

**BACHELOR of SCIENCE in BIOLOGY**  
 Ecology, Conservation, and Field Biology Option

Revised 10/21 ARH

*Concepts in Biology 1* (BIOLOGY114) and *Concepts in Biology 2* (BIOLOGY 115) should be taken during the freshman year; *Ecology* (BIOLOGY 351) and *Cell Biology* (BIOLOGY 271) should be taken during the sophomore year.

<p><b>Biology Core Requirement</b> (19 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 271 Cell Biology 4 <input type="checkbox"/></p> <p>BIOL 332 Genetics 3 <input type="checkbox"/></p> <p>*BIOL 351 Ecology 4 <input type="checkbox"/></p> <p>*Fall only course</p>	<p><b>Other Requirements</b> (22-23 cr hrs) <input type="checkbox"/></p> <p>Choose one of the following: <input type="checkbox"/></p> <p>BIOL 103 Biodiversity &amp; Conservation 3</p> <p>EGGS 100 Intro Environmental Sci 3</p> <p>PHYS 201 Intro Physics 1 4 <input type="checkbox"/></p> <p>EGGS 120 Physical Geology 4 <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><b>Mathematics Requirement</b> (6 cr hrs)</p> <p>MATH 141 Introduction Statistics 3 <input type="checkbox"/></p> <p>Choose one of the following: <input type="checkbox"/></p> <p>MATH 240 Statistical Methods 3</p> <p>MATH 342 Design and Analysis of Experiments 3</p> <p>MATH 343 Applied Regression Analysis 3</p> <p>MATH 446 Biostatistics 3</p>	<p>Choose one of the following: <input type="checkbox"/></p> <p>CHEM 230 Fund of Organic Chem 4</p> <p>CHEM 321 Analytical Chemistry 1 3</p> <p>EGGS 460 Aqueous Geochemistry 3</p> <p>BIOL 333 Molecular Biology and &amp; 334 Molecular Biology Lab 4</p>

## Science & Environmental Studies Electives

Select 24 credits; at least 15 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 242 Microbiology	4	<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 421 Ecosystem Management	3	<input type="checkbox"/>
BIOL 430 Evolution	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*	4	<input type="checkbox"/>
CHEM 321 Analytic Chemistry 1*	3	<input type="checkbox"/>

### Physics Elective Course

PHYS 112 Intro Physics 2	4	<input type="checkbox"/>
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### 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 & Geological Sci. Elective Courses

EGGS 150 Quant. Meth. in Earth Sci.	3	<input type="checkbox"/>
EGGS 242 Map Use and Analysis	3	<input type="checkbox"/>
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 330 Spec. Topics in Fld. Geol.	3	<input type="checkbox"/>
EGGS 358 Environ Conservation	3	<input type="checkbox"/>
EGGS 360 Principles of GIS 1	3	<input type="checkbox"/>
EGGS 365 Intro Paleontology	4	<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.

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

## General Education Requirements

<p><b>Goal 1: Communication*</b> (7 points; 3 departments)</p> <p><b>ENG 101 Foundations of Coll Writing 3</b></p> <p>_____</p> <p>_____</p> <p>_____</p>	<p><b>Goal 6: Social Sciences**</b> (5 points; 2 departments)</p> <p>_____</p> <p>_____</p> <p>_____</p> <p>_____</p>
<p><b>Goal 2: Information Literacy</b> ( 2 points; 1 department)</p> <p>_____</p> <p>_____</p> <p>_____</p>	<p><b>Goal 7: Arts and Humanities</b> (5 points; 2 departments)</p> <p>_____</p> <p>_____</p> <p>_____</p> <p>_____</p>
<p><b>Goal 3: Analytical and Quantitative Skills</b> (5 points; 2 departments)</p> <p><b>BIOL 114 Concepts in Biology 1</b></p> <p><b>CHEM 115 Chem for the Sciences 1</b></p> <p><b>MATH 141 Intro to Statistics 3</b></p> <p><b>PHYS 111 Intro Physics 1</b></p> <p>_____</p>	<p><b>Goal 8: Second Language</b> (2 points; 1 department)</p> <p>_____</p> <p>_____</p> <p>_____</p> <p>_____</p>
<p><b>Goal 4: Cultures and Diversity</b> (5 points; 2 departments)</p> <p>_____</p> <p>_____</p> <p>_____</p> <p>_____</p>	<p><b>Goal 9: Healthy Living</b> (2 points; 1 department)</p> <p>_____</p> <p>_____</p> <p>_____</p> <p>_____</p>
<p><b>Goal 5: Natural Sciences</b> (5 points; 2 departments)</p> <p><b>BIOL 114 Concepts in Biology 1 3</b></p> <p><b>CHEM 115 Chem for the Sciences 1 3</b></p> <p>_____</p> <p>_____</p> <p>_____</p>	<p><b>Goal 10: Citizenship</b> (2 points; 1 department)</p> <p>_____</p> <p>_____</p> <p>_____</p> <p>_____</p>

# Credit Counting Worksheet\*

Course	Name	Credits	Course	Name	Credits
<b>Credits from page 1 and 2</b>		_____			
<b>Below list all courses not listed on page 1 and 2</b>					
_____	_____	_____	_____	_____	_____
_____	_____	_____	_____	_____	_____
_____	_____	_____	_____	_____	_____
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_____	_____	_____	_____	_____	_____
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_____	_____	_____	_____	_____	_____
_____	_____	_____	_____	_____	_____
_____	_____	_____	_____	_____	_____
_____	_____	_____	_____	_____	_____
_____	_____	_____	_____	_____	_____
_____	_____	_____	_____	_____	_____

\*Sum total of all courses must add up to 120 cr hrs or more.