course material appropriate to the needs and objectives of the individual student.

**RUSS 193 - Study Tours/Study Abroad. 1-12 Credits.**

(R-24) This course facilitates registration for SRAS language programs.



**RUSS 201 - Intermediate Russian I. 4 Credits.**

Offered autumn. Prereq., RUSS 102. Continuation of active skills approach to Russian listening, speaking, reading, and writing.  
Gen Ed Attributes: Language Requirement

**RUSS 202 - Intermediate Russian II. 4 Credits.**

Offered spring. Prereq., RUSS 201. Continuation of RUSS 201. Continuation of active skills approach to Russian listening, speaking, reading, and writing.  
Gen Ed Attributes: Language Requirement

**RUSS 292 - Independent Study. 1-6 Credits.**

(R-6) Offered autumn and spring. Course material appropriate to the needs and objectives of the individual student.

**RUSS 293 - Study Tours/Study Abroad. 1-12 Credits.**

(R-12) This course facilitates registration for SRAS language programs.

**RUSS 301 - Russian: Oral & Written Expression I. 3 Credits.**

Offered autumn. Prereq., RUSS 202. Emphasis on active use of Russian. Intensive practice in conversation and writing.  
Gen Ed Attributes: Language Requirement

**RUSS 302 - Russian: Oral and Written Expression II. 3 Credits.**

Prereq., RUSS 301. Continuation of RUSS 301. A continued emphasis on active use of Russian. Intensive practice in conversation and writing.  
Gen Ed Attributes: Language Requirement

**RUSS 306L - Evil and the Supernatural in Russian Literature. 3 Credits.**

Offered alternate years. A survey of 19th-and 20th century Russian literature in translation. This course will focus on texts exploring evil and the supernatural. May include the works of Pushkin, Gogol, Dostoevsky, Tolstoy, Chekhov, Bulgakov and others. No knowledge of Russian is necessary.  
Gen Ed Attributes: Literary & Artistic Studies

**RUSS 307L - Beauty, Power and Pride in Russian Literature. 3 Credits.**

Offered alternate years. Survey of Russian literature up to the present day. Texts focus on the themes of beauty, power and pride as a lens for exploring elements of Russian identity.  
Gen Ed Attributes: Literary & Artistic Studies

**RUSS 308 - Russian Cinema and Culture. 3 Credits.**

Offered intermittently. Topically arranged introduction to the cinema of Russia and the former Soviet Union, with particular emphasis on contemporary Russian cinema. Screening preceded by brief cultural and historical background lectures and followed by group and paired discussion. All films screened with English subtitles. No knowledge of Russian is necessary.

**RUSS 355 - Russia and the West: from Peter the Great to Putin. 3 Credits.**

Offered intermittently. The final years of the Cold War appeared to usher in an era of cooperation between Russia, the USA, and major Western European powers. Many in the West seemed optimistic about Russia's ability to develop democratic and market-based institutions to facilitate Russia's eventual integration into the so-called family of Western European nation states. Few share such optimism today. Russia's relations with the United States and the West broadly conceived are among the most tense and confrontational in recent history. Many commentators on Russia even go so far as to characterize the current period as a New Cold War. This course will attempt to place present-day relations between Russia and the West in a broader historical, cultural, and political perspective.

**RUSS 371 - SRAS: The New Great Game. 3 Credits.**

Offered every term. Restricted to students in the SRAS program. Taught at The London School in Bishkek, Kyrgyzstan. This course offers an overview of the New Great Game as a renewed struggle for hegemony and control over natural resources in Central Asia between competing global powers, the Central Asian republics themselves, and neighboring states.

**RUSS 372 - SRAS: Understanding Central Asia. 3 Credits.**

Offered every term. Restricted to students in the SRAS program. Taught at The London School in Bishkek, Kyrgyzstan. The course offers a broad overview of the cultural and social, as well as the historical and religious, dimensions of Central Asia, including Kyrgyzstan, Kazakhstan, Uzbekistan, Turkmenistan, and Tajikistan, in addition to Afghanistan and Xinjiang because of their influential role in greater Eurasia.

**RUSS 373 - SRAS: Golden Age of Russian Literature. 3 Credits.**

Offered every term. Restricted to students in the SRAS program. Taught at The London School in Bishkek, Kyrgyzstan. This course offers an overview the Golden Age of Russian literature, as well as a holistic historical and literary understanding of the links between the development of Russian literature and the expansion of the Russian empire.

**RUSS 374 - SRAS: Literature & Film of Central Asia. 3 Credits.**

Offered every term. Restricted to students in the SRAS program. Taught at The London School in Bishkek, Kyrgyzstan. Through examining the literary and cinematic traditions of five Central Asian countries, this course touches upon the socio-historical, anthropological, and philosophical landscapes Central Asia. Russian is the language of instruction for this course, which is a reflection of Russia's position as a principal colonizer of Central Asia.

**RUSS 375 - SRAS: Politics and Economy of Central Asia. 3 Credits.**

Offered every term. Restricted to students in the SRAS program. Taught at The London School in Bishkek, Kyrgyzstan. Language of instruction is Russian. This course serves as a broad introduction to the most salient issues of the political and economic landscapes of Central Asia.

**RUSS 376 - SRAS: The Regional History of Kyrgyzstan. 3 Credits.**

Offered every term. Restricted to students in the SRAS program. Taught at The London School in Bishkek, Kyrgyzstan. Language of instruction is Russian. This course provides students with an in-depth overview of the regional history of Kyrgyzstan, beginning with the first human settlements in the Tian Shien mountains and going through the nation's independence and multiple revolutions of the 21st century.

**RUSS 391 - Special Topics. 1-9 Credits.**

(R-9) Offered intermittently. Experimental offerings of visiting professors, experimental offerings of new courses, or one-time offerings of current topics.

**RUSS 392 - Independent Study. 1-6 Credits.**

(R-12) Offered autumn and spring. Course material appropriate to the needs and objectives of the individual student.

**RUSS 393 - Study Tours/Study Abroad. 1-12 Credits.**

(R-24) This course facilitates registration for SRAS language programs.

**RUSS 398 - Internship. 1-6 Credits.**

(R-6) Offered intermittently. Extended classroom experience that provides practical application of classroom learning during placements off campus. Prior approval must be obtained from the faculty supervisor. A maximum of 6 credits of Internship (198, 298, 398, 498) may count toward graduation.



**RUSS 411 - 19th-Century Russian Authors. 3 Credits.**

Offered intermittently. Prereq., RUSS 202. A study of various authors; may include Pushkin, Dostoevsky, Tolstoy, etc. Level: Undergraduate-Graduate

**RUSS 412 - 20th-Century Russian Authors. 3 Credits.**

Offered intermittently. A study of various authors; may include Bulgakov, Nabokov, Solzhenitsyn, etc. Level: Undergraduate-Graduate

**RUSS 424 - Russian Short Story. 3 Credits.**

Offered intermittently. Prereq., RUSS 202. A chronological study of the Russian short story, 19th and 20th centuries. Level: Undergraduate-Graduate

**RUSS 440 - Russian Poetry. 3 Credits.**

Offered intermittently. Prereq., RUSS 202. The evolution of Russian poetry from the end of the 18th century to the contemporary period. Level: Undergraduate-Graduate

**RUSS 491 - Special Topics. 1-6 Credits.**

(R-6) Offered intermittently. Experimental offerings of visiting professors, experimental offerings of new courses, or one-time offerings of current topics. Level: Undergraduate

**RUSS 492 - Independent Study. 1-6 Credits.**

(R-6) Offered autumn and spring. Course material appropriate to the needs and objectives of the individual student. Level: Undergraduate-Graduate

**RUSS 493 - Study Tours/Study Abroad. 1-12 Credits.**

(R-24) This course facilitates registration for SRAS language programs.

**RUSS 494 - Seminar in Russian Studies. 1-3 Credits.**

(R-9) Offered intermittently. Topics of the seminar include 1.) The Russian Novel and 2.) Dostoevsky and 3.) Women and Gender in Russian Culture. May be taken for honors credit through the Davidson Honors College. No knowledge of Russian is necessary, but Russian majors will be required to do selected readings in the original Russian. Fulfills the Writing in the Disciplines expectation for Russian majors. Topics announced in class schedules. Level: Undergraduate  
Gen Ed Attributes: Writing in the Disciplines

**RUSS 592 - Independent Study. 1-6 Credits.**

(R-6) Offered intermittently. Course material appropriate to the needs and objectives of the individual student. Level: Graduate

**RUSS 594 - Seminar. 1-3 Credits.**

(R-6) A review and discussion of current research. Topics vary.

## Social Work (S W)

**S W 100S - Introduction to Social Welfare. 3 Credits.**

Offered autumn. Overview of human services, programs and problems in meeting social welfare needs, with emphasis on the complexity of social services and their historical development. Analysis of the value, attitudinal, economic and political factors that condition the provision of these services.

Gen Ed Attributes: Social Sciences

**S W 110 - Global Justice and Sustainable Development. 3 Credits.**

This course aims to enhance student understanding of contemporary challenges related to global justice and sustainable development. The 2030 Agenda for Sustainable Development, adopted by all United Nations Member States in 2015, "provides a shared blueprint for peace and prosperity for people and the planet, now and into the future" (<https://sdgs.un.org/goals>). This global vision includes 17 Sustainable Development Goals (SDGs) that aim to address the most urgent problems affecting most of the world, ranging from poverty, hunger, health and educational disparities, gender and economic inequality, shortage of clean water and clean energy, climate change, to conflicts and injustice. The course will draw on multidisciplinary approaches to guide students to develop a deeper understanding of these challenges from both global and local perspectives. Students will compare the global discourse about SDGs with country-level interpretations of the development vision.  
Gen Ed Attributes: Cultural & International Diversity

**S W 198 - Internship. 1-3 Credits.**

(R-3) Offered autumn and spring. Extended classroom experience that provides practical application of classroom learning during placements off campus. Prior approval must be obtained from the faculty supervisor. A maximum of 6 credits of Internship (198, 298, 398, 498) may count toward graduation.

**S W 200 - Intro to Social Work Practice. 3 Credits.**

Offered spring. Prereq., S W 100S. Restricted to students with at least sophomore standing. Introduction to social work as a profession, including an examination of goals, guiding philosophy and basic assumptions. Emphasis on a generalist framework of social work practice and the development of beginning analytical and practice skills.

**S W 291 - Special Topics. 1-6 Credits.**

(R-6) Offered intermittently. Experimental offerings of visiting professors, experimental offerings of new courses, or one-time offerings of current topics.

**S W 300 - Human Behavior & Social Environment. 3 Credits.**

Offered autumn. Prereq., WRIT 101 or WRIT 201; and S W 200. Restricted to students in Social Work with at least junior standing. Using the ecological-social systems framework, the integration of knowledge and concepts from the social and behavioral sciences for analysis and assessment of problems and issues relevant to professional social work practice.

Gen Ed Attributes: Writing in the Disciplines

**S W 310 - Social Work Policy & Services. 3 Credits.**

Offered spring. Prereq., S W 300. Social welfare history, program planning and analysis with review of selected policies on the national level. Includes international comparisons.

**S W 350 - Social Work Intervention Methods I. 3 Credits.**

Offered autumn. Prereq., S W 200. The study and application of the generalist model of social work practice and related techniques and procedures for the assessment, intervention and prevention of problems in social functioning. Emphasis on individuals and families.

**S W 360 - Social Work Intervention Methods II. 3 Credits.**

Offered spring. Prereq., S W 300 and S W 350. The study and application of the generalist model of social work practice and related techniques and procedures for the assessment, intervention and prevention of problems in social functioning. Emphasis on groups and team meetings.

**S W 391 - Special Topics. 1-12 Credits.**

(R-12) Offered intermittently. Experimental offerings of visiting professors, experimental offerings of new courses, or one-time offerings of current topics.

**S W 398 - Internship. 1-6 Credits.**

(R-6) Offered autumn and spring. Extended classroom experience that provides practical application of classroom learning during placements off campus. Prior approval must be obtained from the faculty supervisor. A maximum of 6 credits of Internship (198, 298, 398, 498) may count toward graduation.

**S W 400 - Social Work Research. 3 Credits.**

Offered autumn. Prereq., S W 350. Utilization of social research findings in social work practice. Techniques for the collection and analysis of clinical data. Special emphasis on research methodology for the assessment of practitioner and program effectiveness. Level: Undergraduate-Graduate

**S W 410E - Social Work Ethics. 3 Credits.**

Offered spring. Prereq., S W 350. Analysis of specific ethical dilemmas from personal, professional and policy perspectives. Focus on ethical issues common to the helping professions and utilizing codes of ethics as guides to decision-making. The relationship between professional ethical issues and the development of social policy. Level: Undergraduate-Graduate

Gen Ed Attributes: Ethical & Human Values

**S W 420 - Child Abuse & Child Welfare. 3 Credits.**

Offered autumn. Restricted to students with at least junior standing. Signs and symptoms of physical and sexual abuse and neglect, family dynamics in abuse and neglect, the legal context, programs of prevention and intervention, foster care, special needs adoptions and related issues in child welfare. Level: Undergraduate-Graduate

**S W 423 - Addiction Studies. 3 Credits.**

Offered spring and summer. Examination of substance use disorders and misuse, behavioral compulsions, including alcohol and other drugs, gambling, eating disorders, sexual addictions. Ecosystems perspective on etiology, treatment, prevention, family dynamics, community response, and societal contributors. This course is an elective that satisfies curriculum towards the State of Montana Licensed Addictions Counselor (LAC) credential. Level: Undergraduate-Graduate

**S W 424 - Professional Skills Lab. 2 Credits.**

This course provides students with the practice skills needed to successfully enter the child welfare field and include: conducting assessments, interviewing children, adults, and families, family engagement, documentation, case management, crisis intervention, and preparing and testifying in court. Level: Undergraduate-Graduate

**S W 426 - Substance Use Disorders and Social Work Skills Sets. 3 Credits.**

Offered autumn. Prereq., S W 423. This course is designed to help Licensed Addiction Tract social work students build on the knowledge and theories introduced in SW 423, while building competencies in core skill- sets required for working directly with populations impacted by substance use disorders and misuse. This course is an elective that satisfies curriculum towards the State of Montana Licensed Addictions Counselor (LAC) credential. Level: Undergraduate-Graduate

**S W 427 - Motivational Interviewing. 2 Credits.**

This course will provide foundations for proficiency in understanding and use of Motivational Interviewing (MI). MI will be taught through an inter-professional education (IPE) model as an evidence-based interview practice to support behavior change and enhance the delivery of best practice approaches between client and practitioner in various allied health and human service fields. This course is an elective that satisfies curriculum towards the State of Montana Licensed Addictions Counselor (LAC) credential. Level: Undergraduate-Graduate

**S W 450 - Children and Youth at Risk. 3 Credits.**

Offered autumn or spring. Focus on the aspects of society that pose a threat to today's youth and the ramification of those threats on youth development and behavior. Resilience and protective factors for youth at risk and strategies to work with those youth. Attention to related systems in Missoula and Montana, including juvenile justice, mental health, child protection, substance abuse, and education. Level: Undergraduate-Graduate

**S W 455 - Social Gerontology. 3 Credits.**

Offered autumn. Examination of the field of social gerontology, including an examination of the major bio/psycho/social/cultural/spiritual theories of aging, the service system, social and health issues, family and care-giving dynamics, social policy, and end of life concerns. Level: Undergraduate-Graduate

**S W 463 - Social Justice in Indian Country. 2 Credits.**

Offered autumn. This provides the senior undergraduate/graduate student with an overview of the history and context of the social and political issues impacting tribal communities. This course also provides an opportunity for students to become familiar with the strengths, values, and cultural paradigms of North American tribes while also providing the foundation for understanding the health, education, and environmental disparities of AI/AN people. Level: Undergraduate-Graduate

**S W 464 - Cultural Humility in Social Work Practice: Valuing Diversity. 3 Credits.**

Offered autumn. Prereq., S W 300. A required diversity course specific to social work. The course is designed to provide foundational understandings of anti-racist and inclusive principles and practices in the social work profession, as defined in professional, state and educational accreditation standards and guidelines. Level: Undergraduate

**S W 465 - Social Work Global Context. 3 Credits.**

Offered spring even-numbered years. Prereq., upper-division or graduate standing. Examination of globalization, human rights, poverty, international aid, and gender issues; their relationship to social work and social justice, and strategies for action. Level: Undergraduate-Graduate

**S W 475 - Death, Dying and Grief. 3 Credits.**

Offered intermittently. Examination of death, dying and grief from an ecological perspective, focusing on the processes of dying and theories of grief. Emphasis on physical, social, psychological, spiritual, and cultural influences that surround death and grief. Consideration of cultural norms, attitudes toward death, medical, legal and ethical issues of dying. Focus on normal and complicated grief. Level: Undergraduate-Graduate

