

# Bachelor of Science

# Biology with a Major in Secondary Biology 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
<b>Freshman</b>		
<b>First Semester</b>		
ENGL 110C	English Composition (Grade of C or better required)	3
MATH 162M	Precalculus I	3
BIOL 121N & BIOL 122N		4
CHEM 121N	Foundations of Chemistry I Lecture	3
CHEM 122N	Foundations of Chemistry I Laboratory	1
<b>Credit Hours</b>		<b>14</b>
<b>Second Semester</b>		
ENGL 211C or ENGL 231C	Writing, Rhetoric, and Research or Writing, Rhetoric, and Research: Special Topics	3
BIOL 123N & BIOL 124N		4
CHEM 123N	Foundations of Chemistry II Lecture	3
CHEM 124N	Foundations of Chemistry II Laboratory	1
MATH 205 or MATH 211	Calculus for Life Sciences or Calculus I	3
STEM 103	Foundations of STEM Teaching: An Inquiry-Based Approach	2
<b>Credit Hours</b>		<b>16</b>
<b>Sophomore</b>		
<b>First Semester</b>		
BIOL 291	Ecology	3
BIOL 292	Evolution	3
STAT 130M	Elementary Statistics	3
Oral Communication		3
STEM 201	Knowing and Learning in STEM Education	3
<b>Credit Hours</b>		<b>15</b>
<b>Second Semester</b>		
BIOL 293	Cell Biology	3
BIOL 294	Genetics	3
STEM 202	Classroom Interactions in STEM Education	3
Human Behavior		3

CS 121G or CS 126G or OEAS 130G	Introduction to Information Literacy and Research for Scientists or Honors: Introduction to Information Literacy and Research or Research Skills and Information Literacy for the Natural Sciences	3
<b>Credit Hours</b>		<b>15</b>

### Junior

#### First Semester

CHEM 211	Organic Chemistry I Lecture	3
BIOL 240 or BIOL 250	Fundamentals of Anatomy and Physiology I or Human Anatomy and Physiology I	4
Literature		3
BIOL 308	Botany	4

**Credit Hours 14**

#### Second Semester

300/400-level Biology elective		4
Select one of the following:		4
OEAS 111N	Physical Geology	
OEAS 112N	Historical Geology	
PHYS 111N	Introductory General Physics	
Philosophy and Ethics		3
Impact of Technology		3
Interpreting the Past		3

**Credit Hours 17**

### Senior

#### First Semester

BIOL 468W	Research Methods in Mathematics and Science (C or better required)	3
STEM 401	Project Based Instruction in STEM Education	3
BIOL 307 or BIOL 336	Invertebrate Zoology or Vertebrate Zoology	5
300/400-level Biology elective		3-4
Human Creativity		3

**Credit Hours 17-18**

#### Second Semester

STEM 485	Apprentice Teaching	9
STEM 402	Perspectives on STEM	3
<b>Credit Hours</b>		<b>12</b>

**Total Credit Hours 120-121**

Language and Culture I & II may be met in high school and are not included in this 4-year plan. Please see requirement details.