

MATHEMATICS - GENERAL (BACHELOR OF SCIENCE)

The Mathematics major consists of prescriptive common courses, prescriptive concentration courses, and elective courses. The General concentration emphasizes coursework designed to give the student sound fundamental skills and to integrate these fundamental skills into a broad knowledge of the content and methods of mathematics as a liberal art (39 hours).

The Mathematics major requires completion of the following common courses with a "C" or better:

| Course | Title | Credits |
|--------|---|---------|
| MS 125 | Calculus I | 4 |
| MS 126 | Calculus II | 4 |
| MS 227 | Calculus III | 4 |
| MS 300 | Introduction to Advanced Mathematics (WI) | 3 |
| MS 344 | Differential Equations | 3 |
| MS 352 | Linear Algebra | 3 |
| MS 415 | Advanced Calculus I (WI) | 3 |
| MS 441 | Abstract Algebra I (WI) | 3 |

The General concentration requires completion of the following concentration courses with a "C" or better:

| Course | Title | Credits |
|--------|------------------------------------|---------|
| MS 302 | Applied Probability and Statistics | 3 |
| MS 309 | Combinatorics | 3 |
| MS 323 | College Geometry | 3 |
| MS 475 | Seminar in Mathematics (WI) | 3 |

In addition to the common, concentration, and elective courses, this concentration requires the following support courses:

| Course | Title | Credits |
|------------------------------|--|---------|
| PHS 221 | Physics for Scientists and Engineers I w/Lab | 4 |
| Select one of the following: | | 3 |
| CS 230 | Fundamentals of Computing (or higher programming course) | |
| CS 231 | Computer Programming I (or higher programming course) | |

A minor is not required for students majoring in Mathematics.

Note: This plan of study reflects the mathematics program beginning with MS 125 Calculus I (4). Freshman Mathematics majors needing additional preparation before beginning calculus will be placed in the appropriate algebra or precalculus courses that provide this preparation. See advisor.

In addition to courses noted below, candidates for graduation must successfully complete all JSU Academic Regulations. More information about general education requirements can be found in the Summary of Degrees/Requirements (<https://catalog.jsu.edu/undergraduate/summary-degrees-requirements/>) section of the catalog.

| Freshman | | Hours |
|--|--|------------|
| Fall | | |
| EH Composition sequence | | 3 |
| MS 125 | Calculus I | 4 |
| History | | 3 |
| SSC 101 | First Year Experience | 0 |
| Select one of the following: | | 3 |
| CS 230 | Fundamentals of Computing (or higher programming course) | |
| CS 231 | Computer Programming I (or higher programming course) | |
| Hours | | 13 |
| Spring | | |
| EH Composition sequence | | 3 |
| Fine Arts | | 3 |
| MS 126 | Calculus II | 4 |
| History/Social/Behavioral Science ¹ | | 3 |
| Social/Behavioral Science | | 3 |
| Hours | | 16 |
| Sophomore | | |
| Fall | | |
| EH 141 | Speech | 3 |
| Literature | | 3 |
| PHS 221 | Physics for Scientists and Engineers I w/Lab | 4 |
| MS 227 | Calculus III | 4 |
| Hours | | 14 |
| Spring | | |
| Humanities & Fine Arts ¹ | | 3 |
| Natural Science | | 4 |
| Social/Behavioral Science | | 3 |
| MS 300 | Introduction to Advanced Mathematics (WI) | 3 |
| MS 352 | Linear Algebra | 3 |
| Hours | | 16 |
| Junior | | |
| Fall | | |
| MS 309 | Combinatorics | 3 |
| MS 344 | Differential Equations | 3 |
| General Electives | | 10 |
| Hours | | 16 |
| Spring | | |
| MS 323 | College Geometry | 3 |
| MS 441 | Abstract Algebra I (WI) | 3 |
| General Electives | | 9 |
| Hours | | 15 |
| Senior | | |
| Fall | | |
| MS 302 | Applied Probability and Statistics | 3 |
| MS 415 | Advanced Calculus I (WI) | 3 |
| General Electives | | 9 |
| Hours | | 15 |
| Spring | | |
| MS 475 | Seminar in Mathematics (WI) | 3 |
| General Electives | | 12 |
| Hours | | 15 |
| Total Hours | | 120 |

¹ Either a history sequence or a literature sequence is required.