Bachelor of Arts/Science in Mathematics

The Bachelor of Arts / Science in Mathematics degree has six basic components:

1. General Education & Institutional Requirements
2. Foreign Language Requirement (Bachelor of Arts only)
3. Mathematics Core Requirements
4. Mathematics Electives
5. Mathematics Program Requirements
6. Electives: college-level courses from any prefix to meet Graduation Requirements (p. 2)

DSU General Education & Institutional Requirements

All DSU General Education and Institutional requirements must be fulfilled. A previously earned degree may fulfill those requirements, but courses must be equivalent to DSU’s minimum General Education standards in American Institutions, English, and Mathematics.

<table>
<thead>
<tr>
<th>Code</th>
<th>Title</th>
<th>Hours</th>
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<tbody>
<tr>
<td></td>
<td>Institutional Requirement in Computer Literacy (<a href="catalog.dixie.edu/programs/generaleducation/#gerequirementstext">catalog.dixie.edu/programs/generaleducation/#gerequirementstext</a>)</td>
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<tr>
<td></td>
<td>Computer Literacy</td>
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<td>General Education Core Requirements (<a href="catalog.dixie.edu/programs/generaleducation/#gerequirementstext">catalog.dixie.edu/programs/generaleducation/#gerequirementstext</a>)</td>
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<tr>
<td></td>
<td>English</td>
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<td>Information Literacy</td>
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<tr>
<td></td>
<td>Mathematics</td>
<td>3-5</td>
</tr>
<tr>
<td></td>
<td>American Institutions</td>
<td>3-6</td>
</tr>
<tr>
<td></td>
<td>Life Sciences</td>
<td>3-10</td>
</tr>
<tr>
<td></td>
<td>Physical Sciences</td>
<td>3-5</td>
</tr>
<tr>
<td></td>
<td>Laboratory Science</td>
<td>0-1</td>
</tr>
<tr>
<td></td>
<td>Fine Arts</td>
<td>3</td>
</tr>
<tr>
<td></td>
<td>Literature/Humanities</td>
<td>3</td>
</tr>
<tr>
<td></td>
<td>Social &amp; Behavioral Sciences</td>
<td>3</td>
</tr>
<tr>
<td></td>
<td>Exploration</td>
<td>3-5</td>
</tr>
<tr>
<td></td>
<td>Two (2) Global &amp; Cultural Perspectives Courses</td>
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<table>
<thead>
<tr>
<th>Code</th>
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<tr>
<td></td>
<td>Bachelor of Arts: Foreign Language Requirement</td>
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<tr>
<td></td>
<td>Complete one of the following:</td>
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<tr>
<td></td>
<td>- Complete 16 credits in a single foreign language, through earned credit (grade C or higher), credit by examination, or vertical credit from the courses listed on the GE Foreign Language Requirement page 1</td>
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<tr>
<td></td>
<td>- Complete a 2020 or higher foreign language course (grade C or higher)</td>
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<tr>
<td></td>
<td>- Complete a 3060 foreign language course listed below (grade C or higher)</td>
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<tr>
<td></td>
<td>- Receive 16 transfer credits for GEFL 1000 (8) and GEFL 2000 (8) in a single foreign language (grade C or higher)</td>
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</tr>
<tr>
<td></td>
<td>OR</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Complete a 1020 course listed below in a second foreign language (grade C or higher) AND one of the following:</td>
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<tr>
<td></td>
<td>1. In a language not taught at DSU, receive 12 FLATS exam credits for FLAT 1000 (8) and FLAT 2000 (4)</td>
<td></td>
</tr>
<tr>
<td></td>
<td>OR</td>
<td></td>
</tr>
<tr>
<td></td>
<td>2. In a language not taught at DSU, receive 12 transfer credits articulated as GEFL 1000 (8) and GEFL 2000 (4) (all grade C or higher)</td>
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</tr>
<tr>
<td></td>
<td>OR</td>
<td></td>
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<tr>
<td></td>
<td>Available only to students who are nonnative English speakers, complete one of the following:</td>
<td></td>
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<tr>
<td></td>
<td>- Complete 16 credits of ESL courses listed below (grade B or higher)</td>
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<tr>
<td></td>
<td>- Complete ESL 2750 (<a href="catalog.dixie.edu/search/?P=ESL%202750">catalog.dixie.edu/search/?P=ESL%202750</a>) or ESL 2760 (<a href="catalog.dixie.edu/search/?P=ESL%202760">catalog.dixie.edu/search/?P=ESL%202760</a>) (grade B or higher).</td>
<td></td>
</tr>
<tr>
<td></td>
<td>- Submit one of the following test scores required for unconditional DSU admission: TOEFL (61 iBT, 173 CBT, or 500 PBT); or Michigan (70); or USU-IELE equivalent score. Other tests may be accepted for admission to DSU but will not fulfill this requirement. Official scores must be submitted to the Registrar’s Office.</td>
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Total Hours 3-16
Bachelor of Arts/Science in Mathematics

1 General Education Foreign Language Classes may be found on the General Education page (catalog.dixie.edu/programs/generaleducation/#foreignlanguagerequirementtext).

