# Mathematics, B.S.

2023–24 Catalog

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The example four-year plan is designed to provide a blueprint for students to complete their degrees within four years. These plans include recommended sequences of courses. Individual plans will vary based on previously earned credit, such as Dual Enrollment and AP credit, as well as the student's academic goals. Students will work with an academic advisor to develop a more individualized plan to complete their degree.

This example four-year plan is applicable to students admitted during the 2023–24 academic year.

Total Credits Required: 120 credits
Required GPA for Graduation: 2.0 (institutional)

Courses requiring a C or better are denoted with an asterisk (*). Courses only offered in the fall semester are denoted with a plus sign (+). Courses only offered in the spring semester are denoted with a double-plus sign (++).
Legend is available on the last page of this document.

| Year 1 | | | | | | | |
|---|---|---|---|---|---|---|---|
| Fall | | | | Spring | | | |
| Course | Title | Hours | Area | Course | Title | Hours | Area |
| MATH 0001 | First-Year Academic Seminar | 1 | | MATH 1262* | Calculus II (pre-req to MATH 2263, MATH 3030, and PHYS 2212/2212L) | 4 | F |
| ENGL 1101* | English Composition I (pre-req to ENGL 1102) | 3 | A | CSCI 1302 | Computer Science II | 3 | Cognate |
| MATH 1261* | Calculus I (pre-req to MATH 1262, MATH 2150, and PHYS 2211/2211L) | 4 | A | ENGL 1102 | English Composition II | 3 | A |
| CSCI 1301* | Computer Science I (pre-req to CSCI 1302) | 3 | Cognate | MATH 2150* | Linear Algebra | 3 | F |
| GC1Y 1000 | Critical Thinking (pre-req to GC2Y 2000) | 3 | B | Core Area E | Social Science (student's choice) | 3 | E |
| **Semester Hours** | | **14** | | **Semester Hours** | | **16** | |
| **Summer** | If starting Area A with MATH 1113: Pre-Calculus, student should consider taking MATH 1262 in the summer of Year 1. | | | | | | |
| **Notes:** | Area A and GC1Y 1000 must be completed by 30 earned hours.<br>MATH 0001 does not count toward the 120 hours required for graduation. | | | | | | |

| Year 2 | | | | | | | |
|---|---|---|---|---|---|---|---|
| **Fall** | | | | **Spring** | | | |
| **Course** | **Title** | **Hours** | **Area** | **Course** | **Title** | **Hours** | **Area** |
| MATH 2263* | Calculus III<br>(pre-req to MATH 4261, 4300, and 4340) | 4 | F | MATH 4340* | Differential Equations | 3 | Major |
| MATH 3030* | Foundations of Mathematics<br>(pre-req to MATH 4081, 4110, 4261, 4300, and 4510) | 3 | Major | MATH 4510*++ | Geometry<br>(pre-req to MATH 4081 and 4261) | 3 | Major |
| MATH 1401 | Elementary Statistics | 3 | Cognate | GC2Y 2000 | Global Perspectives | 4 | B |
| Core Area C1 | Humanities and Ethics (student's choice) | 3 | C | Core Area C2 | Fine Arts (student's choice) | 3 | Cognate |
| Lang 1001 | World Language I (1001-level) | 3 | F | Lang 1002 | World Language II (1002-level) | 3 | F |
| **Semester Hours** | | **16** | | **Semester Hours** | | **16** | |
| **Summer** | GC2Y 2000 can be completed as part of a study abroad program in the summer. | | | | | | |
| **Notes:** | Student must complete a world language course at the XXXX level or higher. Complete the WebCAPE exam to determine placement for first course.<br>GC2Y 2000 must be taken between 30–59 earned hours. | | | | | | |

| Year 3 | | | | | | | |
|---|---|---|---|---|---|---|---|
| **Fall** | | | | **Spring** | | | |
| **Course** | **Title** | **Hours** | **Area** | **Course** | **Title** | **Hours** | **Area** |
| MATH 4300*+ | Complex Variables | 3 | Major | MATH 4261*++ | Mathematical Analysis I | 3 | Major |
| MATH 4110*+ | Number Theory<br>(pre-req to MATH 4081 and 4261) | 3 | Major | MATH 4989* | Intro to Research in Math<br>(pre-req to MATH 4990) | 1 | Major |
| CHEM 1211K<br>or<br>PHYS 2211<br>+PHYS 2211L | Principles of Chemistry I & Lab<br>(pre-req to CHEM 1212K)<br>or<br>Introductory Physics I & Lab<br>(pre-reqs to PHYS 2212/2212L) | 4 | Cognate | CHEM 1212K<br>or<br>PHYS 2212<br>+PHYS 2212L | Principles of Chemistry II & Lab<br>or<br>Introductory Physics II & Lab | 4 | Cognate |
| Core Area E | Social Science (student's choice) | 3 | E | Core Area E | Social Science (student's choice) | 3 | E |
| Gen Elective | Any general elective course | 3 | Elective | Gen Elective | Any general elective course | 3 | Elective |
| **Semester Hours** | | **16** | | **Semester Hours** | | **14** | |
| **Notes:** | Students must secure research advisor and arrange registration for MATH 4989 in the spring of Year 3.<br>General electives can be in any discipline and any level (1000–4999). | | | | | | |

| Year 4 | | | | | | | |
|---|---|---|---|---|---|---|---|
| **Fall** | | | | **Spring** | | | |
| **Course** | **Title** | **Hours** | **Area** | **Course** | **Title** | **Hours** | **Area** |
| MATH 4990* | Senior Project | 3 | Major | MATH Elective* | 4000-level MATH elective | 3 | Major |
| MATH 4081*+ | Abstract Algebra I | 3 | Major | Gen Elective | Any general elective course | 3 | Elective |
| Gen Elective | Any general elective course | 3 | Elective | Gen Elective | Any general elective course | 3 | Elective |
| Gen Elective | Any general elective course | 3 | Elective | Gen Elective | Any general elective course | 3 | Elective |
| Gen Elective | Any general elective course | 3 | Elective | Gen Elective | Any general elective course | 3 | Elective |
| **Semester Hours** | | **15** | | **Semester Hours** | | **15** | |
| **Notes:** | MATH 4990 is a continuation of the capstone experience and should immediately follow MATH 4989. Arrangements for registration should be coordinated through your research advisor.<br>One 4000-level MATH elective will be offered per year. Students are advised to take a 4000-level MATH elective when it is offered (provided they meet the prerequisite).<br>General electives can be in any discipline and any level (1000–4999). | | | | | | |

| Legend | |
|---|---|
| **Area** | **This section of the plan references the area of the curriculum the course fulfills.** |
| A | Core Area A: Essential Skills |
| B | Core Area B: Institutional Options |
| C | Core Area C: Humanities, Ethics, and Fine Arts |
| D | Core Area D: Science, Technology, and Math |
| E | Core Area E: Social Sciences |
| F | Core Area F: Major Directed Core Requirements |
| Major | Major Requirements |
| Elective | Course(s) a student selects. Hours are needed to meet overall graduation hours. Number of electives varies per major. Electives can be used towards GC Journeys, minors, or professional/graduate school pre-requisites, or to take courses of interest. |
| Cognate | Cognate courses are required courses within a student's curriculum. These courses are connected to the major but may be from other academic disciplines. |