University of Montana – Department of Mathematical Sciences

Advising Worksheet (2013-2014 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: ___________________________

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 BIOO.) This requirement is waived if you complete a □ minor or a □ 2nd major.

(C) Core Math Courses

(D) Option (not required; see back for details)

☐ None    ☐ Applied    ☐ C & O    ☐ Pure    ☐ Statistics

(E) Six-Course Requirement

(Note: This requirement has been significantly modified beginning with the 2014-2015 Catalog.)

Take at least 6 additional 300/400 level math courses from the following list (at least 3 of the 6 must be numbered 400 or above): M 301, 311, 325, 326, 361, 362, 381, 412, 414, 429, 431, 432, 439, 440, 445, 472, 473, 485 and STAT 341, 421, 422.

If you select an option, keep the option requirements in mind.

(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>
</tr>
</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>
<td></td>
<td></td>
</tr>
<tr>
<td>M 210</td>
<td>Introduction to Mathematical Software</td>
<td>3 cr</td>
<td>Spr</td>
<td></td>
</tr>
<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>
</tr>
<tr>
<td>M 300</td>
<td>Undergraduate Math Seminar</td>
<td>1 cr</td>
<td></td>
<td></td>
</tr>
<tr>
<td>M 307</td>
<td>Introduction to Abstract Mathematics</td>
<td>3 cr</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>
(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.)

This is also the case for all courses taken to satisfy General Education Requirements.)

(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 2013-2014 UM Catalog

Here is a small selection of particularly important rules from 2013-2014 UM Catalog.

References to Sections in the Online Catalog: **APP** = “Academic Policies and Procedures”, **GUR** = “General University Requirements”, **RG** = “Requirements for Graduation”. These sections are linked from the chapter “Academics”. In the catalog sections APP, GUR and RG, search for the **KEYWORDS IN SMALL CAPS**.

Credit Load (see APP): maximum **CREDIT LOAD** is 21 credits per semester; minimum full-time load is 12 credits per semester.

Requirements for a First Bachelor Degree (see APP, GUR, RG)

- 120 credits total: (RG: BACHELOR DEGREES)
  - Minimum of 39 credits in courses numbered 300 or above (RG: UPPER-DIVISION REQUIREMENT)
  - Maximum of 60 credits in major can be counted toward degree (students in the combined Math/CS major can count 75 credits) (GUR: CREDIT LIMITATIONS IN A MAJOR)
- Maximum of 18 “credit/no credit” credits (see APP: CREDIT/NO CREDIT GRADING for limitations). Note: With the exception of M 300, all math courses counting towards a math major or minor must be taken for traditional letter grade.
- **General education requirements** (see GUR). (Transfer students search in GUR for GENERAL EDUCATION FOR TRANSFER STUDENTS.)
- **RESIDENCY REQUIREMENTS** (see RG): Of the last 45 credits required for the degree, at least 30 must be earned from UM-Missoula.
- Students must declare a major before completing 45 credits or after 3 semesters, whichever occurs first. (GUR: MAJOR REQUIREMENTS)
- **UNDERGRADUATES IN GRADUATE COURSES** (see APP): only post-baccalaureates and seniors having a GPA of 3.0 or greater may, with consent of instructor, enroll in 500-level courses.

Graduation:

- Must apply for DEGREE CANDIDACY nearly 2 semesters before your expected graduation date. (RG)
- GRADUATION WITH HONORS OR HIGH HONORS: See requirements in RG and talk to your advisor.