Core Discipline Requirements

<table>
<thead>
<tr>
<th>Course</th>
<th>Title</th>
<th>Hours</th>
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<tbody>
<tr>
<td>MATH 1210</td>
<td>Calculus I</td>
<td>4</td>
</tr>
<tr>
<td>MATH 1220</td>
<td>Calculus II</td>
<td>4</td>
</tr>
<tr>
<td>MATH 2200</td>
<td>Discrete Mathematics</td>
<td>3</td>
</tr>
<tr>
<td>MATH 2210</td>
<td>Multivariable Calculus</td>
<td>4</td>
</tr>
<tr>
<td>MATH 2270</td>
<td>Linear Algebra</td>
<td>3</td>
</tr>
<tr>
<td>MATH 2280</td>
<td>Ordinary Differential Equation</td>
<td>3</td>
</tr>
<tr>
<td>MATH 3200</td>
<td>Introduction to Analysis I</td>
<td>3</td>
</tr>
<tr>
<td>MATH 3400</td>
<td>Probability &amp; Statistics</td>
<td>3</td>
</tr>
<tr>
<td>MATH 3900</td>
<td>Number Theory</td>
<td>3</td>
</tr>
<tr>
<td>MATH 4000</td>
<td>Foundations of Algebra</td>
<td>3</td>
</tr>
<tr>
<td>MATH 4900</td>
<td>Senior Capstone Seminar</td>
<td>3</td>
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</tbody>
</table>

Mathematics Electives

Complete 12 credits from the following:

<table>
<thead>
<tr>
<th>Course</th>
<th>Title</th>
<th>Hours</th>
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</thead>
<tbody>
<tr>
<td>MATH 3000</td>
<td>History of Mathematics</td>
<td>3</td>
</tr>
<tr>
<td>MATH 3100</td>
<td>Euclidean / Non-Euclidean Geom</td>
<td>3</td>
</tr>
<tr>
<td>MATH 3150</td>
<td>Introduction to Partial Differential Equations</td>
<td>3</td>
</tr>
<tr>
<td>MATH 3210</td>
<td>Introduction to Analysis II</td>
<td>3</td>
</tr>
<tr>
<td>MATH 3500</td>
<td>Numerical Analysis</td>
<td>3</td>
</tr>
<tr>
<td>MATH 4010</td>
<td>Abstract Algebra</td>
<td>3</td>
</tr>
<tr>
<td>MATH 4100</td>
<td>Introduction to Topology</td>
<td>3</td>
</tr>
<tr>
<td>MATH 4200</td>
<td>Introduction to Complex Analysis</td>
<td>3</td>
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Mathematics Program Requirements

<table>
<thead>
<tr>
<th>Course</th>
<th>Title</th>
<th>Hours</th>
</tr>
</thead>
<tbody>
<tr>
<td>CS 1400</td>
<td>Fundamentals of Programming</td>
<td>3</td>
</tr>
<tr>
<td>PHYS 2210</td>
<td>Physics/Scientists Engineers I</td>
<td>5</td>
</tr>
<tr>
<td>&amp; PHYS 2215</td>
<td>and Physics/Scientists Engineers Lab</td>
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</tr>
<tr>
<td>PHYS 2220</td>
<td>Physics/Scientists Engineers II</td>
<td>5</td>
</tr>
<tr>
<td>&amp; PHYS 2225</td>
<td>and Physics/Scientists Engineers II Lab</td>
<td></td>
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</tbody>
</table>

Graduation Requirements

1. Complete a minimum of 120 college-level credits (1000 and above).
2. Complete at least 40 upper-division credits (3000 and above).
3. Complete at least 30 upper-division credits at DSU for institutional residency.
4. Grade C or higher (not C-) required in each Core Discipline Requirement, Mathematics Required Elective, and Mathematics Program Requirement course.
5. Cumulative GPA 2.0 or higher

