Mathematics, B.A.

Academic Plans

Four-Year Graduation Plan

The following checkpoints list the minimum requirements students must complete by certain semesters in order to stay on the University's Four-Year Graduation Plan. Courses in the major are those required to complete the major; they may be offered by departments other than the major department.

Many mathematics courses must be taken in sequence, so students must begin major requirements as early as possible, and individual plans of study must be constructed carefully. The major typically requires 11 or 12 courses. Students must choose Program A, B, or C by the end of the third semester and must remain in their chosen program until they graduate in order to stay on track for the four-year graduation plan.

Before the third semester begins: coursework in the major through second-semester calculus

Before the fifth semester begins: two or three more courses in the major

Before the seventh semester begins: three or four more courses in the major and at least 90 s.h. earned toward the degree

Before the eighth semester begins: two or three more courses in the major

During the eighth semester: enrollment in all remaining coursework in the major, all remaining GE CLAS Core courses, and a sufficient number of semester hours to graduate

Sample Plans of Study

Sample plans represent one way to complete a program of study. Actual course selection and sequence will vary and should be discussed with an academic advisor. For additional sample plans, see MyUI.

Mathematics, B.A.

- Program A [p. 1]
- Program B [p. 2]

Program A

<table>
<thead>
<tr>
<th>Course</th>
<th>Title</th>
<th>Hours</th>
</tr>
</thead>
<tbody>
<tr>
<td>Any Semester</td>
<td>Program A is primarily for students who plan to work in business or government or to pursue graduate study in mathematics.</td>
<td></td>
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</tbody>
</table>

First Year

Fall

- ENGL:1200 or Rhetoric:1030: The Interpretation of Literature or Rhetoric 3 - 4
- MATH:1850: Calculus I 4
- GE CLAS Core: Values and Culture b 3
- CSI:1600: Success at Iowa 2
- Elective course c 2

Hours 14-15

Spring

- RHET:1030 or ENGL:1200: Rhetoric or The Interpretation of Literature 3 - 4
- MATH:1860: Calculus II 4
- GE CLAS Core: Literary, Visual, and Performing Arts b 3
- GE CLAS Core: Diversity and Inclusion b 3
- Elective course c 2

Hours 15-16

Second Year

Fall

- GE CLAS Core: World Languages First Level Proficiency or elective course d 4 - 5
- MATH:2700: Introduction to Linear Algebra 4
- MATH:2850: Calculus III 4
- GE CLAS Core: Social Sciences b 3
- Elective course c, e 1

Hours 16-17

Spring

- GE CLAS Core: World Languages Second Level Proficiency or elective course d 4 - 5
- MATH:3600: Introduction to Ordinary Differential Equations 3
- MATH:3720: Introduction to Abstract Algebra I 4
- GE CLAS Core: Historical Perspectives b 3
- Elective course c, e 2

Hours 16-17

Third Year

Fall

- GE CLAS Core: World Languages Second Level Proficiency or elective course d 4 - 5
- MATH:3770: Fundamental Properties of Spaces and Functions I 4
- Major: required post-calculus math elective course f 3
- GE CLAS Core: Natural Sciences with Lab b 4
- Elective course c 1

Hours 16-17

Spring

- GE CLAS Core: World Languages Fourth Level Proficiency or elective course d 4 - 5
- Major: required post-calculus math elective course f 3
- Elective course c, e 3
- Elective course c, e 3
- GE CLAS Core: Natural Sciences without Lab b 3
- Elective course c, e 3

Hours 16-17

Fourth Year

Fall

- Major: required upper-level math elective course g 3
- GE CLAS Core: International and Global Issues b 3
- Elective course c, e 3
- Elective course c, e 3
- Elective course c, e 3

Hours 15

Spring

- Major: required post-calculus math elective course f 3
- Elective course c, e 3
- Elective course c, e 3
Elective course $^c,e$ 3
Elective course $^c,e$ 3

Degree Application: apply on MyUI before deadline
(typically in February for spring, September for fall)

<table>
<thead>
<tr>
<th>Hours</th>
<th>15</th>
</tr>
</thead>
<tbody>
<tr>
<td>Total Hours</td>
<td>123-129</td>
</tr>
</tbody>
</table>

a Enrollment in math courses requires completion of a placement exam.
b GE CLAS Core courses may be completed in any order unless used as a prerequisite for another course. Students should consult with an advisor about the best sequencing of courses.
c Students may use elective courses to earn credit towards the total s.h. required for graduation or to complete a double major, minors, or certificates.
d Students who have completed four years of a single language in high school have satisfied the GE CLAS Core World Languages requirement. Enrollment in world languages courses requires a placement exam, unless enrolling in a first-semester-level course.
e Electives may also be used to complete additional hours in the major up to a total of 56 s.h.
f Students must earn at least 15 s.h. in post-calculus mathematical sciences courses offered by the University of Iowa. Post-calculus courses are numbered 2000 or above, excluding: MATH:3700, MATH:3750, MATH:3995, MATH:3996, MATH:3997, MATH:4010, and MATH:4020. Required mathematical electives must include at least one upper-level math course (prefix MATH). Some statistics, actuarial science and computer sciences courses can be included among post-calculus electives only. See advisor for list of acceptable courses in MATH, STAT, ACTS, and CS.
g Required mathematical electives must include at least one upper-level math course. These include: MATH:3900 and math courses (MATH prefix) numbered 4000 and higher, but not MATH:4010, MATH:4020 and MATH:4120. Each upper-level math course is offered at most once per year; choose when to complete the upper-level requirement according to spring or fall offerings for desired courses.
h Please see Academic Calendar, Office of the Registrar website for current degree application deadlines. Students should apply for a degree for the session in which all requirements will be met. For any questions on appropriate timing, contact your academic advisor or Graduation Services.

**Program B**
This sample plan is currently being updated and will be added at a later date.