

BACHELOR of SCIENCE in BIOLOGY
Environmental Biology Option

Revised 6/13 MDW

Concepts in Biology 1 (BIOL114) and *Concepts in Biology 2* (BIOL 115) should be taken during the freshman year; *Microbiology* (BIOL 242) and *Cell Biology* (BIOL 271) should be taken during the sophomore year.

<p>Biology Core Requirement (23 cr hrs) <input type="checkbox"/></p> <p>BIOL 114 Concepts in Biology 1 4 <input type="checkbox"/></p> <p>BIOL 115 Concepts in Biology 2 4 <input type="checkbox"/></p> <p>BIOL 242 Microbiology 4 <input type="checkbox"/></p> <p>BIOL 271 Cell Biology 4 <input type="checkbox"/></p> <p>BIOL 332 Genetics 3 <input type="checkbox"/></p> <p>BIOL 351 Ecology 3 <input type="checkbox"/></p> <p>BIOL 481 Senior Biology Seminar 1 <input type="checkbox"/></p>	<p>Enviro Sci and Geology Requirement (7 cr hrs) <input type="checkbox"/></p> <p>EGGS 100 Intro Environmental Science 3 <input type="checkbox"/></p> <p>EGGS 120 Physical Geology 4 <input type="checkbox"/></p> <hr/> <p>Physics Requirement (4 cr hrs) <input type="checkbox"/></p> <p>PHYS 111 Intro Physics 1 4 <input type="checkbox"/></p>
<p>Mathematics Requirement (6 cr hrs) <input type="checkbox"/></p> <p>MATH 141 Introduction Statistics 3 <input type="checkbox"/></p> <p>Choose one of the following</p> <p>MATH 240 Statistical Methods 3 <input type="checkbox"/></p> <p>MATH 342 Design and Analysis of Experiments 3 <input type="checkbox"/></p> <p>MATH 343 Applied Regression Analysis 3 <input type="checkbox"/></p> <p>MATH 446 Biostatistics 3 <input type="checkbox"/></p>	<p>Chemistry Requirement (11-12 cr hrs) <input type="checkbox"/></p> <p>CHEM 115 Chem for Sciences 1 4 <input type="checkbox"/></p> <p>CHEM 116 Chem for Sciences 2 4 <input type="checkbox"/></p> <p>Choose one of the following:</p> <p>CHEM 230 Fundamentals of Organic Chemistry OR 4 <input type="checkbox"/></p> <p>CHEM 321 Analytical Chemistry 1 3 <input type="checkbox"/></p>

Science & Environmental Studies Electives

Select 21 credits; 12 credits must be in Biology or Marine Science

Biology Elective Courses

BIOL 200 Dendrology	3	<input type="checkbox"/>
BIOL 211 Invertebrate Zoology	3	<input type="checkbox"/>
BIOL 212 Vertebrate Zoology	3	<input type="checkbox"/>
BIOL 222 Comp Biol Plants	3	<input type="checkbox"/>
BIOL 252 Field Zoology	3	<input type="checkbox"/>
BIOL 253 Freshwater Biology	3	<input type="checkbox"/>
BIOL 263 Field Botany	3	<input type="checkbox"/>
BIOL 350 Plant Pathology	3	<input type="checkbox"/>
BIOL 390 UG Research in Biol 1	3	<input type="checkbox"/>
BIOL 391 UG Research in Biol 2	3	<input type="checkbox"/>
BIOL 420 Global Change Biology	3	<input type="checkbox"/>
BIOL 430 Evolution	3	<input type="checkbox"/>
BIOL 450 Mycology	3	<input type="checkbox"/>
BIOL 451 Conservation Biology	3	<input type="checkbox"/>
BIOL 452 Limnology	3	<input type="checkbox"/>
BIOL 455 Environmental Microbiology	3	<input type="checkbox"/>
BIOL 457 Entomology	3	<input type="checkbox"/>
BIOL 459 Ornithology	3	<input type="checkbox"/>
BIOL 460 Population Biology	3	<input type="checkbox"/>
BIOL 461 Animal Behavior	3	<input type="checkbox"/>
BIOL 477 Plant Physiology	3	<input type="checkbox"/>
BIOL 480 Compar Animal Physiology	3	<input type="checkbox"/>
BIOL 489 Current Topics in Biology	3	<input type="checkbox"/>
BIOL 490 Internship Biol/AHS	3	<input type="checkbox"/>
BIOL 493 Honors Indep Study 1	3	<input type="checkbox"/>
BIOL 494 Honors Indep Study 2	3	<input type="checkbox"/>