**S W 480 - Women's Policy Leadership Institute. 1 Credit.**

(R-6) Attendance of the annual Women's Policy Leadership Institute conference in Helena. Co-convened with S W 580. Graded on a credit/no-credit basis. Level: Undergraduate

**S W 487 - Advanced Practice I. 2 Credits.**

Offered every term. Prereq., S W 350. Coreq., S W 495. Admission to the practicum program is required. Consideration and discussion of practicum-related matters, professional development, and issues confronting the profession. Level: Undergraduate

**S W 488 - Advanced Practice II. 2 Credits.**

Prereq., S W 350. Coreq., S W 495. Admission to the practicum program is required. Consideration and discussion of practicum-related matters, professional development, and issues confronting the profession. Level: Undergraduate

**S W 491 - Special Topics. 1-9 Credits.**

(R-9) Offered intermittently. Experimental offerings of visiting professors, experimental offerings of new courses, or one-time offerings of current topics. Level: Undergraduate-Graduate

**S W 492 - Independent Study. 1-10 Credits.**

(R-10) Offered intermittently. Course material appropriate to the needs and objectives of the individual student. Level: Undergraduate

**S W 495 - Field Work Practicum. 5 Credits.**

(R-10) Offered every term. Prereq., S W 350. This practicum requires an approved application to the Practicum Coordinator and must be taken over two consecutive semesters for a total of 10 credits with a minimum of one credit per semester. It also requires a grade average of 2.75 or above in the following courses: S W 100S, S W 200, S W 300, S W 350 and S W 360 as well as a 3.0 grade average in S W 200, S W 350 and S W 360. Supervised field work in public and private agencies and institutions. Successful completion of the field work practicum requires a passing performance on the school administered professional social work competency examination. Level: Undergraduate-Graduate

**S W 500 - Orientation. 1 Credit.**

Restricted to students in the Master of Social Work program. Seminar introducing M.S.W. students to program philosophy and social works theory and value base. Level: Graduate

**S W 505 - Foundations of Social Work Practice. 2 Credits.**

Restricted to students in the Master of Social Work program. Introductory practice course that examines generalist social work practice, dominant theoretical influences, and forces shaping social work over time. Level: Graduate

**S W 510 - Human Behavior and Social Environment I. 3 Credits.**

Restricted to students in the Master of Social Work program. Introduction to and critical consideration of social work perspectives on human behavior as influenced by the social environment. Particular attention is paid to biological, psychological, social, cultural and spiritual influences. Level: Graduate

**S W 511 - Human Behavior and Social Intervention II. 3 Credits.**

Prereq., S W 510. Restricted to students in the Master of Social Work program. Advanced course on human behavior and social environment that addresses difference and diversity, histories and mechanisms of discrimination and oppression, and frameworks for thought and practice that recognize diversity and promote social justice. Level: Graduate

**S W 515 - Practice with Individuals & Families. 3 Credits.**

Restricted to students in the Master of Social Work program. Practice-oriented course building on students developing knowledge of engagement, assessment, intervention and evaluation and the application to practice with individuals and families in context of community. Level: Graduate

**S W 520 - Social Work Research Methods. 3 Credits.**

Restricted to students in the Master of Social Work program. Introduction to principles, methodologies, technologies, and statistical approaches of human service research. Emphasis on beginning capabilities in evaluation of social work practice and skill development regarding use of published research. Level: Graduate

**S W 521 - Advanced Research. 3 Credits.**

Prereq., S W 520. Restricted to students in the Master of Social Work program. The use of research within the integrated practice model of social work through evaluation of practice and program evaluation. Advanced statistical concepts are applied to direct practice and five types of program evaluation. Level: Graduate

**S W 525 - Practicum in Groups & Communities. 4 Credits.**

Prereq., S W 515. Restricted to students in the Master of Social Work program. Practice oriented course addressing theories, frameworks, principles, and skills of group and community work. Dynamics of group work and examination of modalities such as mutual aid and social action groups. Level: Graduate

**S W 526 - Critical Skills in Social Work Practice. 3 Credits.**

Restricted to students in the Master of Social Work Advanced Standing program. This course is a refresher on the theories, frameworks, principles, and skills of individual, group, and community practice. It builds on the integrative model of social work knowledge and the skills students developed in BSW coursework and field education. It expands on these for effective individual, group, and community work. The course begins by examining social work's historic commitment to work beginning at the turn of the 20th century. Students learn about the principles and dynamics of clinical and community work and examine and participate in an experiential training model for direct practice. Students will also complete a community change planning project based on the identified needs of the student's own community. This course focuses on the skills necessary to become effective individual, group, and community-based practitioners. Students will develop and hone interpersonal, group, and community practice skills as they identify specific problems, facilitate decision-making processes, and formulate plans for intervention. Throughout the course, students will use diverse approaches to self assessment of personal and professional development, evaluate strategies and tactics of community practice, and critically reflect on the interrelationship of values, ethics, power, knowledge, and communication. Particular attention will be paid to the influence of systemic inequalities (i.e., racism, sexism, classism, ageism, heterosexism) in interpersonal interactions and skill building for empowerment-oriented practice. Level: Graduate

**S W 530 - History of Social Policy. 3 Credits.**

Restricted to students in the Master of Social Work program. Foundation in social welfare policy and services; examination of relationship between history social welfare policy and emergence of social work profession. Introduction to frameworks for policy analysis. Level: Graduate

**S W 531 - Social Policy Analysis. 3 Credits.**

Prereq., S W 530 or S W 533. Restricted to students in the Master of Social Work program. Focus on the analysis of existing or proposed policies specific to oppressed populations, rural areas and isolated communities. Level: Graduate

**S W 532 - Indian Child Welfare Act. 1 Credit.**

Restricted to students in the Master of Social Work program. This course will provide students with an understanding of the Indian Child Welfare Act including the historical events leading to its passage and contemporary issues surrounding implementation of the law. Students will apply knowledge of the law to practice and build skills on working across cultural differences in order to promote the best interest of American Indian children and families.

**S W 533 - History of Social Policy, Justice, and Change. 2 Credits.**

Restricted to students in the Master of Social Work Advanced Standing program. This foundation course in social policy history examines the dynamic relationship among the forces and movements shaping U.S. social history, the development of social welfare policies, and the emergence of the social work profession. We address the cultural and historical contexts and political and economic forces forging social conditions, professional responses to those conditions, and public debates regarding the nature of social welfare, approaches to policy analysis and advocacy, and the dynamics of policy change. We critically examine the values, assumptions, and knowledge bases that have informed social policies, programs, and services with attention to questions of difference, diversity, equity, and inclusion.

**S W 535 - Advanced Practice. 4 Credits.**

Prereq., S W 525 or S W 526. Restricted to students in the Master of Social Work program. Builds on the skills, knowledge, and values of the foundation generalist and practice courses. Level: Graduate

**S W 545 - Organizational Leadership. 3 Credits.**

Prereq., S W 525 or S W 535. Restricted to students in the Master of Social Work program. Advanced training in professional leadership and how to effectively conceive, plan, design, implement, manage, assess, and change contemporary organizations. Level: Graduate

**S W 551 - Couples and Family Therapy. 3 Credits.**

Offered spring. Prereq., S W 505. Restricted to students in the Master of Social Work program. Course explores family-centered methods of clinical social work interventions with couples and families that can be applied in a variety of settings. Level: Graduate

**S W 552 - Differential Diagnosis in Clinical Social Work Practice. 3 Credits.**

Prereq., S W 505. Restricted to students in the Master of Social Work program. Focus on current problems of children, adolescents, and adults of all ages that can be classified as a mental disorder under the DSM system. Includes information on theories within the bio-psycho-social paradigm of causality of disorders/conditions; on methods of assessment, including the DSM; and an understanding of how social injustice, oppression, and poverty impacts healthy growth and development across the lifespan. Level: Graduate

**S W 553 - Social Work Addictions. 3 Credits.**

Offered spring semester. Restricted to students in the Master of Social Work program. The course examines historical and contemporary models of direct practice, and current ideological, political, policy and systemic challenges to the practice of social work in the addictions. Level: Graduate

**S W 556 - Expressive Arts Therapy: Healing Trauma and Soul Wounds. 3 Credits.**

Offered spring and summer. Restricted to students in the Master of Social Work program. This course introduces students to Expressive Arts Therapy principles related to trauma, secondary trauma, post-traumatic growth, and vicarious resilience. Expressive arts theory centers the arts as a catalyst to heal and bolster psychosocial wellbeing. Various forms of creative expression will be introduced as an avenue to reflect, communicate, and support others in their wellness. Culturally based art experiences will be demonstrated and practiced throughout the course. Level: Graduate

**S W 557 - Introduction to Trauma-Focused Psychotherapy. 3 Credits.**

Offered fall. Prereq., S W 500, S W 505, & S W 510. Modern mental health research acknowledges that traumatic experiences underlie many common pathologies and that skillfully engaging traumatic material is an important part of effective mental health care. In many settings, clinicians are expected to have a sound theoretical understanding of trauma and its effects as well as a toolbox of practical interventions to supplement cognitive and behavioral models that are most commonly emphasized in community mental health work. This course is designed to provide students with a working understanding of the theory and neurobiology of trauma treatment, an introduction to contemporary models of trauma processing, and a palette of clinical skills that they can employ as they begin their careers as clinicians. Level: Graduate

**S W 576 - Found Integrative Seminar I. 1 Credit.**

Restricted to students in the Master of Social Work program. Seminar accompanying first semester foundation practicum in which students discuss experience with goal of integrating theory and practice. Level: Graduate

**S W 577 - Found Integrative Seminar II. 1 Credit.**

Prereq., S W 505 and S W 587. Restricted to students in the Master of Social Work program. Seminar accompanying second semester foundation practicum in which students discuss experience with goal of integrating theory and practice. Level: Graduate

**S W 578 - Advanced Seminar I. 1 Credit.**

Prereq., S W 587. Coreq., S W 588. Critical analysis of how predominant social work theories and professional values and skills are being incorporated into the practicum. Level: Graduate

**S W 579 - Advanced Seminar II. 1 Credit.**

Prereq., S W 578. Critical analysis of how predominant social work theories and professional values and skills are being incorporated into the practicum. Advanced portfolio development. Level: Graduate

**S W 580 - Women's Policy Leadership Institute . 1 Credit.**

(R-6) Students receive credit for attendance of the annual Women's Policy Leadership Institute conference in Helena. Credit/No-Credit grading only.

**S W 586 - Foundation Practicum I. 2 Credits.**

Restricted to students in the Master of Social Work program. First semester foundation field practicum experience in a supervised setting designed to provide opportunities to integrate classroom learning and field experiences. Course graded only on CR/NCR basis. Level: Graduate

**S W 587 - Foundation Practicum II. 2 Credits.**

Prereq., S W 505 and S W 586. Restricted to students in the Master of Social Work program. Second semester foundation field practicum experience in a supervised setting designed to provide opportunities to integrate classroom learning and field experiences. Level: Graduate

**S W 588 - Concentration Practicum I. 3 Credits.**

Prereq., S W 587. Coreq., S W 578. Advanced supervised field work in public and private agencies and institutions. Course graded only on CR/NCR basis. Level: Graduate

**S W 589 - Concentration Practicum II. 3 Credits.**

Prereq., S W 588. Advanced supervised field work in public and private agencies and institutions. Level: Graduate

**S W 590 - Research. 1-9 Credits.**

(R-9) Offered autumn or spring. Restricted to students in the Master of Social Work program. Directed individual graduate research and study appropriate to background and objectives of the student. Level: Graduate



**S W 591 - Special Topics. 1-9 Credits.**

(R-9) Offered autumn and spring. Restricted to students in the Master of Social Work program. Experimental offerings of visiting professors, experimental offerings of new courses, or one-time offerings of current topics. Level: Graduate

**S W 592 - Independent Study. 1-9 Credits.**

(R-9) Offered autumn or spring. Restricted to graduate students in the Master of Social Work program. Course material appropriate to the needs and objectives of the individual student. Level: Graduate

**S W 594 - Graduate Seminar. 3 Credits.**

(R-9) Offered autumn or spring. Restricted to students in the Master of Social Work program. In-depth analysis of a current social work issue. Level: Graduate

**S W 599 - Professional Portfolio. 1 Credit.**

Summative and in-depth written analysis of course work and practicum experience. Level: Graduate

## Sociology (SOCI)

**SOCI 101S - Introduction to Sociology. 3 Credits.**

Offered every term. Overview of the principles and concepts used in the study of human social interaction, groups, communities and societies. Gen Ed Attributes: Social Sciences

**SOCI 191 - Special Topics. 1-6 Credits.**

(R-24) Offered intermittently. Experimental offerings of visiting professors, experimental offerings of new courses, or one-time offerings of current topics.

**SOCI 202 - Social Statistics. 3 Credits.**

Offered every term. Prereq., M 105 or higher or a score of 3 or higher on the EdReady math placement exam. Application of descriptive and inferential statistical techniques to sociological data. Required for all Sociology majors.

**SOCI 211S - Introduction to Criminology. 3 Credits.**

Offered autumn. A critical examination of crime in society: how crime is defined, the extent and distribution of crime, theoretical explanations of criminal behavior, and crime control efforts.

Gen Ed Attributes: Social Sciences

**SOCI 220S - Race, Gender & Class. 3 Credits.**

Offered autumn. Analysis of the intersecting structure and dynamics of race, gender and class. Focus on power relationships, intergroup conflict and minority-group status.

Gen Ed Attributes: Social Sciences, Democracy and Citizenship

**SOCI 221 - Criminal Justice System. 3 Credits.**

Offered spring. A systematic survey of crime and the administration of justice in the United States, including the organizational structures, processes, and dynamics of law enforcement, criminal adjudication, and corrections.

**SOCI 225 - Careers in Criminology. 3 Credits.**

Offered spring. Overview of criminology-focused career paths with an emphasis on learning from professionals in the field and development of career planning competencies.

**SOCI 275S - Gender and Society. 3 Credits.**

Offered intermittently. Exploration of the social construction of gender, especially in western, post-industrial societies such as the U.S.; gender ideologies affect the social definition and position of gendered individuals in work, family, sexual relationships, gendered divisions of labor, and social movements.

Gen Ed Attributes: Social Sciences

**SOCI 291 - Special Topics. 1-6 Credits.**

(R-24) Offered intermittently. Experimental offerings of visiting professors, experimental offerings of new courses, or one-time offerings of current topics.

**SOCI 301E - Criminal Justice Ethics. 3 Credits.**

Offered spring. This course will be an examination of competing moral philosophies and their application to ethical dilemmas within the criminal justice system.

Gen Ed Attributes: Ethical & Human Values

**SOCI 306 - Sociology of Work. 3 Credits.**

Offered intermittently. Prereq., WRIT 101. Restricted to students in the Sociology and Criminology majors and minors. An introduction to contemporary sociological debates on work including overwork, working poor, housework, globalization, mechanization, routinization, surveillance, and unions. Special focus on gender and class impacts on working life.

Gen Ed Attributes: Writing Across the Curriculum

**SOCI 318 - Sociological Research Methods. 3 Credits.**

Offered every term. SOCI 202 or STAT 216 or PSYX 222 recommended. Restricted to students in the Sociology and Criminology majors and minors. Methods of research in the social sciences including naturalistic observation, interviewing, measurement, experiments, surveys, content analysis, and basic data analysis.

**SOCI 325 - Social Stratification. 3 Credits.**

Offered intermittently. The origins, institutionalization and change of class, status, prestige, power and other forms of social inequality. Special attention to the effects of stratification on individuals.

**SOCI 329 - Green Criminology. 3 Credits.**

Green criminology explores the intersection of environmental issues with criminal activity and behavior, examining how environmental harms are defined as criminal (versus legal) acts, and evaluating the criminal justice system's response to these issues. It considers the diverse range of victims affected by environmental offenses, including ecological systems, species health, and human behavior. In essence, green criminology aims to create a critical space within its parent discipline for analyzing crimes committed against humanity through environmental destruction.

**SOCI 332 - Sociology of the Family. 3 Credits.**

Offered intermittently. Historical, cross-cultural, and analytical study of the family. Emphasis on ideology, social structures, and agency affecting family composition and roles.

**SOCI 335 - Juvenile Justice System. 3 Credits.**

Offered intermittently. An analysis of the juvenile justice system in the United States, including the historical development of policies and practices. The role of various social agencies in defining, preventing, and responding to delinquency.

**SOCI 346 - Rural Sociology. 3 Credits.**

Offered intermittently. Demographic, economic and sociocultural change in rural communities with an emphasis on global economy, political structure, urbanization, and economic and social infrastructure. Special attention given to the rural west and Montana.

**SOCI 359 - Crime, Justice, and Media. 3 Credits.**

A critical analysis of portrayals of crime and justice in politics, news, and entertainment media, including comparisons between historical and contemporary portrayals.

