Bachelor of Science

Mathematics with a Major in Secondary Mathematics Education (6-12) (BS)

Degree Program Guide

The Degree Program Guide is a suggested curriculum to complete this degree program in four years. It is just one of several plans that will work and is presented only as broad guidance to students. Each student is strongly encouraged to develop a customized plan in consultation with their academic advisor. Additional information can also be found in Degree Works.

Course	Title	Credit Hours
Freshman		
Fall		
ENGL 110C	English Composition (Grade of C or better required)	3
MATH 211	Calculus I	4
Human Behavior		3
Information Literacy and Research (CS 121G preferred)		3
STEM 101	Step 1 – Inquiry Approaches to Teaching STEM	1
	Credit Hours	**14**
Spring		
Select one of the following:		3
ENGL 211C	Writing, Rhetoric, and Research	
ENGL 231C	Writing, Rhetoric, and Research: Special Topics	
MATH 212	Calculus II	4
Oral Communication		3
Philosophy and Ethics (PHIL 120P recommended)		3
STEM 102	Step 2 - Inquiry Based STEM Lesson Design	1
	Credit Hours	**14**
Sophomore		
Fall		
MATH 307	Ordinary Differential Equations	3
Human Creativity		3
CS 151 or CS 153	Introduction to Programming with Java or Introduction to Programming with Python	4
Nature of Science I		4
STEM 201	Knowing and Learning in STEM Education	3
	Credit Hours	**17**
Spring		
MATH 312	Calculus III	4
Interpreting the Past		3
Literature		3
Nature of Science II		4
STEM 202	Classroom Interactions in STEM Education	3
	Credit Hours	**17**
Junior		
Fall		
MATH 311W	Abstract Algebra (C or better required)	3
MATH 317	Calculus IV: Introductory Analysis	3
MATH 375	Advanced Concepts for Secondary Educators: Function and Modeling	3
STAT 330 or STAT 331		3
MATH 400-level elective (or approved BDA course)		3
Elective		1
	Credit Hours	**16**
Spring		
MATH 316	Introductory Linear Algebra	3
MATH 400	History of Mathematics	3
MATH 404	Fundamental Concepts of Geometry	3
STAT 310 or STAT 431		
SCI 468	Research Methods in Math and Sciences (Satisfied by BIOL 468W, CHEM 468, OEAS 468W or PHYS 468W))	3
Impact of Technology		3
	Credit Hours	**15**
Senior		
Fall		
MATH 406	Number Theory and Discrete Mathematics	3
MATH 417 or MATH 422		3
STAT 310 or STAT 431		3
MATH 400-level elective (or approved BDA course)		3
STEM 401	Project Based Instruction in STEM Education	3
	Credit Hours	**15**
Spring		
STEM 402	Perspectives on STEM	3
STEM 485	Apprentice Teaching	9
	Credit Hours	**12**
	Total Credit Hours	**120**

Language and Culture I & II may be met in high school and are not included in this four-year plan. Please see requirement details.