

## Bachelor of Science: Biology Education (grades 9-12)

Course	Title	Credits	Sem.
<b>Admission to Teacher Preparation Program Requirements</b>			
COMM XXX	Any Goal 1 COMM with COMM Prefix <i>(Minimum grade of C or better required for admission to TPP)</i>	3	B
ENG 151 or 251	Academic Writing or Writing in Professions <i>(Minimum grade of C or better required for admission to TPP)</i>	4	B
MATH XXX	Any Goal 4 MATH with MATH prefix <i>(Minimum grade of C or better required for admission to TPP)</i>	3-5	B
<b>Secondary Standards of Effective Practice Core</b>			
ED 101	Introduction to Education & Lab	3	B
ED 102	Tech: Classroom Applications & Portfolio	2	B, Su
PSYC 341	Child & Adolescent Psychology <i>*Pre-Requisite: PSYC 101</i>	3	B
ED 312	Human Relations for Teachers	3	B
SPED 290	Introduction to Special Needs & Lab <i>*Pre-Requisite: ED 101 &amp; Sophomore Status</i>	3	B
ED 301	The Teaching & Learning Process & Lab <i>*Should be taken prior to ED 304</i>	3	F
ED 304	Professional Development & Classroom Applications <i>*Pre-Requisite: ED 301</i>	1	S
ED 304L	Pre-Student Teaching Experience Practicum	0	S
<b>Not Required, but Strongly Encouraged</b>			
HLTH 225	Alcohol, Narcotics & Tobacco	2	F
<b>Required Content Classes</b>			
ED 407	Secondary Methods: Science & Lab	3	se
ED 430	Reading in the Content Areas	2	S
BIOL 200 & 200L	Introduction to Cellular Biology & Lab (BIOL 200L)	4	B
BIOL 201 & 201L	Introduction to Biodiversity & Evolution & Lab (BIOL 201L)	4	B
BIOL 287	Sophomore Biology Seminar	1	B
BIOL 302 & 302L	Botany & Lab (BIOL 302L) <i>*Pre-Requisites: BIOL 200 &amp; BIOL 201</i>	4	S
BIOL 303 & 303L	Microbiology & Lab (BIOL 303L) <i>*Pre-Requisites: BIOL 200</i>	5	F
BIOL 305 & 305L	Human Anatomy & Physiology I & Lab (BIOL 305L) <i>*Pre-Requisites: BIOL 200 &amp; CHEM 121 or BIOL 200 &amp; CHEM 231</i>	4	F
BIOL 311 & 311L	Ecology & Lab (BIOL 311L) <i>*Pre-Requisites: BIOL 200 &amp; BIOL 201 &amp; BIOL 287 &amp; BIOL 302</i>	4	F
BIOL 321 & 321L	Genetics & Lab (BIOL 321L) <i>*Pre-Requisites: BIOL 200 &amp; BIOL 201</i>	4	S
BIOL 487	Senior Biology Seminar <i>*Pre-Requisites: BIOL 200 &amp; BIOL 201 &amp; BIOL 287 &amp; Minimum 75 credits</i>	1	B
<b>Required Related Fields Courses</b>			
ENVS 101 & 101L	Physical Geology & Lab (ENVS 101L)	4	F
ENVS 102 & 102L	Historical Geology & Lab (ENVS 102L) <i>*Pre-Requisites: ENVS 100 or ENVS 101</i>	4	S
MATH 200	Intro to Statistics	3	B
<b>Choose to complete either Group A or Group B</b>			
<b>Group A. (8 Credits)</b>			
CHEM 121 & 121L	Basic Chemistry & Lab (CHEM 121L)	4	F
CHEM 122 & 122L	Introductory Organic/Biochemistry & Lab (CHEM 122L) <i>*Pre-Requisites: CHEM 121 or CHEM 231</i>	4	S
<b>Group B. (9 Credits)</b>			
CHEM 231 & 231L	General Chemistry I & Lab (CHEM 231L)	4	F
CHEM 232 & 232L	General Chemistry II & Lab (CHEM 232L) <i>*Pre-Requisites: CHEM 231</i>	5	S
<b>Choose one Physics course with its corresponding lab:</b>			
PHYS 100 & 100L OR PHYS 121 & 121L OR PHYS 141 & 141L	Our Physical Universe & Lab (PHYS 100L) OR Introduction to Astronomy & Lab (PHYS 121L) OR College Physics I & Lab (PHYS 141L)	4	Varies F F
<b>Student Teaching</b>			
ED 465	Secondary Student Teaching: Grade 5-12	12	B
ED 473	Teacher Licensure	0	B
<b>Degree &amp; Major Requirements</b>			
	LEP/MnTC requirements	45	
	Biology Education major	54-55	
	Education courses	29	
	Total credits required for this degree	109-112	
	Total credits required for graduation	120	

Courses in the shaded area can be taken prior to admission to the Teacher Preparation Program

Courses not in the shaded areas require admission to the Teacher Preparation Program

F = Fall S = Spring B = Both F & S Su = Summer fo = fall odd so = spring odd fe = fall even se = spring even  
 For example- fo = fall 2023; se = spring 2024

**You are responsible for keeping informed of any changes in requirements which may affect your academic career.**