**SOCI 362 - Sociology of Law Enforcement. 3 Credits.**

Offered intermittently. An examination of policing in society, with emphasis on the cultural context in which it occurs, its structural characteristics, and social psychological processes.



**SOCI 376 - Comparative Criminology. 3 Credits.**

Offered intermittently. An overview of macro-criminology, including an examination of macro-theoretical perspectives, cross-national variation in crime, and a comparative analysis of criminal justice systems around the world.

**SOCI 380 - Sociology of Health & Medicine. 3 Credits.**

Offered intermittently. Restricted to students with at least junior standing in the Sociology and Criminology majors and minors. This course examines the healthcare system, the social determinants of health, the historical epidemiological transition(s), medicalization, and changes in medical profession. Broadly, this course assists students in analyzing issues related to medicine, health, and healthcare from a sociological perspective.

Gen Ed Attributes: Writing in the Disciplines

**SOCI 391 - Special Topics. 1-6 Credits.**

(R-24) Offered intermittently. Experimental offerings of visiting professors, experimental offerings of new courses, or one-time offerings of current topics.

**SOCI 398 - Internship. 1-6 Credits.**

(R-6) Offered autumn and spring. Restricted to students in the Sociology and Criminology majors. Extended classroom experience that provides practical application of classroom learning during placements off campus. Prior approval must be obtained from the faculty supervisor. A maximum of 6 credits of Internship (198, 298, 398, 498) may count toward graduation.

**SOCI 414 - Family Violence. 3 Credits.**

This course is an advanced seminar on domestic violence/family violence examining the nature of domestic violence, causes of family violence, and potential solutions. We discuss specific forms of family violence, including intimate partner violence, child abuse and neglect, and elder abuse. We also examine societal reactions to family violence in the form of police, legal, and community responses. Level: Undergraduate-Graduate

**SOCI 420 - Violence in America. 3 Credits.**

This course surveys the trends, nature, patterns, and causes of violence in the United States of America. Blending criminological, sociological, and psychological perspectives on violent behavior, the course reviews various types of violence, including serial and mass murder, youth and school violence, violence among intimates and family members, as well as the role of firearms. The effectiveness of various criminal justice responses is also examined, including intervention strategies, gun control, incarceration, and capital punishment. Level: Undergraduate

**SOCI 422 - Sociology of Punishment. 3 Credits.**

Prereq., SOCI 101S. An examination of variation in punishment across societal contexts which addresses sociological theory and research on mass incarceration, capital punishment, and corporal punishment among other sanctions. Level: Undergraduate-Graduate

**SOCI 423 - Sociology of Corrections. 3 Credits.**

Offered intermittently. An examination of the purposes, structures, and processes of jails, prisons, and community corrections, including probation and parole. Emphasis on historical development and current trends and issues in corrections. Level: Undergraduate-Graduate.

**SOCI 425 - Victims and Society. 3 Credits.**

Restricted to students with at least junior standing in the Sociology and Criminology majors. This course surveys the field of victimology, addressing the extent of victimization in the U.S. It examines the dominant theoretical explanations for victimization, and it discusses the causes and consequences of victimization, including the behavioral and psychological reactions to being a victim of crime. It examines victimization in a wide range of contexts and a wide range of victims.

Level: Undergraduate-Graduate

Gen Ed Attributes: Writing in the Disciplines

**SOCI 426 - Sociology of Immigration. 3 Credits.**

This course examines theories of immigration, immigration experiences and adaptation, and social, political, and legal responses to immigration.

Level: Undergraduate

**SOCI 437 - Communities and Crime. 3 Credits.**

This course examines sociological theories and research on communities and crime, including spatial variation in crime rates and the impact of efforts to control crime on the structure and well-being of communities. The class takes a holistic approach to understanding how crime comes "bundled together" with other social problems at the community level.

Level: Undergraduate-Graduate

**SOCI 439 - Advanced Criminological Theory. 3 Credits.**

Offered spring. Restricted students with at least junior standing in the Sociology and Criminology majors and minors. This course surveys the field of criminological theory, which attempts to understand and explain crime. It examines a range of major theories, including classic theories and their modern revisions. It also focuses on recent research testing and expanding criminological theories. Level: Undergraduate-Graduate

**SOCI 440 - Deviant and Criminal Behavior. 3 Credits.**

An analysis of the causes and theoretical perspectives of deviance, crime, and antisocial behavior. Level: Undergraduate-Graduate

**SOCI 443 - Sociology of Poverty. 3 Credits.**

Offered intermittently. Restricted to students with at least junior standing. An examination of the roots, prevalence, and social characteristics of poverty. Analysis of policies intended to end poverty. Level: Undergraduate-Graduate

**SOCI 450 - Gender, Crime, and Justice. 3 Credits.**

This course will examine the role of gender throughout the criminal justice system. Focus will be placed on victimization, incarceration, and the reentry of female offenders. Moreover, this course will examine women professionals in the criminal justice system such as police officers, corrections staff, and court service providers. Level: Undergraduate-Graduate

**SOCI 451 - Race, Crime, and Criminal Justice. 3 Credits.**

This course addresses the empirical relationship between race and crime and its theoretical explanations. This course addresses offending and victimization patterns and trends and introduces the major theories used to make sense of these trends. This includes providing an overview of existing research which examines how race influences criminal justice outcomes. Finally, the course addresses public attitudes about race and crime, including how race motivates attitudes and policies about crime and justice in the United States. Level: Undergraduate

**SOCI 455 - Classical Sociological Theory. 3 Credits.**

Offered autumn. Prereq., SOCI 101S. Exploration of the classical foundations of sociological theories, emphasizing Marx, Durkheim, and Weber. Required of all sociology majors. Level: Undergraduate-Graduate

**SOCI 469 - Homicide. 3 Credits.**

Offered autumn. Restricted students with at least junior standing in the Sociology and Criminology majors. This course is a specialized introduction and overview of homicide as a societal and criminological phenomenon. The course focuses broadly on criminological, interdisciplinary, and psychiatric perspectives about homicide offending and victimization. Level: Undergraduate-Graduate  
Gen Ed Attributes: Writing in the Disciplines

**SOCI 470 - Environmental Sociology. 3 Credits.**

Offered intermittently. Introduction to environmental sociology and the social dimensions of environmental change. Case studies of major environmental problems as applications of environmental sociological perspectives. Level: Undergraduate-Graduate

**SOCI 475 - Work, Labor, and the Criminal Justice System. 3 Credits.**

This course explores the intersection of work and the criminal justice system in the U.S. by examining the experiences of unpaid (incarcerated) and paid workers (corrections/probation/police officers, etc) in the system. We'll also investigate the influence of the criminal justice system on the American labor market and solutions to problems with work in the system such as collective action, regulations, and legislation. Level: Undergraduate-Graduate

**SOCI 490 - Undergraduate Research. 1-12 Credits.**

(R-12) Independent research under the direction of a faculty member. Level: Undergraduate

**SOCI 491 - Special Topics. 1-6 Credits.**

(R-24) Offered intermittently. Experimental offerings of visiting professors, experimental offerings of new courses, or one-time offerings of current topics. Level: Undergraduate-Graduate

**SOCI 492 - Independent Study. 1-3 Credits.**

(R-9) Offered every term. Restricted to students in the Sociology and Criminology majors. Individual work with a faculty supervisor in an area of special interest. Proposals must be approved by department chair. Level: Undergraduate-Graduate

**SOCI 494 - Seminar/Workshop. 2-3 Credits.**

Offered intermittently. Selected sociological topics. Level: Undergraduate-Graduate

**SOCI 498 - Service Learning Internship. 1-6 Credits.**

(R-6) Offered every term. Prereq., SOCI 101S, SOCI 202, and SOCI 318. Restricted to students with at least junior standing. Extended classroom experience that provides practical application of classroom learning during placements off campus. Prior approval must be obtained from the faculty supervisor. A maximum of 6 credits of Internship (198, 298, 398, 498) may count toward graduation. Level: Undergraduate

**SOCI 520 - Contemporary Social Theory. 3 Credits.**

Offered intermittently. Restricted to graduate students in Sociology. The major sociological theories developed since World War I, including an examination of the critical issues under debate. Level: Graduate

**SOCI 538 - Seminar in Crime & Deviance. 3 Credits.**

(R-9) Offered every term. Restricted to graduate students in Sociology. Graduate-level studies of a specific criminological topic or issue with special emphasis on theory, research, policy, and practice. Level: Graduate

**SOCI 561 - Qualitative Methods. 3 Credits.**

Offered spring even-numbered years. Restricted to graduate students in Sociology. Introduction to the basic methods used to conduct qualitative studies including ethnography, interviewing, observation and/or focus group. Includes hands-on fieldwork projects, data coding and analysis, and research ethics. Draws on examples and literature from sociology. Level: Graduate

**SOCI 562 - Quantitative Methods. 3 Credits.**

Offered autumn. Restricted to graduate students in Sociology. Introduction to the basic methods used to conduct quantitative sociological research and program evaluation including proposal development, survey design, sampling techniques, data analysis, and dissemination of findings. Level: Graduate

**SOCI 563 - Social Data Analysis. 3 Credits.**

Offered intermittently. Restricted to graduate students in Sociology. Introduction to basic techniques of quantitative data analysis emphasizing multivariate regression analysis. Students will learn how to prepare a dataset, assure that basic statistical assumptions are met, correctly estimate and interpret regression coefficients, estimate regression models using data analysis software (SPSS). Level: Graduate

**SOCI 590 - Graduate Research. 1-6 Credits.**

(R-9) Offered every term. Directed individual research and study appropriate to the background and objectives of the student. Those students electing the professional paper option in Sociology may apply three credits of this course toward the master's degree. Level: Graduate

**SOCI 591 - Special Topics. 1-12 Credits.**

(R-12) Offered intermittently. Restricted to graduate students in Sociology. Experimental offerings of visiting professors, experimental offerings of new courses, or one-time offerings of current topics. Level: Graduate

**SOCI 592 - Independent Study. 1-6 Credits.**

(R-6) Offered every term. Restricted to graduate students in Sociology. Course material appropriate to the needs and objectives of the individual student. Level: Graduate

**SOCI 594 - Graduate Seminar. 3 Credits.**

(R-9) Offered intermittently. Restricted to graduate students in Sociology. Selected sociological topics. Level: Graduate

**SOCI 598 - Internship. 1-6 Credits.**

(R-6) Offered autumn and spring. Restricted to graduate students in Sociology. Extended classroom experience that provides practical application of classroom learning during placements off campus. Prior approval must be obtained from the faculty supervisor. Level: Graduate

**SOCI 599 - Thesis. 1-6 Credits.**

(R-6) Offered every term. Restricted to graduate students in Sociology. Preparation of a master's thesis. Level: Graduate

## South & Southeast Asian Studies (SSEA)

**SSEA 191 - Special Topics. 1-6 Credits.**

(R-6) Offered intermittently. Experimental offerings by visiting professors, experimental offerings of new courses, and/or one-time offerings of current topics.

**SSEA 202X - Introduction to India. 3 Credits.**

Offered alternate years. This course introduces students to the history, economy, political and legal system, society, culture, religions, and literary and artistic traditions of India, which is the world's largest secular democracy and the birthplace of four major world religions.

Gen Ed Attributes: Historical Studies, Cultural & International Diversity

**SSEA 328L - Gender Sexuality India. 3 Credits.**

Examines the changing representation of gender and sexuality in Indian films over the last six decades. India has the largest film industry in the world, and films are the most important cultural unifier in the country. We will look at gender and sexuality in relation to religion, family, and the state, examining women's changing roles, heterosexuality, homosexuality, bisexuality and transgender, patterns of kinship and friendship.

## Spanish (SPNS)

**SPNS 101 - Elementary Spanish I. 4 Credits.**

Offered autumn. Emphasis on oral communication, with development in all major skill areas: listening, speaking, reading and writing.

**SPNS 102 - Elementary Spanish II. 4 Credits.**

Offered spring. Prereq., SPNS 101. Continuation of SPNS 101.

Gen Ed Attributes: Language Requirement

**SPNS 172 - SIGE: Introduction to Spain. 3 Credits.**

Offered every semester. Restricted to students in the Spanish Institute for Global Education (SIGE) program. Taught at SIGE in Seville, Spain, by SIGE instructors. This course, taught in Spanish, is designed to facilitate rapid immersion in host-family activities, the academic and social cultures of the local universities in which students might be taking classes, and the daily life of the student's surroundings in Seville and Spain.

**SPNS 181 - SIGE: Summer Intensive Spanish Grammar & Conversation. 3,6 Credits.**

Offered summer. Restricted to students in the Spanish Institute for Global Education (SIGE) program. Taught at SIGE in Seville, Spain, by SIGE instructors. This course, taught in Spanish, offers intensive conversation, culture, grammar, and writing within the classroom with linguistic and cultural skills reinforced outside the classroom through immersion in the daily life of a Sevillian host family and engagement in the life of the city.

Gen Ed Attributes: Language Requirement

**SPNS 191 - Special Topics. 1-9 Credits.**

(R-9) Offered intermittently. Experimental offerings of visiting professors, experimental offerings of new courses, or one-time offerings of current topics.

**SPNS 201 - Intermediate Spanish I. 4 Credits.**

Offered autumn. Prereq., SPNS 102. Continued practice in the oral skills with added emphasis on grammar and reading proficiency.

Gen Ed Attributes: Language Requirement

**SPNS 202 - Intermediate Spanish II. 4 Credits.**

Offered spring. Prereq., SPNS 201. Continuation of SPNS 201.

Gen Ed Attributes: Language Requirement

**SPNS 272 - SIGE: Introduction to Spain. 3 Credits.**

Offered every semester. Prereq., SPNS 101. Restricted to students in the Spanish Institute for Global Education (SIGE) program. Taught at SIGE in Seville, Spain, by SIGE instructors. This course, taught in Spanish, is designed to facilitate rapid immersion in host-family activities, the academic and social cultures of the local universities in which students might be taking classes, and the daily life of the student's surroundings in Seville and Spain.

**SPNS 280 - SIGE: Spain Today Social & Political Change. 3 Credits.**

Offered every term. Prereq., SPNS 202. Restricted to students in the Spanish Institute for Global Education (SIGE) program. Taught at SIGE in Seville, Spain, by SIGE instructors. This course, taught in Spanish, expands knowledge of literature, cinema, and social, political, and economic problems in modern Spanish society.

Gen Ed Attributes: Language Requirement

**SPNS 281 - SIGE: Summer Intensive Spanish Grammar & Conversation. 3,6 Credits.**

Offered summer. Prereq., SPNS 101. Restricted to students in the Spanish Institute for Global Education (SIGE) program. Taught at SIGE in Seville, Spain, by SIGE instructors. This course, taught in Spanish, offers intensive conversation, culture, grammar, and writing within the classroom with linguistic and cultural skills reinforced outside the classroom through immersion in the daily life of a Sevillian host family and engagement in the life of the city.

Gen Ed Attributes: Language Requirement

**SPNS 291 - Special Topics. 1-9 Credits.**

(R-9) Offered intermittently. Experimental offerings of visiting professors, experimental offerings of new courses, or one time offerings of current topics.

**SPNS 292 - Independent Study. 1-6 Credits.**

(R-6) Offered autumn and spring. Course material appropriate to the needs and objectives of the individual student.

**SPNS 301 - Spanish: Oral and Written Expression. 3 Credits.**

Offered autumn and spring. Prereq., SPNS 202. Development of oral and written skills with an emphasis on Hispanic cultural context.

Gen Ed Attributes: Language Requirement

**SPNS 305 - Spanish Phonetics. 3 Credits.**

Offered once each academic year. Prereq., SPNS 202. A practical and theoretical exploration of the Spanish sound system.

**SPNS 308 - Intensive Spanish Abroad. 1-9 Credits.**

(R-9) Offered spring. Prereq., SPNS 202. Intensive Spanish language course to coincide with intensive language course given at an institute or college during the Spanish Study Abroad Program. Credits vary according to the hours and intensity of the course and are determined by the director of the program.

**SPNS 315 - Topics in Hispanic Culture. 3 Credits.**

Prereq., WRIT 101. This course offers a rigorous and comprehensive study of a major author, work, cultural phenomena, or relevant issue in the Spanish-speaking world.

Gen Ed Attributes: Writing in the Disciplines

**SPNS 321 - Advanced Conversations. 3 Credits.**

Offered intermittently. Prereq., SPNS 202. Intensive practice in oral Spanish through individual presentations, vocabulary and grammar work, and film discussion and analysis.

**SPNS 326 - Contemporary Spanish Literature. 3 Credits.**

Offered autumn and spring. Prereq., SPNS 202. The study of contemporary works by peninsular authors, including an introduction to literary genres.

**SPNS 331 - Cultures and Societies of Latin America. 3 Credits.**

Offered autumn and spring. Prereq., SPNS 202. An interdisciplinary introduction to Latin American culture, society, and history with emphasis on contemporary aspects.

