

**Biology (Secondary) and Environmental Education (K-12) with Dual Teaching Certification**  
**(Only completed in conjunction with Biology Teaching Certification)**  
 (Department of Biological Sciences)

Major Requirements

<u>Major Courses</u>	<u>Credits</u>	<u>Semester Completed</u>
[BIOL 160] Molecular and Cellular Biology	4	
[BIOL 161] Animal Form and Function	3	
[BIOL 162] Plant Form and Function	3	
[BIOL 260] Genetics and Development	3	
[BIOL 262] Ecology and Adaptation	4	
<i>One of the following (Integrative Biology):</i>	3 or 4	
[BIOL 313] Developmental Biology (3)		
[BIOL 385] Physiology (4)		
[BIOL 386] Human Anatomy (4)		
[BIOL 387] Neuroscience (3)		
[BIOL 418] Introduction to Immunology (4)		
<i>One of the following (Cellular Biology):</i>	4	
[BIOL 382] Microbiology for Health Professions (4)		
[BIOL 412] Cell Biology (4)		
[BIOL 413] Molecular Biology (4)		
[CHEM 410] Biochemistry I (4)		
<i>One of the following (Plant Biology):</i>	3 or 4	
[BIOL 321] Mycology (4)		
[BIOL 325] Medicinal Botany (3)		
[BIOL 332] Plant Taxonomy (4)		
[BIOL 334] Plant Ecology (4)		
[BIOL 335] Plant Propagation (3)		
[CHEM 105] General Chemistry I	4	
[CHEM 106] General Chemistry II	4	
[CHEM 204] Introduction to Organic Chemistry	4	
[BIOL 495] Capstone: Natural Sciences	3	
<i>One of the following:</i>	3 - 7	
[MATH 108] Intuitive Calculus with Applications (3)		
[MATH 109] Calculus, Part I (4) & [MATH 110] Calculus, Part II (3)		
[MATH 111] Calculus I (4)		
<i>One of the following:</i>	3	
[PHIL 101] Problems in Philosophy (3)		
[PHIL 102] History of Philosophy (3)		
[PHYS 201] Introductory Physics I	4	
[STAT 269] Introductory Statistics	3	
ENGL xxx (ENGL 122 to ENGL 176)	3	
[EDSP 207] Introduction to Special Education	3	
[EDSP 307] Inclusion Practices	3	
[EDUC 201] Education and American Society	3	
[EDUC 203] Educational Psychology	3	

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<a href="#">[EDUC 210]/[TEP 210]</a> Sophomore Field Experience	0	
<a href="#">[EDUC 308]</a> Instruction and Assessment with English Language Learners	3	
<a href="#">[EDUC 331]</a> Instructional Design & Assessment for Secondary Ed.	3	
<a href="#">[TEP 310]</a> Junior Field Experience	0	
<a href="#">[TEP 410]</a> Secondary Pre-Student Teaching Experience	0	
<a href="#">[BIOL 271]</a> Ecological Field Techniques	2	
<a href="#">[BIOL 274]</a> Environmental Science	3	
<a href="#">[BIOL 315]</a> Environmental Ethics	3	
<a href="#">[BIOL 392]</a> Environmental Education Practicum	3	
<i>One of the following:</i>	4	
<a href="#">[BIOL 356]</a> Ornithology (4)		
<a href="#">[BIOL 358]</a> Herpetology (4)		
<a href="#">[ESS 201]</a> Earth and Space Science	3	
<b>Professional Semester:</b>		
<a href="#">[BIOL 407]</a> Secondary Science Curriculum & Instruction	2	
<a href="#">[PSYC 311]</a> Adolescent Development	3	
<a href="#">[EDUC 420]</a> Professional Issues in Education	2	
<a href="#">[TEP 435]</a> Student Teaching: Secondary	8	

Major requirements continued

General Education requirements on third page

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<u>Courses</u>	<u>Credits</u>	<u>Semester Completed</u>
First Year Seminar	3	
Oral Communications	3	
Created and Called for Community	3	
Mathematical Sciences ( <a href="#">[MATH 108]</a> , <a href="#">[MATH 109]</a> or <a href="#">[MATH 111]</a> )	3 or 4	<u>met by major</u>
Laboratory Science ( <a href="#">[BIOL 160]</a> , <a href="#">[BIOL 161]</a> , <a href="#">[BIOL 162]</a> , or <a href="#">[CHEM 105]</a> )	3 or 4	<u>met by major</u>
Science, Technology & the World	3	<u>waived</u>
<b>Two</b> of the following:	6	
Social Science (3 credits – <a href="#">[EDUC 203]</a> )		<u>met by major</u>
European History (3 credits)		
United States History (3 credits)		
Literature (ENGL 122 to ENGL 176)	3	<u>met by major</u>
Philosophy and Religion ( <a href="#">[PHIL 101]</a> or <a href="#">[PHIL 102]</a> )	3	<u>met by major</u>
Arts	3	
Language/Cross Cultural		
First Semester of Language	3	
Second Semester of Language	3	
Third Semester of Language or Cross Cultural	3	<u>reduction</u>
Non-Western Studies	2 or 3	<u>waived</u>
Bible	3	
Christian Beliefs ( <a href="#">[THEO 223]</a> required to waive Non-Western)	3	
Health and Physical Fitness		
Introduction to Wellness	2	<u>reduction</u>
Activity Course	1	
<b>One</b> of the following:	3	
Ethics (3 credits – <a href="#">[BIOL 315]</a> )		<u>met by major</u>
World Views (3 credits)		
Pluralism in Contemporary Society (3 credits)		
Writing Enriched Course		

SUMMARY OF DEGREE REQUIREMENTS:

General Education	28
Major Requirements	109-115
<b>Total</b>	<b>137-143</b>

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