University of Montana - Department of Mathematical Sciences

## Advising Worksheet (2019-2020 Catalog)

For Mathematics Education Majors
Note that the UM Catalog is the ultimate authority regarding degree requirements. Please bring any mistakes on this worksheet immediately to the attention of the Department of Mathematical Sciences.
Basic Information

| Name: | Date: <br> Email: <br> Advisor: |
| :--- | :--- |
|  | ID\#: 790 |

(A) General Education \& Math-Ed Science Requirements

| Group | Recommendation | Actually Taken | Cr. | Term | Grade |
| :--- | :--- | :--- | :--- | :--- | :--- |
| I.a | WRIT 101 or 201 |  | cr |  |  |
| I.b | LIT 110L or 120L <br> (or WRIT 201) |  | cr |  |  |
| I.c | M 429 | M 429 (required) | 3 cr | Spr. |  |

Groups II and III.b: satisfied with M 171.

| Group | Recommendation | Actually Taken | Cr. | Term | Grade |
| :---: | :--- | :--- | :--- | :--- | :--- |
| IV. (A) | COMX 111A |  | cr |  |  |
| V. (L) | LIT 110L or 120L |  | cr |  |  |
| VI. (H) | NASX 105HX |  | cr |  |  |
| VII. (S) | PSYX 100S |  | cr |  |  |
| VIII. (E) | EDU 407E | EDU 407E (required) | 3 cr |  |  |
| IX. (Y) | HSTA 101H or 102H |  | cr |  |  |
| X. (X) | NASX 105HX |  | cr |  |  |

Group XI ( $\mathbf{N}$ ): Need 6 cr . in science N -courses; one course must have a lab. Fulfill together with the Math-Ed Science Requirement: Unless completing a $\square$ minor or $\square 2^{\text {nd }}$ major, need 12 cr . from at most 2 of the following areas: 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).

| Course | Title | Cr. | Term | Grade |
| :--- | :--- | :--- | :--- | :--- |
|  |  | cr |  |  |
|  |  | cr |  |  |
|  |  | cr |  |  |
|  |  | cr |  |  |
|  |  | cr |  |  |

(B) Math Courses

Courses with an asterisk (*) are required for a mathematics teaching minor. See Part ( E ) for scheduling recommendations.

| Course | Title | Cr. | Term | Grade |
| :--- | :--- | :--- | :--- | :--- |
| ${ }^{*}$ M 171 | Calculus I (or M 181 Honors Calc I) | 4 cr |  |  |
| ${ }^{*}$ M 172 | Calculus II (or M 182 Honors Calc II) | 4 cr |  |  |
| ${ }^{*}$ M 221 | Introduction to Linear Algebra | 4 cr |  |  |
| ${ }^{*}$ M 301 | Teaching Math w/ Technology | 3 cr | F odd yr |  |
| ${ }^{*}$ M 307 | Intro to Abstract Mathematics | 3 cr |  |  |
| ${ }^{*}$ M 326 | Number Theory | 3 cr | Spr. |  |
| ${ }^{*}$ STAT 341 ${ }^{\text {§ }}$ | Intro to Probability and Statistics | 3 cr |  |  |
| M 429 | History of Mathematics | 3 cr | Spr. |  |
| M 431 | Abstract Algebra I | 4 cr | Fall |  |
| ${ }^{\text {M M 439 }}$ | Euclidean \& Non-Euclid. Geom. | 3 cr | Fall |  |
| *EDU 497.12 | Methods: 5-12 Mathematics | 4 cr | Fall |  |
| M/STAT | (elective - see Part (C)) | cr |  |  |

${ }^{\S}$ If STAT 451 is not the elective course, it can be substituted for STAT 341.

## (C) M/STAT Elective

The M/STAT Elective in Part (B) must be one of the following courses:
M 273, 311, 325, 361, 362, 381, 412, 414, 432, 440, 445, 461, 462, 472, 473, 485 and STAT 421, 422, 451, 452.
(D) Teacher Licensure Requirements

| Course Information | Cr. | Term | Grade |
| :--- | :---: | :--- | :--- |
| WRIT 101 | 3 cr |  |  |
| NASX__(Recommended: NASX 105HX) | 3 cr |  |  |
| Take after admission to the Teacher Education Program: |  |  |  |
| HEE 330, Promoting Well-Being in Classroom P-12 | 2 cr |  |  |
| EDU 202, Early Field Experience | 1 cr |  |  |
| EDU 221, Educational Psychology \& Measurement | 3 cr |  |  |
| EDU 345, Exceptionality \& Classroom Management | 3 cr |  |  |
| EDU 395.11 or 395.12, Clinical Experiences | 1 cr |  |  |
| EDU 407E, Ethics and Policy Issues | 3 cr |  |  |
| EDU 481, Content Area Literacy | 3 cr |  |  |
| EDU 497.12, Methods: 5-12 Mathematics | 4 cr |  |  |
| EDU 494, Seminar: Refl Pract \& App Rsrch | 1 cr |  |  |
| EDU 495, Methods: 5-12 Mathematics | 14 cr |  |  |

The overall cumulative GPA must be at least 2.75.
The overall cumulative GPA for all courses in Part (B) must be at least 2.75.

## (E) Scheduling Recommendations

- Because not all courses are offered every semester, and because some courses must be taken before others, carefully plan with your advisor which courses to take when, as soon as you finish Calculus II. It is recommended to use the Math-Ed Course Planning Guide.
- Note that M $\mathbf{3 0 1}$ is only offered in Fall of odd-numbered years.
- It is recommended to take M 221 before M 307. But take M 307 early since it is a prerequisite for $M 326,429,431$ and 439, which are not offered every semester.
- It is recommended to take M $\mathbf{3 2 6}$ before M 431 .


## (F) Some Other Important Requirements

- Traditional Letter Grade Requirement: All courses listed on this worksheet must be completed with a traditional letter grade of Cor better.
- Math Residency Requirement: Among the upper-division $M$ and STAT courses taken in Parts (B) and (C), at least 4 must be taken at UM-Missoula.
- Petitions for substitutions or waivers of departmental requirements must be approved in writing by the Math Department's Associate Chair for the Undergraduate Program; denied petitions can be appealed to the Math Department's Undergraduate Committee.
- Transfer Courses: Petitions to substitute transfer courses for upperdivision $M$ and STAT courses listed in Part ( $B$ ) are usually only granted subject to the following requirement: In addition to M 307 , the student needs to take at least 6 upper-division M or STAT courses listed in Parts (B) or (C), with at least 3 at the 400-level.


## Advising Highlights from the UM Catalog

Here is a small selection of particularly important rules from the 2019-2020 Catalog. For links to the requirements, visit http://hs.umt.edu/math/under graduate/majors/advising/advising-highlights.php.

## Credit Load

The maximum credit load is 21 credits per semester; the minimum full-time load for undergraduate students is 12 credits per semester. To earn 120 credits in 4 years, students should take about 15-16 credits each semester.

Requirements for the First Bachelor Degree

- 120 credits total are required for most B.A. degrees.
- Credit/No Credit Grading (CR/NCR):
- A maximum of 18 "credit/no credit" credits are allowed.
- 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.
- Residency Requirements: Of the last 45 credits required for the degree, at least 30 must be earned from UM-Missoula.
- Undergraduates in Graduate Courses: only post-baccalaureates and seniors having a GPA of 3.0 or greater may, with consent of instructor, enroll in 500-level courses (for undergraduate credit).

Graduation:

- You must submit your Graduation Application nearly 2 semesters before your expected graduation date.
- Aim high! Look at the rules for Graduation with Honors or High Honors.