**SPNS 345 - Bilingualism in the Spanish-Speaking World. 3 Credits.**

Offered intermittently. Prereq., SPNS 202. Spanish, one of the most widely spoken languages in the world, is often found in contact with other languages in a variety of social and linguistic landscapes. These contact situations allow us to examine the types, characteristics, and outcomes of bilingualism. This course will delve into many important aspects of bilingualism, such as language maintenance and loss, characteristics of bilingual speech, cognitive aspects of bilingualism, and language acquisition.

**SPNS 353 - SIGE: The City and The Image. 3 Credits.**

Offered every semester. Prereq., SPNS 202. Restricted to students in the Spanish Institute for Global Education (SIGE) program. Taught at SIGE in Seville, Spain, by SIGE instructor. This course, taught in Spanish, enriches Spanish comprehension and expression skills through applied use of language in the context of learning technical skills, planning and completing a creative project, and discussing work of professional photographers.

Gen Ed Attributes: Language Requirement

**SPNS 354 - SIGE: History Through Spanish Gastronomy. 3 Credits.**

Offered every semester. Prereq., SPNS 202. Restricted to students in the Spanish Institute for Global Education (SIGE) program. Taught at SIGE in Seville, Spain, by SIGE instructors. This course, taught in Spanish, is a combination of history, culture, and gastronomy and teaches the relationship between Spanish food and culture and, thereby, socio-cultural aspects of Spain.

Gen Ed Attributes: Language Requirement

**SPNS 356 - SIGE: Literature & Seville. 3 Credits.**

Offered every semester. Prereq., SPNS 202. Restricted to students in the Spanish Institute for Global Education (SIGE) program. Taught at SIGE in Seville, Spain, by SIGE instructors. This course, taught in Spanish, expands knowledge of Spanish literature, links classical and contemporary Spanish writing to historical and contemporary social, political, and economic phenomena, and deepens understanding of the place of literature in the contemporary life of Seville.

Gen Ed Attributes: Language Requirement

**SPNS 372 - SIGE: Introduction to Spain. 3 Credits.**

Offered every semester. Prereq., SPNS 201. Restricted to students in the Spanish Institute for Global Education (SIGE) program. Taught at SIGE in Seville, Spain, by SIGE instructors. This course, taught in Spanish, is designed to facilitate rapid immersion in host-family activities, the academic and social cultures of the local universities in which students might be taking classes, and the daily life of the student's surroundings in Seville and Spain.

**SPNS 381 - SIGE: Summer Intensive Spanish Grammar & Conversation. 3,6 Credits.**

Offered summer. Prereq., SPNS 201. Restricted to students in the Spanish Institute for Global Education (SIGE) program. Taught at SIGE in Seville, Spain, by SIGE instructors. This course, taught in Spanish, offers intensive conversation, culture, grammar, and writing within the classroom with linguistic and cultural skills reinforced outside the classroom through immersion in the daily life of a Sevillian host family and engagement in the life of the city.

Gen Ed Attributes: Language Requirement

**SPNS 391 - Special Topics. 1-9 Credits.**

(R-9) Offered intermittently. Experimental offerings of visiting professors, experimental offerings of new courses, or one-time offerings of current topics.

**SPNS 392 - Independent Study. 1-6 Credits.**

(R-12) Course material appropriate to the needs and objectives of the individual student.

**SPNS 398 - Internship. 1-6 Credits.**

(R-6) Extended classroom experience that provides practical application of classroom learning during placements off campus. Prior approval must be obtained from the faculty supervisor. A maximum of 6 credits of Internship (198, 298, 398, 498) may count toward graduation.

**SPNS 400 - Introduction to Spanish Linguistics. 3 Credits.**

Offered autumn. Prereq., SPNS 305. Topics in Spanish linguistics with an emphasis on Spanish morphology, syntax and semantics. Level: Undergraduate-Graduate

**SPNS 408 - Spanish: Advanced Composition & Conversation. 3 Credits.**

Offered spring. Prereq., SPNS 301. Intensive practice in writing on different levels of usage and style, combined with guided oral practice. Level: Undergraduate-Graduate

**SPNS 432 - Latin American Literature. 3 Credits.**

(R-6) Prereq., SPNS 326 or SPNS 331. Emphasis on major works of the 20th century. Level: Undergraduate-Graduate

**SPNS 465 - Spanish Literature: Renaissance and Golden Age. 3 Credits.**

(R-6) Offered autumn even-numbered years. Prereq., SPNS 326 or 331. Emphasis on major works of the Renaissance and the Spanish Golden Age. Level: Undergraduate-Graduate

**SPNS 466 - Spanish Literature: Modern & Contemporary. 3 Credits.**

(R-6) Offered spring even-numbered years. Prereq., SPNS 326 or SPNS 331. Emphasis on major works of modern and contemporary Spanish literature. Level: Undergraduate-Graduate

**SPNS 491 - Special Topics. 1-9 Credits.**

(R-9) Offered intermittently. Experimental offerings of visiting professors, experimental offerings of new courses, or one-time offerings of current topics. Level: Undergraduate-Graduate

**SPNS 492 - Independent Study. 1-6 Credits.**

(R-6) Offered autumn and spring. Course material appropriate to the needs and objectives of the individual student. Level: Undergraduate-Graduate

**SPNS 494 - Seminar. 1-12 Credits.**

(R-12) Prereq., SPNS 326 or SPNS 331. A review and discussion of current research. Topics vary. Level: Undergraduate-Graduate

**SPNS 498 - Internship. 1-6 Credits.**

(R-6) Extended classroom experience that provides practical application of classroom learning during placements off campus. Prior approval must be obtained from the faculty supervisor. A maximum of 6 credits of Internship (198, 298, 398, 498) may count toward graduation. Level: Undergraduate



**SPNS 499 - Senior Thesis/Capstone. 3 Credits.**

Offered in both the fall and spring. This course is designed to be a culminating experience in which the student will demonstrate skills and knowledge garnered from his/her experience within the Spanish Option. We will offer two possibilities for the Capstone: 1) The student can research, write and revise an extensive research paper under the supervision of a Spanish faculty member. The capstone topic selected will directly relate to the language, literature, culture, history and/or civilization of the Spanish-speaking peoples of the world. 2) The student can fulfill a high impact field experience or internship experience as the culminating activity in the program. In this case, students can demonstrate their knowledge, skills, and values in a wide variety of ways. Field experiences and internships may be evaluated by both a faculty member and a field supervisor under whom the student is working. Evaluations may consist of check sheets and evaluation forms that the supervisor and faculty complete both during and at the end of the experience, notes from advisory meetings with the student during the experience, and materials that the student produces during the experience, perhaps gathered into a portfolio. Level: Undergraduate

**SPNS 591 - Special Topics. 1-6 Credits.**

(R-24) Offered intermittently. Experimental offerings of visiting professors, experimental offerings of new courses, or one-time offerings of current topics. Level: Graduate

**SPNS 594 - Graduate Seminar. 3 Credits.**

(R-6) Offered intermittently. A review and discussion of current research. Topics vary. Level: Graduate

## Speech Language Pathology (SLP)

**SLP 510 - Counseling in Speech-Language Pathology. 1 Credit.**

Theoretical perspectives on counseling clients with communication and swallowing disorders with an emphasis on counseling strategies, grief and loss, and working with family members. Level: Graduate

**SLP 520 - Speech Sound Disorders. 3 Credits.**

Restricted to graduate students in Speech-Language Pathology. Theoretical perspectives on phonological and articulation disorders with emphasis on application to clinical management including evaluation, assessment techniques, and intervention strategies. Level: Graduate.

**SLP 530 - Voice & Resonance Disorders. 3 Credits.**

Restricted to graduate students in Speech-Language Pathology. Study of anatomy, physiology, and pathology of voice. Neural bases of normal and disordered voice and resonance. Diagnosis and management of voice and resonance disorders. Level: Graduate.

**SLP 535 - Motor Speech Disorders. 3 Credits.**

Restricted to graduate students in Speech-Language Pathology. Study of anatomy, physiology, and pathology of the speech mechanism. Neural bases of normal and disordered speech motor control. Assessment and treatment of motor speech disorders. Level: Graduate

**SLP 540 - Fluency Disorders. 2 Credits.**

Restricted to graduate students in Speech-Language Pathology. This course focuses on the nature, diagnosis, and treatment of developmental stuttering and cluttering and acquired neurogenic and psychogenic stuttering. Students examine assessments of historic and current literature and trends in stuttering research and treatment. Culturally responsive assessment and intervention as well as the multidimensional nature of stuttering are addressed. Level: Graduate.

**SLP 545 - Social Communication Skills, Behavior, and Neurodiversity. 2-3 Credits.**

Restricted to graduate students in Speech-Language Pathology. This course explores and integrates social aspects of communication (e.g., behavioral and social skills/competence), communication accommodations, adaptations, and strategies for functional communication and independent living skills. Topics include foundational information on autism as well as assessment and treatment using evidence-based practices for autism spectrum disorder and related disorders. Co-convenes with CSD 445. Level: Graduate.

**SLP 546 - Augmentative & Alternative Communication. 1-2 Credits.**

Restricted to graduate students in Speech-Language Pathology. This course explores and integrates communication accommodations, adaptations, and links to functional and daily-living in individuals with severe to complex communication disorders. This includes a focus on assessment and treatment processes and practices for individuals requiring alternative and augmentative communication needs across the lifespan, cultures, and abilities. Level: Graduate

**SLP 550 - Language Assessment and Intervention for Children Infants through Preschool. 3 Credits.**

Students learn language assessment and intervention for children with language delays and disorders from birth to preschool including language sampling and analysis procedures, interpreting formal and informal testing, facilitating language through strategies and corresponding theories, planning clinical management and intervention, and enhancing emergent literacy. Level: Graduate

**SLP 560 - Dx /Tx School-Age Lang. 3 Credits.**

Restricted to graduate students in Speech-Language Pathology. This course examines various approaches to working with children and adolescents with language and learning disabilities. Practical application of language assessment procedures, individualized planning, and language-literacy intervention strategies will be discussed. Language-literacy interventions in the classroom and collaborative strategies will also be covered. Culturally responsive assessment and intervention, as well as the multidimensional nature of language in the classroom will be addressed. Level: Graduate

**SLP 561 - Evidence Based Practice in Rehabilitation and Education. 1-3 Credits.**

Restricted to graduate students in Speech-Language Pathology. Students should have a framework for understanding, using, and applying the evidence-based practice trilogy (client values, clinical expertise, research) in rehabilitation and Education practice. Students will gain exposure to writing style in research, ethics, and evaluating evidence in clinical application. Level: Graduate.

**SLP 565 - Aphasia. 3 Credits.**

Restricted to graduate students in Speech-Language Pathology. Neural bases and medical etiologies of aphasia in adult populations. Evaluation and treatment of aphasia in persons with acquired neurologic disorders across successive stages of recovery. Incorporates models of rehabilitation across prevention, assessment, and treatment, with a focus on the WHO-ICF and aspects of disability across diverse populations. Level: Graduate.



**SLP 566 - Acquired Cognitive-Communication Disorders. 3 Credits.**

Restricted to graduate students in Speech-Language Pathology. Assessment, treatment, and prevention of acquired cognitive-communication disorders including pediatric and adult traumatic brain injury (TBI) and mild traumatic brain injury (MTBI), right hemisphere syndrome (RHS), and dementia. Emphasis on neurobiological principles of rehabilitations, differential diagnosis and theories, and evidence-based research pertaining to clinical management. Level: Graduate

**SLP 570 - Clinic Proc/Pro Pract I. 1 Credit.**

(R-3) Restricted to graduate students in Speech-Language Pathology. This course provides content focused on the professional practices, processes, attributes, and abilities associated with professional accountability, ethics, integrity, effective communication skills, clinical reasoning, evidence-based practice, and collaborative practice. In addition clinical consideration of multicultural aspects of communication are considered of clients from all ages, backgrounds, and abilities. Links to clinical application in associated applied classes are made. Level: Graduate

**SLP 571 - Found Applied Clinic Srv/Lrn. 1-6 Credits.**

(R-9) Restricted to graduate students in Speech-Language Pathology. Foundational Application of professional skills associated with the UM DeWit RiteCare Clinic. Assignment of cases and area of specialization will vary with clinical educator assignment. Level: Graduate

**SLP 575 - Advanced Clinic Proc II. 1-3 Credits.**

(R-3) Prereq., SLP 570. Coreq., SLP 576. This course provides content focused on continued development of topics related to professional development as a speech-language pathologist and will support the clinical externship experience. Emphasis on professional practices and processes, ASHA and state compliance, clinical problem solving, evidence based practice, employment settings considerations, self-advocacy, communication, and multicultural considerations. Level: Graduate

**SLP 576 - Advanced Applied Clinic II. 1-12 Credits.**

(R-18) Prereq., SLP 570. Advanced application of professional skills in the UM RiteCare Clinic or off-campus. Assignment of cases and area of specialization will vary with the clients needs and availability. Out of state placement by approval of clinical director. Level: Graduate

**SLP 580 - Diagnostics. 3 Credits.**

Restricted to graduate students in Speech-Language Pathology. Students will develop the following skills: using case history information to form a diagnostic plan; administering various standardized and non-standardized diagnostic tools; interpreting assessment results; writing diagnostic reports; and sharing diagnostic results with clients, caregivers and other professionals. Level: Graduate

**SLP 588 - Master of Science Capstone Portfolio. 3 Credits.**

Prereq., or corequisite, SLP 600. An integration evidence-based practice foundations in Speech-Language Pathology. This course requires comprehensive portfolios that include a best-evidence systematic literature review, a clinical philosophy reflecting current learning theory, and evidence of application of current best practices. Level: Graduate

**SLP 591 - Special Topics. 1-6 Credits.**

(R-6) Experimental offerings of visiting professors, experimental offerings of new courses, or one-time offerings of current topics. Level: Graduate

**SLP 592 - Independent Study. 1-6 Credits.**

(R-6) Course material appropriate to the needs and objectives of the individual student. Level: Graduate

**SLP 594 - Graduate Seminar. 1-12 Credits.**

(R-12) A review and discussion of current research. Topics vary. Level: Graduate

**SLP 595 - Practicum. 1-12 Credits.**

Supervised, practical experience in a professional setting relevant to the student's field of study. Level: Graduate

**SLP 599 - Thesis. 1-6 Credits.**

(R-9) Prereq., SLP 600. The primary purpose of the thesis is to allow a student to conduct a research project in a particular field of study related to speech and language pathology. Course graded only on CR/NCR basis. Level: Graduate

**SLP 600 - Research Methods. 3 Credits.**

Restricted to graduate students in Speech-Language Pathology. Research methodologies appropriate for quantitative and qualitative studies in communication sciences and disorders. Focuses on critical reading of research papers, design, and implementation of experiments. Level: Graduate

**SLP 640 - Swallowing Disorders. 3 Credits.**

Restricted to graduate students in Speech-Language Pathology. Study of anatomy, physiology, and pathology of swallowing. Diagnosis and treatment of swallowing disorders. Level: Graduate

**SLP 675 - Clinical Externship & Advanced Practicum. 1-12 Credits.**

(R-12) Prereq., SLP 570, SLP 571, SLP 575, and SLP 576. The course is an externship completed during a student's final semester of graduate school requiring 30-40 hours a week participation. Out of state placements approved by the clinical externship coordinator. Level: Graduate

**SLP 681 - Topics in Language Science. 2 Credits.**

Restricted to doctoral students in Speech, Language, and Hearing Sciences. This course will explore techniques used to scientifically investigate language development, language function/processing, and language disorders.

**SLP 682 - Topics in Speech Science. 2 Credits.**

Restricted to doctoral students in Speech, Language, and Hearing Science. This course will explore techniques used to scientifically investigate speech development and speech disorders.

**SLP 683 - Topics in Hearing Science. 2 Credits.**

Restricted to doctoral students in Speech, Language, and Hearing Science. This course will explore techniques used to scientifically investigate hearing development and disorders.

**SLP 689 - Professional Seminar. 1 Credit.**

(R-9) This doctoral level seminar is designed to help develop research, teaching, and professional skills required for post-doctoral employment. Sessions will be conducted in a face-to-face (on-campus or via synchronous web-based videoconferencing) format. Each week invites active student engagement in several types of activities, including: reading, writing, reviewing/editing, engaging in discussions, and presenting research and/or teaching modules.

