Advising Worksheet (2014-2015 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 #: ___________________________
Advisor: __________________________ Catalog for Graduation: ___________________________

If applicable: □ Minor or □ 2nd 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 2nd major. (Note: a minor does not waive this requirement.)

(B.2) Science Courses: 18 credits from at most 3 sciences selected from astronomy, biology, chemistry, computer science, economics, forestry, geosciences, and physics. (Note that biology includes all courses with prefixes BIOL, MICB, BIOB, BIOE, BIOH, BIOM and BISO.) This requirement is waived if you complete a ☐ minor or a □ 2nd major.

(B.3) Upper-Division Writing Requirement: Either an upper-division general education writing course (e.g., M 429), or a senior thesis (M 499):

<table>
<thead>
<tr>
<th>Course</th>
<th>Title</th>
<th>Cr.</th>
<th>Term</th>
<th>Grade</th>
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(C) Core Math Courses

<table>
<thead>
<tr>
<th>Course</th>
<th>Title</th>
<th>Cr.</th>
<th>Term</th>
<th>Grade</th>
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</thead>
<tbody>
<tr>
<td>M 171</td>
<td>Calculus I (or M 181 Honors Calculus I)</td>
<td>4 cr</td>
<td></td>
<td></td>
</tr>
<tr>
<td>M 172</td>
<td>Calculus II (or M 182 Honors Calculus II)</td>
<td>4 cr</td>
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<tr>
<td>M 210</td>
<td>Introduction to Mathematical Software</td>
<td>3 cr</td>
<td>Spr</td>
<td></td>
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<tr>
<td>M 221</td>
<td>Introduction to Linear Algebra</td>
<td>4 cr</td>
<td></td>
<td></td>
</tr>
<tr>
<td>M 273</td>
<td>Multivariable Calculus</td>
<td>4 cr</td>
<td></td>
<td></td>
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<tr>
<td>M 300</td>
<td>Undergraduate Math Seminar</td>
<td>1 cr</td>
<td></td>
<td></td>
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<tr>
<td>M 307</td>
<td>Introduction to Abstract Mathematics</td>
<td>3 cr</td>
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(D) Option (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, 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 an option, keep the option requirements in mind.

☐ If completing a minor: Take 6 courses and at least 20 credits.
☐ If completing a 2nd major: Take 6 courses and at least 18 credits.
(F) Option Requirements for the B.A. in Mathematics

- **Applied Mathematics:** M 311, 412, 414 and one of 440 or 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:** STAT 341, 421, 422. (Additional mathematics and statistics courses chosen with advisor.)

(G) Other 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.)
- **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 M and STAT courses used to fulfill major requirements.
- **Math Residency Requirement:** Among M 307 and the courses taken to satisfy (E), at least 4 must be taken from 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 2014-2015 UM Catalog.

**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. The math-ed option requires 128 credits total.
  - **Upper-Division Requirement:** A minimum of 39 credits in upper-division courses is required (courses numbered 300 or above).
  - **Credit Limitations in a Major** (search for "Credit Limitations"): A maximum of 60 credits in the major can be counted toward most degrees. (Students in the combined Math/CS major can count 75 credits.)
- **Credit/No Credit Grading (CR/NCR)** (search for "Credit/No Credit Grading"):  
  - 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, the only exception is M 300, the Undergraduate Math Seminar.
- **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 "One Writing Course" requirement (search for “One Writing Course”).
- **UM Residency requirements:** Of the last 45 credits required for the degree, at least 30 must be earned from UM-Missoula.
- **Undergraduates in Graduate Courses** (search for "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). “Variance from these requirements cannot be petitioned.”

Graduation:

- You must submit your Graduation Application nearly 2 semesters before your expected graduation date (see Applying for Certificate and Degree Candidacy).
- Aim high! Look at the rules for Graduation with Honors or High Honors.