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

Course | Title | Hours
--- | --- | ---
Any Semester |  | 
First Year
Fall
RHET:1030 or ENGL:1200 | Rhetoric or The Interpretation of Literature | 3 - 4
MATH:1850 | Calculus I | 4
GE CLAS Core: Values and Culture | 3
CSI:1600 | Success at Iowa | 2
Elective course | 2

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

Hours 14-15

Second Year
Fall
GE CLAS Core: World Languages First Level Proficiency or elective course | 4 - 5
MATH:2700 | Introduction to Linear Algebra | 4
MATH:2850 | Calculus III | 4
GE CLAS Core: Social Sciences | 3
Elective course | 1

Hours 15-16

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

Hours 16-17

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

Hours 16-17

Spring
GE CLAS Core: World Languages Fourth Level Proficiency or elective course | 4 - 5
Major: required post-calculus math elective course | 3
Elective course | 3
GE CLAS Core: Natural Sciences without Lab | 3
Elective course | 3

Hours 16-17

Fourth Year
Fall
Major: required upper-level math elective course | 3
GE CLAS Core: International and Global Issues | 3
Elective course | 3
Elective course | 3
Elective course | 3

Hours 15

Spring
Major: required post-calculus math elective course | 3
Elective course | 3
Elective course | 3
Elective course | 3
Program B

<table>
<thead>
<tr>
<th>Course</th>
<th>Title</th>
<th>Hours</th>
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<tbody>
<tr>
<td>Academic Career</td>
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Any Semester

Program B is intended for students seeking secondary school teaching licensure.

Completion of mathematics (program B) BA, Teacher Education Program, and all general education requirements exceeds the minimum 120 s.h. required for graduation. Students should expect to take higher than average number of hours per term, take summer classes, and/or extend graduation time frame beyond four years.

Admission to the Teacher Education Program, College of Education, is by competitive application. For information about application requirements, process, and deadlines, please consult an advisor for the College of Education.

First Year

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<thead>
<tr>
<th>Course</th>
<th>Title</th>
<th>Hours</th>
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<tbody>
<tr>
<td>Fall</td>
<td></td>
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</table>

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.

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.

Electives may also be used to complete additional hours in the major up to a total of 56 s.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.

### Hours

<table>
<thead>
<tr>
<th>Total Hours</th>
<th>123-129</th>
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#### Spring

<table>
<thead>
<tr>
<th>Course</th>
<th>Title</th>
<th>Hours</th>
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<tbody>
<tr>
<td>Fall</td>
<td></td>
<td></td>
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Total Hours...
Course(s) required for second degree, including a course that satisfies the GE CLAS Core Values and Culture area - consult sample plan for BA in mathematics education

Apply for student teaching (see the College of Education website for application instructions and deadlines)

<table>
<thead>
<tr>
<th>Hours</th>
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<tbody>
<tr>
<td>14</td>
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**Fourth Year**

**Fall**

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Name</th>
<th>Hours</th>
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</thead>
<tbody>
<tr>
<td>CS:1210</td>
<td>Computer Science I: Fundamentals</td>
<td>4</td>
</tr>
<tr>
<td>Major:</td>
<td>required post-calculus math elective course</td>
<td>3 - 4</td>
</tr>
<tr>
<td>GE CLAS Core: Literary, Visual, and Performing Arts</td>
<td>3</td>
<td></td>
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Course(s) required for second degree - consult sample plan for BA in mathematics education

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<tr>
<th>Hours</th>
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<tr>
<td>13-14</td>
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</table>

**Spring**

<table>
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<tr>
<th>Course(s) required for second degree - consult sample plan for BA in mathematics education</th>
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</thead>
</table>

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

Exam: edTPA

<table>
<thead>
<tr>
<th>Hours</th>
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<tbody>
<tr>
<td>15</td>
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**Total Hours**

<table>
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<th>Hours</th>
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<tbody>
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<td>126-133</td>
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</tbody>
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a Required for admission into the Teacher Education Program.
b Enrollment in math courses requires completion of a placement exam.
c 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.
d Complete the College of Education verification of 10 hour field experience form available on the Office of Student Services web page.
e 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.
f Please see the College of Education website for detailed application instructions and deadlines. Admission is selective and a priority deadline exists.
g Typically this course is offered in spring semesters only. Check MyUI for course availability since offerings are subject to change.
h Students must complete MATH:4050, a fall-only course, or MATH:4060, a spring-only course.
i Post-calculus courses are numbered 2000 or above, excluding: MATH:3700, MATH:3750, MATH:3995, MATH:3996, MATH:3997, MATH:4010, and MATH:4020.
j 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.
k As a requirement for completion of an approved Teacher Education Program for initial teaching licensure, the state of Iowa requires a passing score on this exam. The assessment is required before recommendation for licensure or certification to any state.