**SLP 690 - Research. 1-3 Credits.**

(R-30) Research including scholarly inquiry, investigation, or creative activity that follows appropriate conventions, is guided by an academic mentor, and produces original intellectual or creative work. Offered CR/ NCR only. Level: Graduate

**SLP 691 - Special Topics. 1-5 Credits.**

(R-6) Experimental offerings of visiting professors, experimental offerings of new courses, or one-time offerings of current topics. Level: Graduate

**SLP 692 - Independent Study. 1-6 Credits.**

(R-6) This course is an intensive exploration of a discipline, interdisciplinary practice, or theory not available through regularly scheduled courses. A student performs coursework in consultation with and supervised by a faculty member. The course of study is aligned with the needs and learning objectives of the individual student. Level: Graduate

**SLP 694 - Seminar. 1-12 Credits.**

(R-12) A review and discussion of current research. Topics vary. Level: Graduate

**SLP 695 - Practicum. 1-3 Credits.**

(R-9) Supervised, practical experience in a professional setting relevant to the student's field of study. Level: Graduate

**SLP 696 - Service Learning: Professional Service. 1-6 Credits.**

This course is a collaboration between students, faculty, and community partners to enhance student learning by applying academic knowledge in a community service context. Student service addresses community identified needs and meets learning objectives through faculty/community-structured service. It incorporates critical reflection to prepare students to be civically engaged members of the community. Level: Graduate

**SLP 698 - Internship. 1-6 Credits.**

(R-6) This internship is an opportunity for practical application of classroom learning through professional, career-related work experiences. All interns have a set of learning objectives, a faculty advisor, and site supervisor. There is opportunity for performance feedback from faculty and/or supervisor. The interns' work benefits a business, nonprofit, or government agency. Level: Graduate

**SLP 699 - Dissertation. 1-9 Credits.**

(R-9) Dissertation research activities. Graded only on CR/NCR basis. Level: Graduate.

## Statistics (STAT)

**STAT 216 - Introduction to Statistics. 4 Credits.**

Offered autumn and spring. Prereq., M 115 (preferred); or one of M 121, M 132, M 140, M 151, M 162 or M 171; or EdReady placement level 3; or M02-MapleSoft Algebra score  $\geq 14$ ; or ACT score of 23; or SAT score of 560 (with the new test); or ACT score of 21 and HS GPA 3.5; or SAT score of 530 and HS GPA 3.5. Introduction to major ideas of statistical inference. Emphasis is on statistical reasoning and uses of statistics. Gen Ed Attributes: Math Competency

**STAT 292 - Independent Study. 1-6 Credits.**

(R-6) Offered intermittently. Course material appropriate to the needs and objectives of the individual student.

**STAT 342 - Probability and Simulation. 3 Credits.**

Offered autumn and spring. Prereq., M 162 or M 172. Probability, probability models and simulation, random variables, density functions, special distributions, and an introduction to statistical inference. Computer use integrated throughout.

**STAT 421 - Probability Theory. 3 Credits.**

Offered autumn. Prereq., M 273. STAT 342 is recommended. Fundamentals of probability; discrete and continuous random variables; expected value; variance; joint, marginal, and conditional distributions; conditional expectations; applications; simulation; central limit theorem; order statistics. Level: Undergraduate-Graduate

**STAT 422 - Mathematical Statistics. 3 Credits.**

Offered spring. Prereq., STAT 421. Introduction to the theory of point estimation, interval estimation, and hypothesis testing. Level: Undergraduate-Graduate

**STAT 451 - Statistical Methods I. 3 Credits.**

Offered autumn. May not be counted toward a major in mathematics except toward the mathematics education concentration. Intended primarily for non-mathematics majors who will be analyzing data. Graphical and numerical summaries of data, elementary sampling, designing experiments, probability as a model for random phenomena and as a tool for making statistical inferences, random variables, basic ideas of inference and hypothesis testing. Level: Undergraduate-Graduate

**STAT 452 - Statistical Methods II. 3 Credits.**

Offered spring. Prereq., STAT 451. Continuation of STAT 451. Multiple regression, experimental design, analysis of variance, other statistical models. Level: Undergraduate-Graduate

**STAT 457 - Computer Data Analysis I. 1 Credit.**

Offered autumn. Coreq., STAT 451. An introduction to software for doing statistical analyses. Intended primarily for students in STAT 451. Level: Undergraduate-Graduate

**STAT 458 - Computer Data Analysis II. 1 Credit.**

Offered spring. Coreq., STAT 452. Continuation of STAT 457. Intended primarily for students in STAT 452. Level: Undergraduate-Graduate

**STAT 491 - Special Topics. 1-9 Credits.**

(R-9) Offered autumn and spring. Experimental offerings of visiting professors, experimental offerings of new courses, or one time offerings of current topics. Level: Undergraduate-Graduate

**STAT 542 - Applied Linear Models. 3 Credits.**

Offered autumn even-numbered years. Prereq., STAT 422. Numerical and graphical data summaries, simple linear and multiple regression and analysis of variance, including estimation, hypothesis testing, residual analysis, diagnostics, and model-building strategies. Use of the computer and real data sets integrated throughout. Level: Graduate

**STAT 544 - Topics in Probability and Statistics. 3 Credits.**

(R-12) Offered intermittently. Prereq., STAT 422. May include theory of nonparametric statistics, generalized linear models, stochastic processes or other topics chosen by the instructor. Level: Graduate

**STAT 545 - Theory of Linear Models. 3 Credits.**

Offered autumn odd-numbered years. Prereq., STAT 422. Multivariate normal distribution, distribution of quadratic forms, estimation and hypothesis testing in the full rank and less than full rank general linear models. Level: Graduate

**STAT 640 - Graduate Seminar in Probability and Statistics. 1-12 Credits.**

(R-12) Offered autumn and spring. A review and discussion of current research. Level: Graduate

## Surveying (SRVY)

**SRVY 108 - Construction Surveying. 2 Credits.**

Offered autumn. Offered at Missoula College. Basic principles of surveying and the use of surveying equipment. Calculation of angles and distances to determine grade elevations. Introduction to Global Positioning Systems, lasers and their relationship to the heavy equipment operator.

**SRVY 230 - Intro to Surveying for Engineers. 3 Credits.**

Offered spring. Offered at Missoula College. Basic principles of civil surveying and the use of surveying equipment. Surveying introduces students to the link between field (construction) and office (design) practices. Students will become familiar with Global Positioning Systems (GPS), levels, level rods, total stations, basic survey computations, and their relationship to Computer Design Systems.

## Theatre (THTR)

**THTR 101L - Introduction to Theatre. 3 Credits.**

The various elements of play production and dance. The basic artistic principles underlying dance, theatre and all of the arts.

Gen Ed Attributes: Literary & Artistic Studies

**THTR 102A - Introduction to Theatre Design. 3 Credits.**

Basic understanding of the principles of design for the theatre and television, including the production elements of scenery, costumes and lighting.

Gen Ed Attributes: Expressive Arts

**THTR 103 - Introduction to House Management. 1 Credit.**

(R-3) Offered autumn and spring. Introduction to the skills and experience of the front-of-house staff for a theatrical production.

**THTR 106 - Theatre Production I: Run Crew. 1 Credit.**

(R-6) Offered autumn and spring. Operation and running a show backstage on a scenery, costume, or prop crew for a major school production.

**THTR 107A - Theatre Production I: Construction Crew. 3 Credits.**

(R-9) Offered autumn and spring. The construction and completion of scenery/props, costumes, and/or lighting under supervision. Most assignments involve very basic construction techniques and/or maintenance duties found in professional shop. Involves minimum of two 4-hour labs a week.

Gen Ed Attributes: Expressive Arts

**THTR 113A - Introduction to Voice Acting. 3 Credits.**

This course introduces foundational techniques of voice acting, emphasizing the development of articulate, responsive, and expressive vocal skills. Students will explore various genres from animation to video games while learning to optimize technology to create engaging voice performances. Additionally, students will analyze and critique voice acting work, enhancing both their creative and technical abilities.

Gen Ed Attributes: Expressive Arts

**THTR 120A - Introduction to Acting I. 3 Credits.**

An introduction to the skills and techniques required of the actor to be effective in communication with others on stage and off stage.

Gen Ed Attributes: Expressive Arts

**THTR 155 - Drawing Fundamentals for Theatre. 3 Credits.**

Students will begin to develop skills in drawing the human form, perspective, and architecture.

**THTR 191 - Special Topics/Experimental Courses. 1-6 Credits.**

(R-6) Experimental offerings of visiting professors, experimental offerings of new courses, or one-time offerings of current topics.

**THTR 194 - Seminar: First Year. 1-8 Credits.**

Offered autumn. Provides incoming majors with fundamental academic skills and an overview of campus student support services, as well as an introduction to policies and procedures specific to the School of Theatre and Dance and the professional options available in the performing arts.

**THTR 202 - Stagecraft I. 3 Credits.**

Offered autumn. Fundamental theories and hands-on application in the areas of costuming, lighting, scenery, and properties.

**THTR 203 - Stagecraft II: Scenery & Props. 3 Credits.**

Fundamental theories and hands-on application in the areas of scenery, properties, and rigging.

**THTR 205 - Theatre Workshop II. 1-8 Credits.**

(R-8) Credit for students engaged in any aspect of production including acting, directing, lighting, stagecraft, makeup, costumes, properties, business and publicity.

**THTR 206 - Theatre Production II: Run Crew. 1 Credit.**

(R-6) Offered autumn and spring. Prereq., THTR 106. Operation and running a show backstage, as in scenery, costumes, or props for a major school production.

**THTR 207 - Theat Prod II: Constr Crew. 3 Credits.**

(R-6) The construction and completion of scenery/props, costumes, and/or lighting. Advanced construction assignments and/or maintenance duties found in professional shop; possible supervision of a small construction crew. Involves minimum of two 4-hour labs a week.

**THTR 210 - Voice & Speech I. 2 Credits.**

Offered autumn. Voice production, phonetics, and speech for the stage.

**THTR 211 - Voice & Speech II. 3 Credits.**

Offered spring. Prereq., THTR 210. Character voices, which broadly encompass dialects and accents.

**THTR 220 - Acting I. 3 Credits.**

Offered autumn. Studio class intended to cultivate skill sets necessary for those with a background or interest in the craft of acting, especially those considering a career in the performing arts (theatre, music, dance, film, broadcasting): observation, imagination, concentration, improvisation, and character.

**THTR 221 - Acting II. 3 Credits.**

Offered spring. Prereq., THTR 220. Continuation of THTR 220. Scene study and characterization, utilizing modern and contemporary scripts.

**THTR 235L - Dramatic Literature. 3 Credits.**

The study of representative theatre texts as a foundation for play analysis.

Gen Ed Attributes: Literary & Artistic Studies

**THTR 239A - Creative Drama/Dance: K-8. 2 Credits.**

Offered autumn and spring. Restricted to majors in Elementary Education and Early Childhood Education: P-3. Focus on the use of creative drama and dance as types of educational tools. Students will explore, experience, and implement creative teaching methods in order to promote scholarship through kinesthetic teaching in elementary education.

Gen Ed Attributes: Expressive Arts

**THTR 245 - Int Costume Construction. 3 Credits.**

Offered spring. Prereq., THTR 202. Intermediate costume construction focusing on the development of skills needed to function as a stitcher.

**THTR 249 - Stage Makeup I. 1 Credit.**

Principles of and practice in makeup for the stage.

**THTR 255 - Drafting for Theatre I. 3 Credits.**

Offered spring. Drawing techniques for the theatre with an emphasis on drafting as utilized by technicians, designers, stage managers and directors.

**THTR 256 - Intermediate Scenery Construction. 3 Credits.**

Prereqs., THTR 107A, THTR 202, and THTR 255 or 355. Advances students' skills in scenic carpentry through practical application of construction drafting, construction planning, project management, advanced layout processes, advanced tool usage, and team management. Students will realize projects to be used in current and future School of Theatre and Dance productions.

**THTR 264 - Advanced Electrics. 3 Credits.**

Prereq., THTR 202. Training for the position of Lead Electrician. Practical application of production planning, lighting paperwork, overseeing lighting crews, advanced electrical theory, power distribution, and creative problem solving. Students will work on major school productions.

**THTR 291 - Special Topics. 1-6 Credits.**

(R-6) Offered intermittently. Experimental offerings of visiting professors, experimental offerings of new courses, or one-time offerings of current topics.

**THTR 292 - Independent Study. 1-12 Credits.**

(R-12) Offered autumn and spring. Course material appropriate to the needs and objectives of the individual student.

**THTR 294 - Seminar. 1-6 Credits.**

(R-6) A review and discussion of current research. Topics vary.

**THTR 305 - Theatre Workshop III. 1-20 Credits.**

(R-20) Advanced laboratory production in all the arts of the theatre.

**THTR 306 - Summer Theatre. 1-12 Credits.**

(R-12) Offered summer. Practicum in school-approved summer theatre companies in the capacity of actor, designer, director, stage manager and/or technician.

**THTR 307 - Production Construction I. 3 Credits.**

(R-12) Offered autumn and spring. Prereq., THTR 107A. Students serve as the construction/maintenance crew in a shop (sound, light, costume, or scenery) for university productions.

**THTR 308 - Production Team I. 1-12 Credits.**

(R-12) Offered autumn and spring. Students function as part of the production team in a role of responsibility (i.e., assistant designer, designer, lead electrician, cutter, first hand, head carpenter, etc.) for a school production. These assignments and duties often serve as part of the required junior project.

**THTR 309 - Production Design I. 1-12 Credits.**

(R-12) Offered autumn and spring. Students function as a member of the production team in a role of responsibility (i.e., scenic designer, costume designer, light designer, etc.) for a school production. These assignments and duties may serve also as part of the required junior project.

**THTR 310 - Voice and Speech III. 3 Credits.**

Offered autumn. An advanced exploration of voice acting skills and techniques culminating in the application of industry standards and best practices to recorded and live performances.

**THTR 311 - Voice and Speech IV: Poetic Language. 3 Credits.**

Offered spring. Integration of voice and speech skills, vocal character.

**THTR 315 - Movement for the Actor I. 3 Credits.**

Offered spring. Prereq., THTR 221. Basics of physical performance: collaboration, concentration, centering, balance, agility, and body awareness through a variety of stage movement techniques.

**THTR 316 - Movement for the Actor II. 3 Credits.**

Offered autumn. Prereq., THTR 315. Physical characterization: exploring weight, rhythm, tempo, and kinesthetic relationships using techniques such as Laban and Michael Chekhov.

**THTR 320 - Acting III. 3 Credits.**

Offered autumn. Prereq., THTR 221. Process-based and systematic approach to scene work, character development and rehearsal, focusing on new and emerging playwrights of the contemporary era (21st century).

**THTR 321 - Advanced Acting: Practitioners. 3 Credits.**

Offered spring. Restricted to students in Theatre. This course will introduce a variety of contemporary theatre and actor-training methods to interrogate contemporary scripts. Students perform selected scenes using chosen strategies from the methodologies studied.

**THTR 322 - Musical Theatre Audition Techniques. 2 Credits.**

Offered spring. Prereq., THTR 320. A foundational studio course which focuses on the development and practice of musical-theatre audition skills. The course will comprise specialized training in requisite areas of singing, acting, dancing and materials preparation pertaining to the format, demands and performance of musical-theatre auditions.

**THTR 323 - Auditioning. 1 Credit.**

Offered fall. Prereq., THTR 120A or 220. A studio course focusing on the development and practice of audition skills, including material selection and techniques. The course will also offer practice in a variety of auditioning circumstances, including monologue delivery, callbacks, and auditioning with a reader.

**THTR 330H - Theatre History I. 3 Credits.**

Offered autumn. A survey of the major developments of the theatre from ritual beginnings to the 19th century, including various cultures and their representative plays and performances throughout the world.

Gen Ed Attributes: Historical Studies, Writing Across the Curriculum

**THTR 331 - Theatre History II. 3 Credits.**

Offered spring. Prereq., WRIT 101 or equivalent and THTR 330H. Continuation of THTR 330H. The many and varied periods since the 19th century as reflected in the theatre of the times in America, Europe and throughout the world.

Gen Ed Attributes: Writing in the Disciplines

**THTR 332 - Dramaturgy. 3 Credits.**

Prereq., THTR 330H. Introduction to the work of the dramaturg; to literary, historical, and contextual analysis of play scripts and performance pieces intended for production; and to building study guides and/or other resources.

**THTR 336 - Costume History. 3 Credits.**

Offered intermittently. History of costume from prehistory to the present day.

**THTR 340 - Costume Design I. 3 Credits.**

Offered autumn. Prereq., THTR 102A and THTR 202. Introduction to principles and practices of stage costume design.

**THTR 345 - Pattern Making I. 3 Credits.**

Prereq., THTR 245. Pattern design using the flat pattern and draping method of basic pattern shapes to create basic costume and clothing patterns, gaining advanced principles of fitting.

**THTR 346 - Textile Selection & Manipulation. 3 Credits.**

Analysis of fibers, yarns, structures and finishes, as related to selection and use for the theatre. Basic dyeing, distressing and painting.

**THTR 349 - Stage Makeup II. 1 Credit.**

Prereq., THTR 249. Continuation of THTR 249. Advanced techniques in makeup design and application including specialty work in prosthetics, hair and wig, advanced character makeup, and understanding both cultural sensitivity and makeup resources for underserved populations.



