

MATHEMATICS - TRADITIONAL (BACHELOR OF SCIENCE)

The Traditional concentration emphasizes coursework to prepare the student for graduate work in mathematics and a career in mathematics (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

This concentration requires four elective courses selected from the departmental list of approved mathematics electives:

- At least two MS courses numbered 300 or higher¹
- at least two MS courses numbered 400 or higher

¹ Excludes MS 322 Selected Survey of Secondary School Mathematics (3), MS 331 Peer Educator (1), and MS 332 Peer Educator (2).

In addition to the common 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 schedule 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
Freshman		
Fall		
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)	
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		
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
Hours		15
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 344	Differential Equations	3
Mathematics 300+ Electives		3
General Electives		9
Hours		15
Spring		
MS 415	Advanced Calculus I (WI)	3
Mathematics 300+ Electives		3
General Electives		9
Hours		15
Senior		
Fall		
MS 441	Abstract Algebra I (WI)	3
Mathematics 400+ Electives		3
General Electives		9
Hours		15
Spring		
Mathematics 400+ Electives		3
General Electives		12
Hours		15
Total Hours		120

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