

## Advising Worksheet (2017-2018 Catalog)

*For all Undergraduate Math Majors*

*(Except Math-Ed and the Combined Math/CS Major)*

**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:
Email:	ID #: 790
Advisor:	Catalog for Graduation:
If applicable: <input type="checkbox"/> Minor or <input type="checkbox"/> 2 <sup>nd</sup> Major in:	

### (A) General Education Requirements

Fill out a General Education Worksheet

### (B) Non-Math Courses

**(B.1) Either**  one course chosen from CSCI 100, 135, 136, 250;  
**or**  completion of the General Education Requirement "Group III: Modern and Classical Language" (not the symbolic systems exception);  
**or**  a 2<sup>nd</sup> major. (Note: a minor does not waive this requirement.)

Course	Title	Cr.	Term	Grade
		cr		

**(B.2) Science Courses:** Take 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). This is **waived** if you complete a  minor or a  2<sup>nd</sup> major.

Course	Title	Cr.	Term	Grade
		cr		
		cr		
		cr		
		cr		
		cr		
		cr		
		cr		

**(B.3) Advanced College Writing Requirement:** Either an approved Advanced College Writing course (e.g., M 429), or a senior thesis (M 499):

Course	Title	Cr.	Term	Grade
		cr		

### (C) Core Math Courses

Course	Title	Cr.	Term	Grade
M 171	Calculus I (or M 181 Honors Calculus I)	4 cr		
M 172	Calculus II (or M 182 Honors Calculus II)	4 cr		
M 210	Intro to Mathematical Software	3 cr	Spr	
M 221	Introduction to Linear Algebra	4 cr		
M 273	Multivariable Calculus	4 cr		
M 300	Undergraduate Math Seminar	1 cr		
M 307	Introduction to Abstract Mathematics	3 cr		

### (D) Concentration (not required; see back for details)

None       Applied       C & O       Pure       Statistics

### (E) Upper-Division Mathematics Requirement

**Take at least 7 courses from the following list (at least 3 must be at the 400-level):** M 301, 311, 325, 326, 361, 362, 381, 412, 414, 429, 431, 432, 439, 440, 445, 461, 462, 472, 473, 485 and STAT 341, 421, 422, 452. **The required total number of credits is 23 credits.** Note that the 300/400 level computer labs (M 317, 363, 418 and STAT 457, 458) count towards the total number of required credits (but not towards the 7 courses). *If you select a concentration, keep the concentration requirements in mind.*

If completing a minor: Take 6 courses and at least 20 credits.

If completing a 2<sup>nd</sup> major: Take 6 courses and at least 18 credits.

Course	Title	Cr.	Term	Grade
		cr		
		cr		
		cr		
		cr		
		cr		
		cr		
		cr		
		cr		
		cr		

## (F) Concentration Requirements

- It is not necessary to select a concentration.
- **Applied Mathematics:** M 311, 412, and two courses chosen from 414, 440, 445 and 472. (M 381 and 485 are recommended.)
- **Combinatorics & Optimization:** M 361, 362, 485, and one course chosen from CSCI 332, M 414, M 440, STAT 341.
- **Pure Mathematics:** Four courses chosen from M 381, 431, 432, 472, and 473.
- **Statistics:** Four courses chosen from STAT 341, 421, 422, 452 and M 461, 462.

## (G) Some Other Important Requirements

- **Traditional Letter Grade Requirement:** With the exception of M 300, all courses listed on this worksheet, including the courses under (B), must be completed with a traditional letter grade of C- or better. (This is also the case for all courses taken to satisfy General Education Requirements.)
- **Upper-Division Credit Requirement:** At least 39 credits in upper-division courses (numbered 300 and above) are required.
- **Credit Limitation in the Major:** A maximum of 60 credits in mathematical sciences courses (M and STAT courses) can be counted towards the 120 credits required for this major.
- **Math Residency Requirement:** Among M 307 and the 6-7 courses taken to satisfy (E), at least 4 must be taken at UM-Missoula.
- **GPA Requirement:** A cumulative GPA of 2.0 is required in each of the following categories:
  - All M and STAT courses used to fulfill major requirements
  - All courses used to fulfill major requirements
  - All work attempted in the major (M and STAT courses) at UM-Missoula
  - All work attempted 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.

## Advising Highlights from the UM Catalog

Here is a small selection of particularly important rules from the 2017-2018 Catalog. For links to the requirements, visit <http://hs.umt.edu/math/undergraduate/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 credits each semester.)

### Requirements for a 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. For math majors, there is one exception: M 300, if taken before Fall 2017.
- **Transfer Students:** If you transfer more than 27 semester credits at the time of your initial registration at the University you are exempt from the requirement to take an Intermediate College Writing course.
- **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**.