**THTR 350 - Scenic Design I. 3 Credits.**

Offered autumn. Prereq., THTR 102A and THTR 202. Introduction to the problems encountered in designing scenery, analyzing of script, research and practical demands of theatre conventions. Projects include those for theatre, musicals, opera, and dance.

**THTR 351 - Production Design for Film and Television. 3 Credits.**

Introduction to the basic elements of production design for film and television. Students will be exposed to the basics of visual storytelling, including script analysis for production design, storyboards, shot composition, visual research, drafting, and pre-production planning. Students will also gain an understanding of location versus studio work and film versus television design.

**THTR 353 - Technical Direction. 1-3 Credits.**

Offered intermittently. Prereq., THTR 255. Training for position of technical director. The role and scope of technical direction, production scheduling, design analysis, budgets and bookkeeping, and methods of construction.

**THTR 355 - Computer Aid Draft & Applications. 3 Credits.**

(R-6) Offered autumn. Prereq., THTR 255. Computer drafting for scenery, costumes, lighting, and sound design drawings, including 2-D and 3-D plans, layouts and renderings. Work with CAD, photo manipulation, spreadsheet, database, and word processing programs.

**THTR 356 - Scenic Painting. 3 Credits.**

(R-6) Offered spring. Introduction to the basic skills needed as a scenic artist. Emphasis on the varied materials and techniques used in the scenic studio, color mixing, and interpretation of the designer's work.

**THTR 357 - Properties Management. 1 Credit.**

(R-8) Offered autumn and spring. Provides students with the necessary skills and training to serve as a properties manager for a theatrical production. Students participate in the production process, learning through hands on activities and practical training and guidance in the acquisition and/or construction of all props for a given production/show.

**THTR 360 - Theatre Lighting I. 3 Credits.**

Offered autumn. Prereq., THTR 102A, 202. Introduction to principles and practices of theatre lighting design. Training for position of lighting designer for theatre. Design requirements and decisions, color, development of stage picture; concentration on proscenium theatre design concepts.

**THTR 364 - Lighting Programming. 2 Credits.**

Training for students to serve as programmers in the professional world of live performance. Computer systems for control of lighting will be covered in depth as well as additional exposure to systems for sound and projection. Exploration of networking systems together to control a combination of the areas.

**THTR 365 - Sound for Performance I. 3 Credits.**

Prereq., THTR 202. Training in the engineering and design of sound systems used in performance venues. Practical exploration of microphones and speakers for recording and public address. Equipment and methods of operation for supporting the needs of sound in a production.

**THTR 370 - Stage Management I. 3 Credits.**

Offered autumn. Prereq., THTR 202. Beginning study of the duties of the stage manager concentrating on the rehearsal process in the non-professional theatre situation.

**THTR 371 - Stage Management Practicum I. 1-3 Credits.**

(R-6) Offered autumn and spring. Prereq., THTR 370. Stage management practicum involving stage managing a showcase production or assistant stage managing a major show. Involves evening work.

**THTR 375 - Directing I. 3 Credits.**

Prereq., THTR 120A or THTR 220; THTR 235L; THTR 330H. Introduction to the analytical skills, staging, and conceptual techniques of the director; includes some practical application in scene work.

**THTR 380 - Playwriting. 3 Credits.**

(R-6) Offered intermittently. Techniques and practice in writing short and full-length plays.

**THTR 391 - Special Topics/Experimental Courses. 1-9 Credits.**

(R-15) Offered intermittently. Experimental offerings of visiting professors, experimental offerings of new courses, or one-time offerings of current topics.

**THTR 392 - Independent Study. 1-12 Credits.**

(R-12) Offered autumn and spring. Course material appropriate to the needs and objectives of the individual student.

**THTR 394 - Seminar. 1-6 Credits.**

(R-6) A review and discussion of current research. Topics vary.

**THTR 395 - Practicum. 1-3 Credits.**

(R-18) Offered autumn and spring. Service learning experience in theatre in a setting compatible with the students major and interests.

**THTR 398 - Internship. 1-6 Credits.**

(R-6) Offered intermittently. Extended classroom experience that provides practical application of classroom learning during placements off campus. Prior approval must be obtained from the faculty supervisor. A maximum of 6 credits of Internship (198, 298, 398, 498) may count toward graduation.

**THTR 405 - Professional Theatre. 9 Credits.**

(R-18) Laboratory experience in total play production through participation in state, regional, national and international touring production programs. Level: Undergraduate

**THTR 406 - Professional Technology and Production. 1-9 Credits.**

(R-18) Students experience the rigors and develop the skills required of technicians in touring theatre, maintaining integrity of all production elements through three months of intensive travel and varying venues. Level: Undergraduate

**THTR 407 - Production Construction II. 1-12 Credits.**

(R-12) Offered autumn and spring. Students serve as construction crew in one of the shops for productions. Level: Undergraduate

**THTR 408 - Production Team II. 1-12 Credits.**

(R-12) Offered autumn and spring. Students serve as a member of the production team in a role of responsibility (i.e., assistant designer, designer, lead electrician, cutter, first hand, head carpenter, etc.) for major productions. These assignments and duties often serve as part of the required senior project. Level: Undergraduate

**THTR 409 - Production Design II. 1-12 Credits.**

(R-12) Offered autumn and spring. Students serve as a member of the production team in a role of designer (i.e., set designer, costume designer, light designer, etc.) for major productions. These assignments and duties may serve also as part of the required senior project. Level: Undergraduate

**THTR 410 - Advanced Acting: Musical Theatre. 2 Credits.**

(R-4) Offered spring. Requires an audition. Development and presentation of musical numbers in a dramatic context. A broad-based acquaintance with music theatre literature is acquired, and techniques for approaching songs are explored with an eye toward developing competency in music theatre forms. Co-convenes with THTR 510. Level: Undergraduate



**THTR 415 - Stage Combat. 3 Credits.**

Topics include unarmed stage combat, basic armed combat, and physical performance safety methods and procedures. Students will present the skills learned in the performance of scenes including fight choreography. Level: Undergraduate-Graduate

**THTR 416 - Movement for the Actor III. 3 Credits.**

Offered spring. Advanced specialized physical skills such as period styles, advanced combat/choreography, and commedia. Level: Undergraduate

**THTR 420 - Advanced Acting: Comedy Styles. 3 Credits.**

Offered autumn. Restricted to students in Theatre. Scenes and projects from specific historical and contemporary comedy styles. Level: Undergraduate

**THTR 421 - Advanced Acting: Classics. 3 Credits.**

Offered spring. Restricted to students in Theatre. Selected speeches, scenes and projects from verse drama, especially Shakespeare. Level: Undergraduate

**THTR 423 - Professional Performance. 1-9 Credits.**

(R-18) Students experience the rigors and develop the skills required for actors in touring theatre; creating characters and maintaining consistent performances through three months of intensive travel and varying venues. Level: Undergraduate-Graduate

**THTR 425 - Advanced Acting: Devising. 3 Credits.**

Offered autumn. Restricted to students in Theatre. Performance and scene work in contemporary practice and theory, using devising techniques across performance disciplines. Level: Undergraduate

**THTR 426 - Advanced Acting: Special Skills. 3 Credits.**

Restricted to students in Theatre. Developing actors' skills in specialized areas such as acting for new media, genre-specific performance, clowning, commedia, improvisation, classical repertoire, or other specialized topics dependent upon faculty and/or guest faculty areas of expertise. Level: Undergraduate

**THTR 439 - Methods of Teaching Theatre. 3 Credits.**

(R-6) Building and addressing specific curriculum in theatre arts. Level: Undergraduate

**THTR 440 - Costume Design II. 3 Credits.**

(R-9) Offered spring. Prereq., THTR 340. Advanced techniques in costume design; possible topics include design for dance, opera, large scale drama and musicals. Level: Undergraduate

**THTR 445 - Advanced Pattern Making. 3 Credits.**

Prereq., THTR 345. Pattern design using the flat pattern and draping method of advanced costume and clothing patterns, gaining advanced principles of fitting. Level: Undergraduate-Graduate

**THTR 447 - Tailoring. 3 Credits.**

Offered spring alternate years. Principles used in the construction of tailored garments. Level: Undergraduate-Graduate

**THTR 450 - Scene Design II. 3 Credits.**

Offered spring. Prereq., THTR 350. A continuation of the techniques and projects in THTR 350. Level: Undergraduate

**THTR 456 - Advanced Scene Painting. 3 Credits.**

(R-9) Offered spring. Prereq., THTR 356. Students will explore advanced scene painting techniques. Level: Undergraduate

**THTR 460 - Theatre Lighting II. 3 Credits.**

Offered spring. Prereq., THTR 360. Advanced study of principles and practices of theatre lighting design. Training for position of light designer for theatre. Design requirements and decisions, color, development of stage picture; thrust and arena theatre. Level: Undergraduate

**THTR 465 - Sound for Performance II. 3 Credits.**

Offered spring. Prereq., THTR 365. Advanced study of sound systems and operation for performance based productions. In-depth training in programmable playback systems such as QLab and Isadora. Training to prepare for professional positions as a sound designer, lead engineer, or related position. In-depth exploration of equipment and techniques for producing sound in performance venues. Level: Undergraduate

**THTR 470 - Stage Management II. 3 Credits.**

Offered intermittently. Prereq., THTR 370. Additional study of stage management concentrating on pre-rehearsal duties, aspects of maintaining a show's integrity as established by the director, inter-production relationships, supervision of crews and union contracts. Understanding a stage manager's need for paperwork and writing skills. Students encouraged to enroll in THTR 472 to use skills in a living situation. Level: Undergraduate

**THTR 472 - Stage Management Practicum II. 3 Credits.**

(R-9) Offered autumn and spring. Prereq., THTR 470. Stage managing a major show in the drama season in the Montana or Masquer Theatres or assistant stage managing for an Equity stage manager on a Montana Repertory Theatre production. Level: Undergraduate

**THTR 475 - Directing II. 3 Credits.**

Offered autumn. Prereq., THTR 375. Directing skills for the advanced student; extensive scene work. Level: Undergraduate-Graduate

**THTR 476 - Directing III. 3 Credits.**

Offered spring. Prereq., THTR 475. Continuation of THTR 475. Course material coordinated with laboratory projects. Level: Undergraduate-Graduate

**THTR 481 - Advanced Acting: Personal Performance. 3 Credits.**

Prereq., THTR 321. Developing personal performance skills. Level: Undergraduate

**THTR 482 - Advanced Acting: Solo Performance. 3 Credits.**

Prereq., THTR 481. Creating solo performance material from original material or existing texts. Level: Undergraduate

**THTR 484 - Advanced Acting: Professional Skills. 1 Credit.**

Offered spring. Developing professional skills, material for the actor, professional portfolio, resume audition material, commercial acting, performance market research. Level: Undergraduate-Graduate

**THTR 485 - Theatre for Social Justice. 3 Credits.**

This course explores ways in which drama can be used as a tool to examine, bring awareness to, and affect social issues, including equality, health care, education, trauma, politics, and the penal system. Level: Undergraduate-Graduate

**THTR 490 - Undergraduate Research. 1-12 Credits.**

(R-12) Independent research under the direction of a faculty member. Level: Undergraduate

**THTR 491 - Special Topics. 1-9 Credits.**

(R-9) Experimental offerings of visiting professors, experimental offerings of new courses, or one-time offerings of current topics. Level: Undergraduate-Graduate

**THTR 492 - Independent Study. 1-12 Credits.**

(R-24) Course material appropriate to the needs and objectives of the individual student. Level: Undergraduate

**THTR 494 - Seminar. 2 Credits.**

(R-6) A review and discussion of current research. Topics vary. Level: Undergraduate

**THTR 495 - Practicum. 1-3 Credits.**

(R-9) Supervised, practical experience in a professional setting relevant to the student's field of study. Level: Undergraduate

**THTR 498 - Internship. 1-6 Credits.**

(R-6) Offered intermittently. Extended classroom experience that provides practical application of classroom learning during placements off campus. Prior approval must be obtained from the faculty supervisor. A maximum of 6 credits of Internship (198, 298, 398, 498) may count toward graduation. Level: Undergraduate

**THTR 499 - Senior Project. 1 Credit.**

Offered autumn and spring. Restricted to students in Theatre with senior standing. The student, with approval from their advisor, will begin a project during the semester prior to the semester of his/her graduation. An in-depth paper and brief defense of the project are required. Level: Undergraduate

**THTR 501 - Introduction to Graduate Studies. 1 Credit.**

Offered autumn. Introduction to basic research and writing skills. Level: Graduate

**THTR 505 - Professional Theatre. 9 Credits.**

(R-18) Offered spring. Laboratory experience in total play production through participation in state, regional, national, and international touring production programs. Level: Graduate

**THTR 506 - Graduate Summer Theatre. 1-3 Credits.**

(R-6) Offered summer. Practicum in school-approved summer theatre companies in the capacity of actor, designer, director, stage manager and/or technician. The student and instructor will meet prior to the students registration for the course in order to determine the proper credit load and work expectations for the course. Student will earn credit for said work in consultation with Director of the School and outside producing company, with credit correlating to significance of above-listed duties. Level: Graduate

**THTR 507 - Technical Production Assignment. 2-4 Credits.**

(R-12) Offered autumn and spring. Production assignment made by the faculty. Student assigned a responsible technical position such as technical director, lead electrician, sound engineer, cutter/drafter, head carpenter, or scenic artist. Credit variable and will be assigned by faculty. Level: Graduate

**THTR 508 - Design Production Assignment. 2-4 Credits.**

(R-24) Offered autumn and spring. Production design assignment made by the faculty. Student designs an element of a Theatre & Dance production with the supervision of a faculty designer. Level: Graduate

**THTR 509 - Technical Direction Practicum. 3 Credits.**

(R-12) Offered autumn and spring. Technical direction of a major show in the drama season in the Montana or Masquer Theatres. Level: Graduate

**THTR 510 - Graduate Musical Theatre. 2 Credits.**

(R-4) Offered spring. Development and presentation of musical numbers in a dramatic context. A broad-based acquaintance with music theatre literature is acquired, and techniques for approaching songs are explored with an eye toward developing competency in music theatre forms. Co-convenes with THTR 410. Level: Graduate

**THTR 512 - Problems in Voice and Speech. 1-3 Credits.**

(R-12) Offered intermittently. Development of specific advanced skills in vocal work. Level: Graduate

**THTR 513 - Graduate Voice & Speech I. 3 Credits.**

Offered autumn. Studio training with extensive focus on exercises designed to foster awareness of how the body, breath, voice, resonance, and enunciation are the artists tactics when acting. Level: Graduate

**THTR 514 - Graduate Voice & Speech II. 3 Credits.**

Offered spring. Continuation of THTR 513; advanced studio encompassing standard speech, character voice, accent and dialect-acquisition studies. Level: Graduate

**THTR 515 - Graduate Physical Performance Skills. 3 Credits.**

Offered autumn. Investigation of the history and methodology of major physical-performance models. Studio work resulting in exercises and scene work to accompany each discipline explored. Level: Graduate

**THTR 517 - Problems in Physical Performance. 1-3 Credits.**

(R-12) Offered autumn and spring. Development of specific advanced skills in physical performance. Level: Graduate

**THTR 520 - Graduate Acting I. 3 Credits.**

(R-12) Offered autumn. Intensive rehearsal and project work with emphasis on integration of advanced skills. Level: Graduate

**THTR 521 - Graduate Acting II. 3 Credits.**

Offered spring. Continuation of THTR 520; intimate exploration of monologues, scene work, and contemporary techniques. Level: Graduate

**THTR 525 - Problems in Acting. 1-3 Credits.**

(R-18) Offered autumn and spring. Development of specific advanced skills in acting. Level: Graduate

**THTR 526 - Studio Training I. 3 Credits.**

Offered autumn. Scenes and projects from specific historical and contemporary comedy styles. Level: Graduate

**THTR 527 - Studio Training II. 3 Credits.**

Offered spring. Work in speeches, scenes, and projects from Shakespeare and other classical verse drama. Level: Graduate

**THTR 528 - Studio Training III. 3 Credits.**

Offered autumn. Performance and scene work in contemporary practice and theory. Course will additionally familiarize students with contemporary performance theory and criticism. Level: Graduate

**THTR 529 - Studio Training IV. 3 Credits.**

Offered spring. Developing professional skills, material for the actor, professional portfolio, resume audition material, commercial acting, performance market research, and knowledge about unions. Level: Graduate

**THTR 530 - Graduate Seminar in Dramatic Literature. 3 Credits.**

(R-9) Offered intermittently. Selected topics with individual research projects presented in seminar concerning various genres, periods, and themes in dramatic literature. Level: Graduate

**THTR 531 - Graduate Seminar in Theatre History. 3 Credits.**

(R-9) Offered intermittently. Selected topics and issues with individual research projects presented in seminar concerning various genres, periods, themes, and cultural contexts in theatre history. Level: Graduate

