

# Bachelor of Science

# Mathematics with a Major in Applied Mathematics (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
<b>Freshman</b>		
<b>Fall</b>		
ENGL 110C	English Composition (Grade of C or better required)	3
MATH 211	Calculus I	4
	Human Behavior (ECON 202S required for the Actuarial Mathematics major)	3
	Information Literacy and Research (CS 121G preferred. IT 150G is acceptable substitute for the Actuarial Mathematics major or the Big Data Analytics major)	3
	Elective or Language & Culture I (May be waived; See requirement details)	3
<b>Credit Hours</b>		<b>16</b>
<b>Spring</b>		
	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
	Impact of Technology (IT 360T suggested for Actuarial Mathematics major)	3
	Elective or Language & Culture II (May be waived; See requirement details)	3
<b>Credit Hours</b>		<b>16</b>
<b>Sophomore</b>		
<b>Fall</b>		
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 (Course depends on major chosen. See requirement details)	4
<b>Credit Hours</b>		<b>14</b>
<b>Spring</b>		
MATH 312	Calculus III	4
	Interpreting the Past	3
	Philosophy and Ethics (PHIL 120P recommended)	3

	Nature of Science II (Course depends on major chosen. See requirement details)	4
<b>Credit Hours</b>		<b>14</b>
<b>Junior</b>		
<b>Fall</b>		
MATH 311W	Abstract Algebra (C or better required)	3
	STAT 310 or STAT 331 (Statistics/Biostatistics and Actuarial Mathematics Majors must take STAT 331)	3
	Literature	3
	Major course	3
	Upper-Division General Education Course or Minor	3
<b>Credit Hours</b>		<b>15</b>
<b>Spring</b>		
MATH 316	Introductory Linear Algebra	3
MATH 317	Calculus IV: Introductory Analysis	3
	STAT 330 or STAT 431 (Statistics/Biostatistics and Actuarial Mathematics majors take STAT 431)	3
	Major course	3
	Upper-Division General Education Course or Minor	3
<b>Credit Hours</b>		<b>15</b>
<b>Senior</b>		
<b>Fall</b>		
	Major course	3
	Major course	3
	Elective or Major Course if Big Data Analytics major	3
	Elective or STAT 310	3
	Minor or Elective	3
<b>Credit Hours</b>		<b>15</b>
<b>Spring</b>		
	Major course	3
	Major course	3
	Elective or Major Course if Big Data Analytics major	3
	Elective	3
	Minor or Elective	3
<b>Credit Hours</b>		<b>15</b>
<b>Total Credit Hours</b>		<b>120</b>