Graduation Plan

<table>
<thead>
<tr>
<th>Course</th>
<th>Title</th>
<th>Hours</th>
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<tbody>
<tr>
<td><strong>1st Year</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td><strong>Fall Semester</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td>MATH 1001</td>
<td>FYE: Mathematics</td>
<td>1</td>
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<tr>
<td>MATH 1210</td>
<td>Calculus I</td>
<td>4</td>
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<tr>
<td>CIS 1200</td>
<td>Computer Literacy</td>
<td>3</td>
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<tr>
<td>General Education (American Institutions) (catalog.dixie.edu/programs/generaleducation/#gerequirementstext)</td>
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<tr>
<td>General Education (Fine Arts) (catalog.dixie.edu/programs/generaleducation/#gerequirementstext)</td>
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<tr>
<td>General Elective</td>
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<tr>
<td><strong>1st Year</strong></td>
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<td>15</td>
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<tr>
<td><strong>Spring Semester</strong></td>
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<tr>
<td>MATH 1220</td>
<td>Calculus II</td>
<td>4</td>
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<tr>
<td>ENGL 1010</td>
<td>Introduction to Writing</td>
<td>3</td>
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</table>

<table>
<thead>
<tr>
<th>Course</th>
<th>Title</th>
<th>Hours</th>
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<tr>
<td><strong>2nd Year</strong></td>
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<td><strong>Fall Semester</strong></td>
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<td></td>
</tr>
<tr>
<td><strong>2nd Year</strong></td>
<td></td>
<td></td>
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<tr>
<td>Course Code</td>
<td>Course Title</td>
<td>Credits</td>
</tr>
<tr>
<td>-------------</td>
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<tr>
<td>LIB 1010</td>
<td>Information Literacy</td>
<td>1</td>
</tr>
<tr>
<td></td>
<td>General Education (Life Sciences)</td>
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<td>General Education (Social &amp; Behavioral Sciences)</td>
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### 2nd Year

#### Fall Semester

<table>
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<tr>
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<th>Course Title</th>
<th>Credits</th>
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<tbody>
<tr>
<td>MATH 2200</td>
<td>Discrete Mathematics</td>
<td>3</td>
</tr>
<tr>
<td>MATH 2270</td>
<td>Linear Algebra</td>
<td>3</td>
</tr>
<tr>
<td>ENGL 2010</td>
<td>Intern Writing Selected Topics:</td>
<td>3</td>
</tr>
<tr>
<td>PHYS 2210</td>
<td>Physics/Scientists Engineers I</td>
<td>5</td>
</tr>
<tr>
<td>&amp; PHYS 2215</td>
<td>and Physics/Scientists Engineers Lab</td>
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#### Spring Semester

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
<th>Credits</th>
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<tbody>
<tr>
<td>MATH 2210</td>
<td>Multivariable Calculus</td>
<td>4</td>
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<tr>
<td>MATH 2280</td>
<td>Ordinary Differential Equation</td>
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<td>CS 1400</td>
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<tr>
<td>PHYS 2220</td>
<td>Physics/Scientists Engineers II</td>
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<td>&amp; PHYS 2225</td>
<td>and Physics/Scientists Engineers II Lab</td>
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### 3rd Year

#### Fall Semester

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<tbody>
<tr>
<td>MATH 4000</td>
<td>Foundations of Algebra</td>
<td>3</td>
</tr>
<tr>
<td>MATH Elective (Approved MATH Elective)</td>
<td>3</td>
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<tr>
<td>MATH Elective (Approved MATH Elective)</td>
<td>3</td>
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</tr>
<tr>
<td>General Education (Exploration)</td>
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<tr>
<td>Upper Division Elective</td>
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#### Spring Semester

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
<th>Credits</th>
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<tbody>
<tr>
<td>MATH 3400</td>
<td>Probability &amp; Statistics</td>
<td>3</td>
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<tr>
<td>MATH Elective (MATH Elective (see list))</td>
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<tr>
<td>MATH Elective (MATH Elective (see list))</td>
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<tr>
<td>General Education (Global and Cultural Perspectives)</td>
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<tr>
<td>General Elective</td>
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### 4th Year

#### Fall Semester

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<tbody>
<tr>
<td>MATH 3200</td>
<td>Introduction to Analysis I</td>
<td>3</td>
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<tr>
<td>MATH Elective (Approved MATH Elective)</td>
<td>3</td>
<td></td>
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<tr>
<td>General Education (Global and Cultural Perspectives)</td>
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<tr>
<td>Upper Division Elective</td>
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#### Spring Semester

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<tr>
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<th>Course Title</th>
<th>Credits</th>
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<tbody>
<tr>
<td>MATH 3900</td>
<td>Number Theory</td>
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<td>MATH 4900</td>
<td>Senior Capstone Seminar</td>
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<td>General Education (Literature/Humanities)</td>
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<td>Upper Division Elective</td>
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</table>
Bachelor of Arts/Science in Mathematics

<table>
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<tr>
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<tbody>
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*NOTE: Please see Math Department Advisor for degree plan*