**THTR 532 - Graduate Seminar in Dramaturgy. 3 Credits.**

A graduate-level introduction to literary, historical, and contextual analysis of play scripts and performance pieces intended for production. Level: Graduate

**THTR 535 - Performance Theory & Criticism. 3 Credits.**

Offered spring. Survey of the theories, elements and ingredients of multi-cultural live performance forms, including theatre, popular entertainment, ceremonies, and other public events. Includes instruction in and application of various approaches to the criticism of live performance. Level: Graduate

**THTR 539 - Graduate Methods Teaching Theatre. 3 Credits.**

In-depth study of teaching methods for presenting the craft of acting and theatre production to introductory-level students. Co-convenes with THTR 439. Level: Graduate

**THTR 540 - Graduate Costume Design. 3 Credits.**

(R-12) Offered autumn and spring. Further advancement of techniques in costume design using script/character analysis, color/texture/form usage, and presentation. Possible designs for dance, opera, large-scale drama and musicals. Co-convenes with THTR 440. Level: Graduate

**THTR 542 - Problems in Costume Design. 3 Credits.**

(R-12) Offered autumn and spring. Development of specific technical skills in costume design. Level: Graduate

**THTR 544 - Graduate Pattern Making I. 3 Credits.**

Pattern design using the flat pattern method, pattern drafting of various garment parts, and advanced principles of fitting. This course will introduce students to the basics of costume flat patterning. Level: Graduate

**THTR 545 - Graduate Design Seminar: Collaboration. 2 Credits.**

This course is designed to teach graduate students effective research, collaboration, and script-analysis methodologies and exploration practices in a collaborative setting as well as strategies to work most effectively, efficiently, and productively as part of a team. Level: Graduate

**THTR 546 - Graduate Design Seminar: Freelancing. 2 Credits.**

This course familiarizes students with the process of gaining and maintaining a freelance career in their field. Through exercises and discussion, students polish and expand their professional packages to self-market, build and maintain contacts, and keep records of designs and contracts. Also discussed is planning for how to balance workloads and financial needs. Level: Graduate

**THTR 550 - Graduate Scene Design. 3 Credits.**

(R-12) Offered autumn and spring. Development of specific design skills in scenery through unrealized design opportunities as well as design concept and process development. Co-convenes with THTR 450. Level: Graduate

**THTR 552 - Problems in Scene Design. 3 Credits.**

(R-12) Offered autumn and spring. Development of specific technical skills in scene design. Level: Graduate

**THTR 553 - Technical Direction. 3 Credits.**

Offered autumn and spring. Role and scope of technical direction, production scheduling, design analysis, budgets and bookkeeping and methods of construction. Level: Graduate

**THTR 555 - Graduate Computer Aided Drafting and Application. 3 Credits.**

(R-6) Offered autumn. Students will further their understanding for how CAD software is used to create complete, accurate draftings for design and technology in theatre and theatre-related activities. Level: Graduate

**THTR 556 - Graduate Rendering Techniques. 2 Credits.**

Offered spring. Students will begin to develop personal design styles using both traditional and digital drawing and rendering techniques. Level: Graduate

**THTR 557 - Graduate Scenic Painting. 3 Credits.**

Introduction to the intermediate and advanced skills needed as a scenic artist. Emphasis on the varied materials and techniques used in the scenic studio, color mixing, and interpretation of the designer's work. Level: Graduate

**THTR 560 - Graduate Light Design. 3 Credits.**

(R-12) Offered autumn and spring. Advanced study of principles and practices of theatre lighting design, especially collaboration and communication. Training for position of light designer for theatre or lighting instructor. Design requirements and decisions, color, development of stage picture; thrust and arena theatre. Co-convenes with THTR 460. Level: Graduate

**THTR 562 - Problems in Light Design. 3 Credits.**

(R-12) Offered autumn and spring. Development of specific technical skills in light design. Level: Graduate

**THTR 565 - Graduate Sound for Performance. 3 Credits.**

(R-12) Offered autumn and spring. Training in the engineering and design of sound systems used in performance venues. Practical exploration of microphones and speakers for recording and public address. Equipment and methods of operation for supporting the needs of sound in a production. Research and exploration of sound aesthetics and technology in other cultures, periods and regions. Co-convenes with THTR 465. Level: Graduate

**THTR 567 - Problems in Sound Design. 3 Credits.**

(R-12) Offered autumn and spring. Development of specific technical skills in sound design. Level: Graduate

**THTR 570 - Graduate Stage Management. 3 Credits.**

Offered autumn. Study of duties of stage manager in rehearsal and performance process. Includes stage managing a production for a faculty or guest-artist director. Level: Graduate

**THTR 572 - Stage Management Practicum. 1-6 Credits.**

(R-18) Offered autumn and spring. Practical work in stage management projects. Level: Graduate

**THTR 574 - Problems in Theatre Management. 1-6 Credits.**

(R-18) Offered intermittently. Development of specific technical skills in theatre management. Level: Graduate

**THTR 577 - Directing IV. 3 Credits.**

Offered autumn. Formalist styles of dramatic material. Through a variety of tools, textual and linguistic analysis, metrical and rhetorical analysis, archetypes, and musical structures, students analyze, interpret and stage projects drawn from opera and pre-modern drama, especially Shakespeare. Level: Graduate

**THTR 578 - Directing V. 3 Credits.**

Offered spring. Exploration of image, time manipulation, and nonlinear storytelling. Level: Graduate

**THTR 580 - Problems in Playwriting. 1-3 Credits.**

(R-12) Offered intermittently. Development of specific advanced writing projects based on dramatic structure, conflict, tension, and character complexities/psychology. Level: Graduate

**THTR 590 - Research. 1-6 Credits.**

(R-24) Offered autumn and spring. Independent research under the direction of a faculty member. Level: Graduate

**THTR 591 - Special Topics. 1-18 Credits.**

(R-18) Offered autumn and spring. Experimental offerings of visiting professors, experimental offerings of new courses, or one-time offerings of current topics. Level: Graduate

**THTR 592 - Independent Study. 1-6 Credits.**

(R-24) Offered autumn and spring. Course material appropriate to the needs and objectives of the individual student. Level: Graduate

**THTR 594 - Seminar. 1-3 Credits.**

(R-12) Offered intermittently. A review and discussion of current research. Topics vary. Level: Graduate

**THTR 595 - Practicum. 1-3 Credits.**

(R-12) Supervised, practical experience in a professional setting relevant to the student's field of study. Level: Graduate

**THTR 597 - Educational Methods. 1-6 Credits.**

(R-24) Educational methods in theatre. Level: Graduate

**THTR 598 - Internship. 2-6 Credits.**

(R-24) Offered intermittently. Extended classroom experience that provides practical application of classroom learning during placements off campus. Prior approval must be obtained from the faculty supervisor. Level: Graduate

**THTR 599 - Thesis/Professional Paper/Final Creative Project. 1-10 Credits.**

(R-10) Offered autumn and spring. Preparation of a thesis, manuscript, or professional paper based on research for presentation and/or publication or an in-house project that takes the form of a capstone directing assignment or acting role in a university production. A paper detailing and reflecting upon the process accompanies the creative work. Level: Graduate

**THTR 609 - Graduate Design Project. 2 Credits.**

Students serve in one or more design roles of the production team for major theatre and dance events, working from conceptual stage to realized production. Level: Graduate

**THTR 645 - Graduate Design Seminar: Teaching. 2 Credits.**

This course is designed to teach the knowledge and skills needed to become effective teachers at the college/university level, including gaining and retaining a teaching position. Students enrolled will actively engage in discussions about teaching and participate in a mock recruitment process by developing a teaching statement, teaching portfolio, CV, and interview lecture and syllabus. Level: Graduate

**THTR 646 - Graduate Design Seminar: Outreach. 2 Credits.**

This course is designed to extend beyond the walls of a theatre. Students will study methods of developing service-learning projects for the community and how outreach can benefit both the public and their particular performing-arts entity. Level: Graduate

**THTR 675 - Directing VI. 3 Credits.**

Offered autumn. The history and literature of directing. Level: Graduate

**THTR 677 - Problems in Directing. 1-3 Credits.**

(R-18) Offered autumn and spring. Development of specific technical skills in directing. Level: Graduate

**THTR 698 - Internship. 1-6 Credits.**

(R-6) Extended classroom experience that provides practical application of classroom learning during placements off campus. Prior approval must be obtained from the faculty supervisor. Level: Graduate

## Welding (WLDG)

**WLDG 101 - Welding Fundamentals of Auto Tech and Diesel. 2 Credits.**

Offered autumn. Offered at Missoula College. Basic and intermediate processes of shielded metal arc welding (SMAW) and oxyacetylene welding are covered in flat, horizontal, and vertical positions in a variety of joint configurations. Instruction in the oxyacetylene cutting process. This course is designed for Diesel students only.

**WLDG 103 - Welding Fundamentals of Construction Trades. 2 Credits.**

Offered spring. Offered at Missoula College. Basic welding processes of shielded metal arc welding (SMAW), flux core arc welding (FCAW) are covered in the flat, horizontal, and vertical positions in a variety of joint configurations. The instruction in flux core arc welding is focused on the carpentry building trades. Instruction in the oxyacetylene cutting process is also provided. Safe operation of equipment is covered and work is evaluated to industrial standards. This course is designed for carpentry students.

**WLDG 117 - Blueprint Reading & Welding Symbols. 3 Credits.**

Offered spring. Offered at Missoula College. Prereq., DDSN 113A. Practical experience in reading and drawing orthographic projections, interpreting dimensions, notes, scales, and welding symbols. Isometric projection (pictorial), sections, and auxiliary views with practical experience using conventional drafting tools and computer aided drafting (CAD).

**WLDG 145 - Fabrication Basics. 4 Credits.**

Offered spring. Offered at Missoula College. Prereq., WLDG 180; coreq., WLDG 117, 187. Conception, design, and construction of a metal structure to industry standards using shears, presses, and other machine tools common to the welding industry. Skills are developed in the areas of shielded metal arc welding and flux core arc welding, oxyacetylene cutting, plasma arc cutting, and air carbon arc cutting.

**WLDG 150 - Welding Layout Techniques. 2 Credits.**

Offered autumn. Offered at Missoula College. Using practical layout techniques students develop basics for blueprint construction, layout on pipe and structural steel, and use of tools common to material layout.

**WLDG 180 - Shielded Metal Arc Welding. 4 Credits.**

Offered autumn. Offered at Missoula College. Theory and safe operation of shielded metal arc welding (SMAW) of carbon steel on plate and structural components in all positions to industry standards. Visual inspection and destructive testing used to determine acceptability based upon industry standards (American Welding Society Structural Welding Code-Steel). Power sources and electrodes are covered in depth. Materials are prepared using mechanical plate shears and thermal cutting techniques. Thermal cutting techniques are examined relative to theory of operation and safe practices. Processes used are oxy-fuel cutting, plasma arc cutting, and air carbon arc cutting. Theory and operation of oxyacetylene welding examined.

**WLDG 184 - OSHA Rules & Regulations: Welding. 1 Credit.**

Offered spring. Offered at Missoula College. Study of the Occupational Safety and Health Administration rules and regulations that affect the welding and construction industries.

**WLDG 187 - Flux Core Arc Welding. 4 Credits.**

Offered spring. Offered at Missoula College. Prereq., WLDG 180. Theory, practice, and safe operation of flux core arc welding equipment. Coupons are welded in the flat, horizontal, and vertical positions to industry standards using a variety of welding electrodes, diameters, and power sources, which prepare students for welding qualification to the American Welding Society Structural Welding Code specifications.

**WLDG 191 - Special Topics. 1-6 Credits.**

(R-6) Offered intermittently. Offered at Missoula College. Experimental offerings of visiting professors, experimental offerings of new courses, or one-time offerings of current topics.

**WLDG 192 - Independent Study. 1-6 Credits.**

(R-6) Offered intermittently. Offered at Missoula College. Course material appropriate to the needs and objectives of the individual student.



**WLDG 198 - Internship. 1-6 Credits.**

(R-6) Extended classroom experience that provides practical application of classroom learning during placements off campus. Prior approval must be obtained from the faculty supervisor. A maximum of 6 credits of Internship (198, 298, 398, 498) may count toward graduation.

**WLDG 205 - Applied Metallurgy. 4 Credits.**

Offered autumn. Offered at Missoula College. Covers the manufacturing of iron and steel. Examination of physical and mechanical properties. Phase changes with the application of heating and cooling cycles. Ferrous crystal types and properties. Suggested welding procedures for low, medium, and high carbon steels, alloy steels, and cast iron.

**WLDG 210 - Pipe Welding - Integrated Lab. 4 Credits.**

Offered autumn and spring. Offered at Missoula College. Prereq., WLDG 180; coreq., WLDG 215. Emphasis on skill development in the welding of pipe sections to extremely high quality levels as required by national codes and standards. Pipe welding using GTAW for the root pass and SMAW for the remaining passes in all positions. Visual inspection and destructive testing used to evaluate work according to industry standards. Students will be able to attempt welding qualification test as to code procedure set from American Welding Society –D1.1 Structural Welding Code-Steel. This test will certify them to a determined process on carbon steel from prequalified variables.

**WLDG 215 - Gas Tungsten Arc Welding (integrated lab). 4 Credits.**

Offered autumn. Offered at Missoula College. The theory and safe operation of Gas Tungsten Arc Welding (GTAW). Examination of power source controls and operation along with associated consumables such as gasses, electrode filler materials for carbon steel, stainless steel, and aluminum. Welding skill development according to industry standards using these materials in the flat, horizontal, and vertical positions.

**WLDG 245 - Metal Fabrication Design and Construction. 4 Credits.**

Offered spring. Offered at Missoula College. Prereq., WLDG 117, 180, 187, 215, 275. Students combine all knowledge and skills developed in the welding program to design and draw a full set of plans (blueprints) for an instructor-approved project using extensive welding, metal fabrication equipment, machining processes and automation. High quality performance, consistent with business and industry required.

**WLDG 275 - Gas Metal Arc Welding. 4 Credits.**

Offered spring. Offered at Missoula College. Prereq., WLDG 187. Theory and safe operation of Gas Metal Arc Welding (GMAW). Theory of flux core arc welding applied to GMAW. Primary focus on application, practical skill development, and producing welds that meet industry standards. Metals welded are low carbon steel, stainless steel, and aluminum. Short circuit arc and spray arc transfer used. Examination of gas and electrode selection.

**WLDG 280 - Welding Testing Certification. 2 Credits.**

Offered spring. Offered at Missoula College. Prereq., WLDG 180, 187, 215, 275. Fundamental concepts and requirements of the American Society of Mechanical Engineers (ASME) and American Welding Society (AWS) are examined. Through laboratory experience students are provided the opportunity to qualify (certify) under the two codes mentioned above.

**WLDG 285 - Automation in Welding. 3 Credits.**

Offered spring. Offered at Missoula College. Prereq., WLDG 117, 150, 187, 215. Application of the welding process to automation. Examination of simple automation techniques such as tools, clamping, and fixturing to aid in the rapid joining of production runs. Increasing complexity is examined leading into equipment that carries the welding gun, tractors, and carriages by fully automated systems with the student performing set-up and troubleshooting (Submerged Arc Welding) and automated parts processing (optical tracer torch). Programmable controllers are investigated and used. Programming and use of a PUMA 650 Industrial Robot.

**WLDG 291 - Special Topics. 1-6 Credits.**

(R-6) Offered intermittently. Offered at Missoula College. Experimental offerings of visiting professors, experimental offerings of new courses, or one-time offerings of current topics.

## Women, Gender & Sexuality Studies (WGSS)

**WGSS 163L - Historical and Literary Perspectives in Gender and Sexuality. 3 Credits.**

Offered fall. This an introduction to the discipline and scope of Western thought from antiquity to the present focusing on women, LGBTIQ+, and BIPOC authors whose texts provide a nuanced view of the Western literary and historical tradition. The objective of the course is to provide an understanding and critical appreciation of seminal texts by and about women, LGBTIQ+, and BIPOC figures through readings, class discussion and written assignments.

Gen Ed Attributes: Literary & Artistic Studies

**WGSS 191 - Special Topics. 1-12 Credits.**

(R-12) Offered intermittently. Experimental offerings of visiting professors, experimental offerings of new courses, or one-time offerings of current topics.

**WGSS 250 - Media Representations of Women, Men, and Sexuality. 3 Credits.**

Offered autumn in even-numbered years. This course is designed as a survey introduction to a variety of issues related to gender and sexuality in the mass media and pop culture. The goal of the course is to familiarize students with the breadth of these issues while at the same time providing them tools to critically analyze and engage with modern media. The course focuses largely on mass mediated forms such as television, film, music, sports, news, advertising and new media. An underlying understanding within the course is a recognition of the inextricable interconnections between gender, race, ethnicity, class, sexual orientation and so forth. Therefore, the course is invested in exploring the ways in which differences in identity produce different mediated representations and experiences of media. The course is comprised of class discussions based on readings, class presentations, and viewing and interpreting various mediated texts and documentaries. The course readings are both practical and theoretical, and while many of them focus on specific case studies, they are intended to provoke thoughtfulness in each student such that it can be applied to a variety of media.



