

Biological Sciences 2014

Major: Biological Sciences - Environmental Science Option

Degree Type: B.A. or B.S.

Required Degree Credits to Graduate: 122

General Education Requirements

First Year Experience (F):

UNIV 189	Skills For Academic Success (Students transferring in 24 or more credits do not need to take UNIV 189.)	1
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Communication (C):

ENGL 110	College Composition I	3
ENGL 120	College Composition II	3
ENGL 324	Writing in the Sciences	3
COMM 110	Fundamentals of Public Speaking	3

Quantitative Reasoning (R):

STAT 330	Introductory Statistics	3
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Science & Technology (S):

The 10 credits required in the Science and Technology category will be fulfilled with requirements of the major.		10
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Humanities & Fine Arts (A): Select from current general education list	6
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Social & Behavioral Sciences (B): Select from current general education list	6
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Wellness (W): Select from current general education list	2
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Cultural Diversity (D): Select from current general education list

Global Perspectives (G): Select from current general education list

Total Credits	40
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College Requirements

Bachelor of Science (BS) Degree – An additional 6 credits in Humanities or Social Sciences *

Bachelor of Arts (BA) Degree – An additional 12 credits Humanities and Social Sciences* and proficiency at the second year level in a modern foreign language.

* Humanities and Social Sciences may be fulfilled by any course having the following prefix: ADHM, ANTH, ARCH, ART, CJ, CLAS, COMM, ECON, ENGL, FREN, GEOG, GERM, HDFS, HIST, LA, LANG, MUSC, PHIL, POLS, PSYC, RELS, SOC, SPAN, THEA, WGS, or any course from the approved list of general education courses in humanities and social sciences (general education categories A and B). These credits must come from outside the department of the student's major.

Major Requirements

Except for courses offered only as pass/fail grading, no course may be taken Pass/Fail.

General Education Requirements		40
Science and Mathematics College Requirements		6-12
Biological Sciences Core Requirements - Environmental Science Option		
BIOL 150 & 150L	General Biology I and General Biology I Laboratory	4
BIOL 151 & 151L	General Biology II and General Biology II Laboratory	4
BIOL 359	Evolution	3
BIOL 491	Seminar	2
BIOL 315 & 315L	Genetics and Genetics Laboratory	4
BIOL/ZOO 364	General Ecology	3
BIOL 480	Ecotoxicology	3
Select one of the following:		3-4
BOT 314	Plant Systematics	
BOT 372	Structure and Diversity of Plants and Fungi	
BOT 380	Plant Physiology	
BOT 431	Intermediate Genetics	
BOT 450	Range Plants	
BOT 460	Plant Ecology	
Electives: Select 12 credits from the following:		12
BOT 380	Plant Physiology	
BOT 431	Intermediate Genetics	
ZOO 370	Cell Biology	
ZOO 380	Vertebrate Histology	
ZOO 460	Animal Physiology	
ZOO 464	Endocrinology	
ZOO 482	Developmental Biology	
BOT 314	Plant Systematics	
BOT 372	Structure and Diversity of Plants and Fungi	
ZOO 280	Comparative Chordate Morphology	
ZOO 360	Animal Behavior	
ZOO 450	Invertebrate Zoology	
ZOO 452	Ichthyology	
ZOO 454	Herpetology	
ZOO 456	Ornithology	
ZOO 458	Mammalogy	
BIOL 481	Wetland Science	
BOT 450	Range Plants	
BOT 460	Plant Ecology	
ZOO 462	Physiological Ecology	
ZOO 475	Conservation Biology	
ZOO 476	Wildlife Ecology and Management	
ZOO 477	Wildlife and Fisheries Management Techniques	

Related Required Courses

Earth Sciences:

GEOL 105 & 105L	Physical Geology and Physical Geology Lab	4
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GEOL 106 & 106L	The Earth Through Time and The Earth Through Time Lab	4
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SOIL 217	Introduction to Meteorology & Climatology	3
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SOIL 410	Soils and Land Use	3
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Chemistry:

CHEM 121 & 121L	General Chemistry I and General Chemistry I Laboratory	4
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CHEM 122 & 122L	General Chemistry II and General Chemistry II Laboratory	4
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Select one from the following:		3-5
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CHEM 431 & 431L	Analytical Chemistry I and Analytical Chemistry I Laboratory
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GEOL 428	Geochemistry
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Select one of the following groups:		7-10
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Group One:

CHEM 240	Survey of Organic Chemistry
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CHEM 260	Elements of Biochemistry
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Group Two:

CHEM 341 & 341L	Organic Chemistry I and Organic Chemistry I Laboratory
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CHEM 342	Organic Chemistry II
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BIOC 460	Foundations of Biochemistry and Molecular Biology I
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Math:

MATH 146	Applied Calculus I	4
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MATH 147	Applied Calculus II	4
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Physics:

PHYS 211 & 211L	College Physics I and College Physics I Laboratory	4
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PHYS 212 & 212L	College Physics II and College Physics II Laboratory	4
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Total Credits

122-134

Program notes

- Students may not minor in biology with this major