

# BIOLOGY

## B.S. in Biology (Secondary Certification Option)

Course	Number		Credit Hours
<b>I. CORE CURRICULUM (62 semester hours)</b>			
<b>AREA A Essential Skills (9 semester hours)</b>			
ENGL	1101	English Composition I	3
ENGL	1102	English Composition II	3
MATH	*1113	Precalculus Mathematics	3
<b>AREA B Institutional Options (4 semester hours)</b>			
COMM	1110	Fundamentals of Speech	3
Elective		BIOL 1001, COMM 1120, ENGL 1105, 1110, HIST 1050, 1051, HUMN 1000, 1100, PHED 1030, SOCI 1000	1
<b>AREA C Humanities/Fine Arts (6 semester hours)</b>			
Electives		ENGL 1201, 2111, 2112, 2120, 2121, 2130, 2131; HUMN 1201, MUSC 1100, or THEA 1100	6
<b>AREA D Science/Mathematics/Technology (12 semester hours)</b>			
MATH	2253	Calculus & Analytical Geometry I	4
CHEM	1211K	Principles of Chemistry I	4
CHEM	1212K	Principles of Chemistry II	4
<b>AREA E Social Sciences (12 semester hours)</b>			
HIST	2111 or 2112	United States History	3
POLS	1101	American Government	3
GEOG	1111	Physical Geography	3
Electives		ANTH 1103, ECON 2105, 2106, GEOG 1100, 1101, or 1111, HIST 1111, 1112, 2111, 2221, PHIL 1101, 1102, 1103, POLS 2101, 2201, 2301, 2401, PSYC 1101, 2101, 2103, 2204, 2250, SOCI 1101, 1160	3
<b>AREA F Major Related (18 semester hours)</b>			
BIOL	1107K	Principles of Biology I	4
BIOL	1108K	Principles of Biology II	4
CHEM	2211K	Organic Chemistry I	4
CHEM	2212K	Organic Chemistry II	4
BIOL	2270	Ethical Issues in Science	2
<b>PHYSICAL EDUCATION (1 semester hour)</b>			
PHED		Activity Elective	1
<b>II. UPPER LEVEL COURSES (31 or 32 semester hours)**</b>			
<b>Required (24)</b>			
BIOL	3200K	Cellular Biology	4
BIOL	3500K	Ecology	4
BIOL	4250	Evolution	3
BIOL	3400K	Genetics	4
BIOL	4000	Senior Seminar	2
MATH	2200	Introduction to Statistics	3
BIOL	4410K	Molecular Biology	4

**Electives (7 or 8 semester hours total)****Select 7 or 8 hours from the following:**

BIOL	3510K	Plant Biology	4
BIOL	4360K	Comparative Anatomy and Physiology of Vertebrates	4
BIOL	3520K	Invertebrate Zoology	4
BIOL	3340K	General Microbiology	4
BIOL	3300K	Developmental Biology	4
BIOL	4500K	Biotechnology	4
BIOL	4900	Special Topics in Biology	3
CHEM	3311K	Quantitative Analysis	4

**EDUCATION COURSES (36 semester hours)**

Students must be admitted to the Education Program prior to taking upper division (3000-4000) education courses.

EDUC	2110C	Investigating Critical and Contemporary Issues in Education	3
EDUC	2120	Exploring Socio-Cultural Perspectives on Diversity in Educational Contexts	3
EDUC	2130	Exploring Teaching and Learning	3
EDUC	3120	Teaching Secondary Students Who Are Exceptional, Diverse, and At-Risk	3
EDUC	3272	Classroom Management in Secondary Education/Field Experience I	2
EDUC	3273	Classroom Management in Secondary Education/Field Experience II	2
EDUC	3274	Classroom Management in Secondary Education/Field Experience III	2
EDUC	3902	Curriculum and Assessment for Secondary Math/Science Teachers	3
EDUC	4901	Methods and Strategies for Secondary Math/Science Teachers	3
EDUC	4952	Internship	8
EDUC	4953	Senior Seminar	1
READ	3456	Reading Across the Curriculum for Secondary Teachers	3

\* Math 2253 may be used if the student meets the prerequisites. The additional hour of credit will be applied to the upper level curriculum electives.