

# 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 211 & PHS 213	Physics for Scientists and Engineers I and Elementary Physics Laboratory Techniques I	5
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 (catalog.jsu.edu/undergraduate/summary-degrees-requirements/) section of the catalog.*

Course	Title	Hours
<b>Freshman</b>		
<b>Fall</b>		
EH Composition sequence		3
MS 125	Calculus I	4
History		3
STU 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)	
<b>Hours</b>		<b>13</b>
<b>Spring</b>		
EH Composition sequence		3
Fine Arts		3
MS 126	Calculus II	4
History/Social/Behavioral Science <sup>1</sup>		3
Social/Behavioral Science		3
<b>Hours</b>		<b>16</b>
<b>Sophomore</b>		
<b>Fall</b>		
Literature		3
EH 141	Oral Communication	3
PHS 211 & PHS 213	Physics for Scientists and Engineers I and Elementary Physics Laboratory Techniques I	5
MS 227	Calculus III	4
<b>Hours</b>		<b>15</b>
<b>Spring</b>		
Humanities & Fine Arts <sup>1</sup>		3
Natural Science		4
Social/Behavioral Science		3
MS 300	Introduction to Advanced Mathematics (WI)	3
MS 352	Linear Algebra	3
<b>Hours</b>		<b>16</b>
<b>Junior</b>		
<b>Fall</b>		
MS 309	Combinatorics	3
MS 344	Differential Equations	3
General Electives		9
<b>Hours</b>		<b>15</b>
<b>Spring</b>		
MS 323	College Geometry	3
MS 441	Abstract Algebra I (WI)	3
General Electives		9
<b>Hours</b>		<b>15</b>
<b>Senior</b>		
<b>Fall</b>		
MS 302	Applied Probability and Statistics	3
MS 415	Advanced Calculus I (WI)	3
General Electives		9
<b>Hours</b>		<b>15</b>
<b>Spring</b>		
MS 475	Seminar in Mathematics (WI)	3
General Electives		12
<b>Hours</b>		<b>15</b>
<b>Total Hours</b>		<b>120</b>

<sup>1</sup> Either a history sequence or a literature sequence is required.