**WGSS 263S - Social and Political Perspectives on Gender and Sexuality. 3 Credits.**

Offered autumn. The course is designed to introduce students to the broad fields of women's, gender, and sexuality studies through an overview of a number of the theoretical and experiential perspectives of WGSS from a social science perspective. Students will analyze the history of feminism, women's studies, gender studies, and the growing field of queer studies; biological and psychological theories of gender; the social construction of gender as a product of history and culture; the relationship between gender and other categories of difference (race, sexual orientation, class, ethnicity); family and work; gender-based violence; the relationship between politics, economics, and gender; the representation of gender in popular culture; health and reproduction; and activism.

Gen Ed Attributes: Social Sciences, Writing Across the Curriculum

**WGSS 291 - Special Topics. 1-12 Credits.**

(R-12) Offered intermittently. Experimental offerings of visiting professors, experimental offerings of new courses, or one-time offerings of current topics.

**WGSS 294 - Seminar. 1-6 Credits.**

(R-6) Offered intermittently. A review and discussion of current research. Topics vary.

**WGSS 363 - Feminist and Queer Theories and Methods. 3 Credits.**

Offered spring. Prereq., WRIT 101. In-depth exposure to feminist and queer views and critiques of the ethics and methods of scientific, social, and literary inquiry. Includes exposure to primary sources and current societal and global issues and movements, research finding, and literature exemplifying these methods of inquiry and the gendered dimensions of such inquiry.

Gen Ed Attributes: Writing in the Disciplines

**WGSS 378 - LGBTQ Studies. 3 Credits.**

Offered autumn. This course examines issues, questions, and interdisciplinary approaches that characterize the field of lesbian/gay/bisexual/trans/queer (LGBTQ) studies. It explores the formation of LGBTQ politics and cultures in the United States, theories of sexual and gender diversity, and sexuality and sexual identity as key categories for understanding knowledge and the self.

**WGSS 390 - Undergraduate Research. 1-6 Credits.**

(R-6) Offered intermittently. Directed individual research and study appropriate to the back ground and objectives of the student.

**WGSS 391 - Special Topics. 1-12 Credits.**

(R-12) Offered intermittently. Experimental offerings of visiting professors, experimental offerings of new courses, or one-time offerings of current topics.

**WGSS 392 - Independent Study. 1-12 Credits.**

(R-12) Offered intermittently. Course material appropriate to the needs and objectives of the individual student.

**WGSS 398 - Internship. 1-6 Credits.**

(R-6) Offered intermittently. Extended classroom experience that provides practical application of classroom learning during placements off campus. Prior approval must be obtained from the faculty supervisor. A maximum of 6 credits of Internship (198, 298, 398, 498) may count toward graduation.

**WGSS 423 - Medieval and Early Modern Women Authors. 3 Credits.**

Offered every third year, spring. This course will examine writings by, for, and about (but mostly by) women in the European Middle Ages and the Early Modern period with a focus on secular and religious authors from the twelfth through the fifteenth centuries. We will explore how medieval and early modern female authors found their voices and constructed alternative discourses of gender, religion, and sexuality against the dominant medieval vision of woman as Bride of Christ or Devil's Gateway. Level: Undergraduate-Graduate

**WGSS 433 - African and Caribbean Women Authors. 3 Credits.**

Offered every odd numbered spring. Course explores the writings of authors who identify as women across francophone Africa and the Caribbean through postcolonial, feminist, and queer perspectives. Students can choose to complete readings and assignments in French or English. This class will expose students to the writings of African and Caribbean francophone women authors and centering their experiences in the globalized and postcolonial contexts of today. Level: Undergraduate-Graduate

**WGSS 490 - Undergraduate Research. 1-6 Credits.**

(R-6) Offered intermittently. Directed individual research and study appropriate to the back ground and objectives of the student. Level: Undergraduate

**WGSS 491 - Special Topics. 1-12 Credits.**

(R-12) Offered intermittently. Experimental offerings of visiting professors, experimental offerings of new courses, or one-time offerings of current topics. Level: Undergraduate-Graduate

**WGSS 492 - Independent Study. 1-9 Credits.**

(R-9) Offered intermittently. Course material appropriate to the needs and objectives of the individual student. Level: Undergraduate

**WGSS 494 - Seminar. 3 Credits.**

(R-9) A review and discussion of current research. Topics vary. Level: Undergraduate

**WGSS 499 - Women's, Gender, and Sexuality Studies Capstone. 3 Credits.**

Offered spring. Capstone course for the Women's, Gender, and Sexuality Studies majors and minors. The WGSS Capstone is an opportunity for WGSS majors and minors to reflect and expand on what they have learned across their WGSS courses and to share those experiences with others. Level: Undergraduate

**WGSS 591 - Special Topics. 1-12 Credits.**

(R-24) Offered intermittently. Experimental offerings of visiting professors, experimental offerings of new courses, or one-time offerings of current topics. Level: Graduate

**WGSS 592 - Independent Study. 1-6 Credits.**

(R-6) Offered intermittently. Course material appropriate to the needs and objectives of the individual student. Level: Graduate

**WGSS 594 - Graduate Seminar. 3 Credits.**

(R-9) A review and discussion of current research. Topics vary. Level: Graduate

**WGSS 598 - Internship. 1-6 Credits.**

(R-6) Offered by special arrangement. Extended classroom experience that provides practical application of classroom learning during placements off campus. Prior approval must be obtained from the faculty supervisor. Level: Graduate

**WGSS 691 - Special Topics. 1-12 Credits.**

(R-12) Experimental offerings of visiting professors, experimental offerings of new courses, or one-time offerings of current topics. Level: Graduate

## World Languages & Cultures (WLC)

### **WLC 110 - Introduction to European Studies. 3 Credits.**

This course offers an introduction to key concepts and themes of European Studies. It examines the phenomenon of Europe as a geographic region as well as an historical cultural construct.

### **WLC 191 - Special Topics. 1-12 Credits.**

(R-12) Offered intermittently. Experimental offerings of visiting professors, experimental offerings of new courses, or one-time offerings of current topics.

### **WLC 381 - Madness in Literature and Cinema. 3 Credits.**

(R-6) This course investigates that place where literature and madness overlap in a variety of poetry, novels, short stories, and historical texts in three distinct European traditions: Spanish, French and Russian. The class follows different lines of thought such as the differences between madness and eccentricity, the connection between madness and ingenuity, and the allegorization of the creative process through depictions of madness. Only repeatable if the topic changes.

### **WLC 382 - Environmental Humanities: World Perspectives. 3 Credits.**

This course offers a comparative examination of the role of nature and the environment in different cultural traditions with a focus on three in particular: Japanese, German, and Russian. Students learn about such topics as national geographies and natural resources, folk beliefs and traditions related to nature and the environment, persisting relevant cultural values, and the effects of industrialization along with contemporary issues that will connect our attention to the current day.

### **WLC 391 - Special Topics. 1-12 Credits.**

(R-12) Offered intermittently. Experimental offerings of visiting professors, experimental offerings of new courses, or one-time offerings of current topics.

### **WLC 410 - Methods of Language Teaching. 3 Credits.**

Fundamental concepts, objectives, and techniques in the teaching of world languages. Level: Undergraduate-Graduate

### **WLC 492 - Independent Study. 1-6 Credits.**

(R-12) Course material appropriate to the needs and objectives of the individual student. Level: Undergraduate

## Writing (WRIT)

### **WRIT 095 - Developmental Writing. 3 Credits.**

Offered every term. Offered at Missoula College. Prereq., placement or referral by WRIT 101 instructor. Designed for students who need instruction and practice integrating critical thinking, reading and writing before entering the required first-year writing course. Emphasis on invention, drafting, and revision. Grading A-F or NC (no credit). Credit does not count toward Associate of Arts or Baccalaureate degrees.

### **WRIT 101 - College Writing I. 4 Credits.**

UM: Offered every term. Prereq., WRIT 095 or proof of passing score on writing diagnostic examination, ACT English, 22-27, ACT Combined English/Writing 18-31, ACT Writing subscore 7-10, SAT Writing Score 440-690, SAT Essay subscore 7-10, ACT Writing subject score 19-32, ACT English Language Arts (ELA) score 18-31, SAT Writ/Language Test score 25-36. Emphasis on rhetorical understanding, textual analysis, and genre flexibility. Grading A-F, or NC (no credit). \*\*\*\*\* Missoula College description for this course: Offered every term. Prereq., WRIT 095 or proof of passing score on writing diagnostic examination, ACT English, 22-27, ACT Combined English/Writing 18-31, ACT Writing subscore 7-10, SAT Writing Score 440-690, SAT Essay subscore 7-10, ACT Writing subject score 19-32, ACT English Language Arts (ELA) score 18-31, SAT Writ/Language Test score 25-36., WRIT 095 or proof of appropriate SAT/ACT essay, English/Writing, writing section scores, appropriate MUSWA scores, or proof of passing scores on Writing Placement Exam). Expository prose and research paper; emphasis on structure, argument, development of ideas, clarity, style, and diction. Students expected to write without major faults in grammar or usage. Grading A-F, or NC (no credit). Co-Requisite Support sections of WRIT 101 are 4 credits; they are offered Autumn and Spring. Placement is based on UM Writing Placement Assessment score, ACT Combined English/Writing <18, ACT Writing subscore <7, SAT Writing Score <440, SAT Essay subscore <7, ACT Writing subject score <19, ACT English Language Arts (ELA) score <18, SAT Writ/Language Test score <25, or referral by WRIT 101 instructor. Designed for students who need additional instruction, support, and practice integrating critical thinking, reading and writing. Gen Ed Attributes: Introductory Writing

### **WRIT 121 - Introduction to Technical Writing. 3 Credits.**

Offered every term. Offered at Missoula College. Prereq., WRIT 101 or proof of appropriate SAT/ACT essay, English/Writing, writing section scores, appropriate MUSWA scores, or proof of passing scores on Writing Placement Exam. Introduction to technical writing situations that integrate text, design, and graphics. Emphasis is on evidence-based, informative writing that uses design and graphics to visually represent logic and organization. Course focuses on writing as a process and includes student self-assessment. Major assignments include a pure technical document, exploration of credibility, and public science writing. Students are expected to write without major faults in grammar or usage and to have basic computer literacy. Gen Ed Attributes: Writing Across the Curriculum

### **WRIT 191 - Special Topics. 1-6 Credits.**

(R-6) Offered intermittently. Experimental offerings of visiting professors, experimental offerings of new courses, or one-time offerings of current topics.

### **WRIT 192 - Independent Study. 1-6 Credits.**

(R-6) Offered intermittently. Course material appropriate to the needs and objectives of the individual student.

### **WRIT 198 - Internship. 1-6 Credits.**

(R-6) Extended classroom experience that provides practical application of classroom learning during placements off campus. Prior approval must be obtained from the faculty supervisor. A maximum of 6 credits of Internship (198, 298, 398, 498) may count toward graduation.

**WRIT 201 - College Writing II. 3 Credits.**

Offered autumn and spring. Prereq., placement or C or better in WRIT 101; ACT English 28 or higher; ACT Combined English/Writing 32-36; ACT Writing subscore 11-12; SAT Writing Score 700-800; SAT Essay subscore 11-12; ACT Writing subject score 33 or higher; ACT English Language Arts (ELA) score 32 or higher; SAT Writ/Language Test score 37 or higher. Offers instruction in rhetorical reading and writing, particularly the study and practice of written argumentation in different academic and civic contexts.

Gen Ed Attributes: Writing Across the Curriculum, Introductory Writing

**WRIT 203 - Beyond the Bar: Rhetorics of Pub/Public Culture. 3 Credits.**

Offered fall and spring. Prereq., WRIT 101 or WRIT 201. In 2015, the Montana Kaiman published an article titled, "Inebriation Nation: a History of Alcohol at UM." The article notes, "The University of Montana's relationship with alcohol has always been a complicated one" (Abigail Lynes). UM's complicated history with alcohol is well documented through storied events such as the Aber Day Kegger and The Foresters' Ball. As depicted in the Montana PBS documentary, Aber Day Kegger, "The idea of organizing and putting on the Aber Day Kegger originated in 1972 in a University of Montana sociology class, to help offset budget cuts. The students conceived a plan to hold a benefit kegger offering live music and unlimited beer. The rest, as the cliché goes, is history. The first library benefit kegger was held in 1972 in lower Deer Creek, east of East Missoula." Beyond campus, pub culture is seen globally as a hub of the community. Our inquiry will begin by looking globally at tavern or pub culture and eventually our scope will narrow to focus on our community in Missoula. This course is an introductory survey of ideas theorizing the relationships between rhetoric and pub/ public culture. The foundation of our study will be rooted in critical and analytic perspectives. Students will also learn how to engage in critical analysis of the relationships between rhetoric and pub/public culture, as well as related fields such as addition theory and cultural studies. Students will read theories/ theorists including: Kenneth Burke, Mikhail Bakhtin, Kimberlé Crenshaw, Michel Foucault, Adrienne Rich, Judith Butler, Brendan Behan, cultural studies, post-colonial studies, feminist studies, and postmodernism. This class is designed to provide students with the rhetorical knowledge and cultural perspectives necessary to be successful writers at the college-level and more specifically within the field of writing studies. This course emphasizes the importance of critical thinking, reading, and composing in an academic context. To do this, students will explore research practices within the field of rhetoric and composition and related disciplines such as literary criticism, film studies, political science, business, history, and women's and gender studies. Students will have ample exposure to successful composing methods and will be encouraged to bring these insights to the page. Students will expand their purview by examining the literary, historical, national, and gender contexts for interpreting the artwork, films, music, and marketing at the crux of pub/public rhetoric. The writing assignments in this course are aimed at increasingly students' fluidity at composing critical analyses of films, music, and literature through a series of scaffolded, reflective writing inquiries. Students will learn to identify and enact key features of discipline specific writing such as summary, analysis, and argumentation by studying primary and secondary sources. Students will also focus on organization, clarity, and mechanics through a systematic series of revisions.

Gen Ed Attributes: Writing Across the Curriculum

**WRIT 206 - Mouse Rhetorics: Writing and Reading Disney. 3 Credits.**

Offered fall and spring. Prereq., WRIT 101. This course explores the cultural phenomenon that is Disney through preeminent texts, including film, advertisements/marketing campaigns, novellas, merchandise, and graphic novels (not an exhaustive list). To do this, the class will begin with an examination of Disney as a cultural form. Next, we will move through various genres and decades charting political and cultural shifts in conjunction with popular Disney films and books. We will also turn to current events as Disney frequently wades into the political arena. Utilizing rhetorical criticism, we will explore concerns of moral ambiguity as connected to theories of race, gender, and sexuality as presented by Disney.

Gen Ed Attributes: Writing Across the Curriculum

**WRIT 291 - Special Topics. 1-9 Credits.**

(R-9) Offered intermittently. Experimental offerings of visiting professors, experimental offerings of new courses, or one-time offerings of current topics.

**WRIT 325 - Science Writing. 3 Credits.**

Offered spring. Discussion of different types of science writing and focus on methods to achieve more fluent prose. Includes material on logic, inference, and developing arguments that rely on data.

Gen Ed Attributes: Writing Across the Curriculum

**WRIT 391 - Special Topics. 1-9 Credits.**

(R-9) Offered intermittently. Experimental offerings of visiting professors, experimental offerings of new courses, or one-time offerings of current topics.

**WRIT 398 - Internship. 1-6 Credits.**

(R-6) Extended classroom experience that provides practical application of classroom learning during placements off campus. Prior approval must be obtained from the faculty supervisor. A maximum of 6 credits of Internship (198, 298, 398, 498) may count toward graduation.

**WRIT 491 - Special Topics. 1-6 Credits.**

(R-6) Offered intermittently. Experimental offerings of visiting professors, experimental offerings of new courses, or one-time offerings of current topics. Level: Undergraduate-Graduate

**WRIT 492 - Independent Study. 1-3 Credits.**

(R-9) Offered every term. Course material appropriate to the needs and objectives of the individual student. Level: Undergraduate

**WRIT 540 - Teaching College Level Composition. 3 Credits.**

Offered autumn. Restricted to graduate students teaching expository writing at The University of Montana. Theory and pedagogy of teaching college composition are emphasized. Level: Graduate

**WRIT 591 - Special Topics. 1-9 Credits.**

(R-24) Offered intermittently. Experimental offerings of visiting professors, experimental offerings of new courses, or one-time offerings of current topics. Level: Graduate

**WRIT 592 - Independent Study. 1-3 Credits.**

(R-9) Offered every term. Course material appropriate to the needs and objectives of the individual student. Level: Graduate



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