Chemistry Elective Courses

CHEM 230 Fund Organic Chemistry* 3

CHEM 321 Analytic Chemistry 1* 3

*course may not count for both a requirement and an elective

Physics Elective Course

PHYS 112 Intro Physics 2 4

Marine Science Courses

MARSCI 221 Marine Invertebrates	3	<input type="checkbox"/>
MARSCI 241 Marine Biology	3	<input type="checkbox"/>
MARSCI 250 Wetlands Ecology	3	<input type="checkbox"/>
MARSCI 260 Marine Ecology	3	<input type="checkbox"/>
MARSCI 300 Behavior Marine Org	3	<input type="checkbox"/>
MARSCI 330 Tropical Invertebrates	3	<input type="checkbox"/>
MARSCI 334 Marine Embryology	3	<input type="checkbox"/>
MARSCI 342 Marine Botany	3	<input type="checkbox"/>
MARSCI 343 Ichthyology	3	<input type="checkbox"/>
MARSCI 344 Anat Marine Chordates	3	<input type="checkbox"/>
MARSCI 345 Marine Ornithology	3	<input type="checkbox"/>
MARSCI 394 Comp Phys Marine Org	3	<input type="checkbox"/>
MARSCI 431 Ecol Marine Plankton	3	<input type="checkbox"/>
MARSCI 432 Marine Evol Ecol	3	<input type="checkbox"/>
MARSCI 441 Biology of Mollusks	3	<input type="checkbox"/>
MARSCI 464 Biol Oceanography	3	<input type="checkbox"/>
MARSCI 470 Research Diver Meth	3	<input type="checkbox"/>
MARSCI 490 Aquaculture	3	<input type="checkbox"/>
MARSCI 491 Coral Reef Ecology	3	<input type="checkbox"/>
MARSCI 492 Marine Mammals	3	<input type="checkbox"/>
MARSCI 493 Behavioral Ecology	3	<input type="checkbox"/>

Environmental, Geographical, and Geological Sciences Elective Courses

EGGS 255 Meteorology	3	<input type="checkbox"/>
EGGS 259 Oceanography	3	<input type="checkbox"/>
EGGS 260 Earth Materials	4	<input type="checkbox"/>
EGGS 301 Water Resources Manag	3	<input type="checkbox"/>
EGGS 302 Land Resources Manag	3	<input type="checkbox"/>
EGGS 303 Soil Resources Manag	4	<input type="checkbox"/>
EGGS 304 Environmental Valuation	3	<input type="checkbox"/>
EGGS 305 Environ Risks Hazards	3	<input type="checkbox"/>
EGGS 320 Remote Sensing	3	<input type="checkbox"/>
EGGS 358 Environ Conservation	3	<input type="checkbox"/>
EGGS 360 Principles of GIS 1	3	<input type="checkbox"/>
EGGS 370 Surface Hydrology	3	<input type="checkbox"/>
EGGS 460 Aqueous Geochemistry	4	<input type="checkbox"/>

Restrictions on Courses

1. A maximum of 3 cr hrs of BIOL 490 may be applied as biology elective credit toward the degree.
2. A maximum of 6 cr hrs from BIOL 390, 391, 490, 493 and 494 may be applied as biology elective credit.
3. All Current Topics courses, undergraduate and honors research, and internships should have an environmental focus.

General Education Requirements

Two cultural diversity courses (6 cr hr) are required. Designate these with a + symbol.

One Course may be used to fulfill either the Communication OR Values, Ethics, and Responsible Decision-Making requirements and also be used to complete a Group A or a Group B requirement.

Communication (9 cr hrs) <input type="checkbox"/>				ENGLISH 201 Composition 2 can be substituted for Writing in Biology. Suggested communication electives include a foreign language course or COMMSTUD 103 Public Speaking.
ENG 101	English Composition I	3	<input type="checkbox"/>	
BIOL 290	Writing in Biology	3	<input type="checkbox"/>	
_____	_____	3	<input type="checkbox"/>	

Quantitative-Analytical Reasoning (3 cr hrs) Fulfilled by mathematics requirement for major.	Values, Ethics, ... (3 cr hrs) <input type="checkbox"/>
GROUP C. Natural Science and Mathematics (12 cr hrs) Fulfilled by biology, chemistry, physics, mathematics, and geology requirements for the major.	Choose one of the following:
	EGGS 105 Environmental Issues and Choices OR 3 <input type="checkbox"/>
	BIOL 250 Biodiversity and Conservation Biology 3 <input type="checkbox"/>

GROUP A. Humanities & Arts (12 cr hrs; 3 departments) <input type="checkbox"/>	GROUP B. Social Sciences (12 cr hrs; 3 departments) <input type="checkbox"/>
_____ <input type="checkbox"/>	_____ <input type="checkbox"/>
_____ <input type="checkbox"/>	_____ <input type="checkbox"/>
_____ <input type="checkbox"/>	_____ <input type="checkbox"/>
_____ <input type="checkbox"/>	_____ <input type="checkbox"/>

Fitness and Recreational Skills (2 cr hrs) <input type="checkbox"/>	<input type="checkbox"/>
_____ <input type="checkbox"/>	_____ <input type="checkbox"/>

Free Electives. List free elective courses here. Total number of cr hrs must be at least 120.			
_____ <input type="checkbox"/>	_____ <input type="checkbox"/>	_____ <input type="checkbox"/>	_____ <input type="checkbox"/>
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