

BACHELOR OF SCIENCE in BIOLOGY

Revised 12/12 GPC

Concepts in Biology 1 (BIOL 114) 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. In addition to the specified courses listed on this page, the student selects 12 credit hours of approved elective courses in biology.

Chemistry and mathematics courses should be scheduled as early as possible in the program of study. *Basic Statistics* (PSYCH 160) may be substituted for *Introduction to Statistics* (MATH 141).

<p>Biology Core Requirements (27 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>Chemistry Requirement (16/20 cr hrs) <input type="checkbox"/></p> <p>CHEM 115 Chem for the Sciences 1 4 <input type="checkbox"/></p> <p>CHEM 116 Chem for the Sciences 2 4 <input type="checkbox"/></p> <p>CHEM 230 Fund of Org Chem 4 <input type="checkbox"/></p> <p>OR</p> <p>CHEM 231 Organic Chemistry 1* AND 4 <input type="checkbox"/></p> <p>CHEM 232 Organic Chemistry 2* 4 <input type="checkbox"/></p> <p>CHEM 341 Biochemistry 1 4 <input type="checkbox"/></p> <p>*Chem 231 and Chem 232 are recommended for students intending to go to graduate or professional school.</p>
<p>Physiology Requirement (Select BIOL 479 AND one lecture course from among BIOL 472, 474, 477, 478, and 480)</p> <p>BIOL 479 Integrated Physiology Lab 1 <input type="checkbox"/></p> <p>with one of the following:</p> <p>BIOL 472 Animal Cell Physiology 3 <input type="checkbox"/></p> <p>BIOL 474 Human Physiology 3 <input type="checkbox"/></p> <p>BIOL 477 Plant Physiology 3 <input type="checkbox"/></p> <p>BIOL 478 Microbial Physiology 3 <input type="checkbox"/></p> <p>BIOL 480 Comparative Animal Physiol 3 <input type="checkbox"/></p>	<p>Physics Requirement (8 cr hrs; select one pair) <input type="checkbox"/></p> <p>PHYS 111 Introductory Physics 1 4 <input type="checkbox"/></p> <p>PHYS 112 Introductory Physics 2 4 <input type="checkbox"/></p> <p>OR</p> <p>PHYS 211 General Physics 1 4 <input type="checkbox"/></p> <p>PHYS 212 General Physics 2 4 <input type="checkbox"/></p>
<p>Biology Elective Requirement</p> <p>Select 12 cr hrs of biology and/or marine science electives listed on p. 2, and list them below.</p> <p>_____ 3 <input type="checkbox"/></p> <p>_____ 3 <input type="checkbox"/></p> <p>_____ 3 <input type="checkbox"/></p> <p>_____ 3 <input type="checkbox"/></p>	<p>Mathematics Requirement (6 cr hrs; select one pair) <input type="checkbox"/></p> <p>MATH 123 Essentials of Calculus 3 <input type="checkbox"/></p> <p>MATH 141 Introduction to Statistics 3 <input type="checkbox"/></p> <p>OR</p> <p>MATH 125 Calculus 1 3 <input type="checkbox"/></p> <p>MATH 141 Introduction to Statistics 3 <input type="checkbox"/></p> <p>OR</p> <p>MATH 125 Calculus 1 3 <input type="checkbox"/></p> <p>MATH 126 Calculus 2 3 <input type="checkbox"/></p>

Biology Elective Courses		Marine Science Courses	
BIOL 200 Dendrology	3 <input type="checkbox"/>	MARSCI 221 Marine Invertebrates	3 <input type="checkbox"/>
BIOL 211 Invertebrate Zoology	3 <input type="checkbox"/>	MARSCI 241 Marine Biology	3 <input type="checkbox"/>
BIOL 212 Vertebrate Zoology	3 <input type="checkbox"/>	MARSCI 250 Wetlands Ecology	3 <input type="checkbox"/>
BIOL 222 Comp Biol Plants	3 <input type="checkbox"/>	MARSCI 260 Marine Ecology	3 <input type="checkbox"/>
BIOL 233 Human Genetics	3 <input type="checkbox"/>	MARSCI 300 Behavior Marine Org	3 <input type="checkbox"/>
BIOL 252 Field Zoology	3 <input type="checkbox"/>	MARSCI 330 Tropical Invertebrates	3 <input type="checkbox"/>
BIOL 253 Freshwater Biology	3 <input type="checkbox"/>	MARSCI 334 Marine Embryology	3 <input type="checkbox"/>
BIOL 263 Field Botany	3 <input type="checkbox"/>	MARSCI 342 Marine Botany	3 <input type="checkbox"/>
BIOL 333 Molecular Biology	3 <input type="checkbox"/>	MARSCI 343 Ichthyology	3 <input type="checkbox"/>
BIOL 334 Molecular Biology Lab	1 <input type="checkbox"/>	MARSCI 344 Anat Marine Chordates	3 <input type="checkbox"/>
BIOL 342 Medical Microbiology	3 <input type="checkbox"/>	MARSCI 345 Marine Ornithology	3 <input type="checkbox"/>
BIOL 343 Immunology	3 <input type="checkbox"/>	MARSCI 394 Comp Phys Marine Org	3 <input type="checkbox"/>
BIOL 350 Plant Pathology	3 <input type="checkbox"/>	MARSCI 431 Ecol Marine Plankton	3 <input type="checkbox"/>
BIOL 361 Comp Vert Anatomy	3 <input type="checkbox"/>	MARSCI 432 Marine Evol Ecol	3 <input type="checkbox"/>
BIOL 364 Vertebrate Histology	3 <input type="checkbox"/>	MARSCI 441 Biology of Mollusks	3 <input type="checkbox"/>
BIOL 390 UG Research in Biol 1	3 <input type="checkbox"/>	MARSCI 464 Biol Oceanography	3 <input type="checkbox"/>
BIOL 391 UG Research in Biol 2	3 <input type="checkbox"/>	MARSCI 470 Research Diver Meth	3 <input type="checkbox"/>
BIOL 411 Radiation Biology	3 <input type="checkbox"/>	MARSCI 490 Aquaculture	3 <input type="checkbox"/>
BIOL 420 Global Change Biology	3 <input type="checkbox"/>	MARSCI 491 Coral Reef Ecology	3 <input type="checkbox"/>
BIOL 430 Evolution	3 <input type="checkbox"/>	MARSCI 492 Marine Mammals	3 <input type="checkbox"/>
BIOL 431 Developmental Biology	3 <input type="checkbox"/>	MARSCI 493 Behavioral Ecology	3 <input type="checkbox"/>
BIOL 432 Microbial & Molec Genet	3 <input type="checkbox"/>		
BIOL 435 Bioinformatics	3 <input type="checkbox"/>		
BIOL 442 Virology	3 <input type="checkbox"/>	Restrictions on Courses	
BIOL 443 Advanced Immunology	3 <input type="checkbox"/>	1. A maximum of 3 cr hrs of BIOL	
BIOL 444 Tissue Culture	3 <input type="checkbox"/>	490 may be applied as biology	
BIOL 445 Pharm for Health Sciences	3 <input type="checkbox"/>	elective credit toward the degree.	
BIOL 450 Mycology	3 <input type="checkbox"/>		
BIOL 451 Conservation Biology	3 <input type="checkbox"/>	2. A maximum of 6 cr hrs from	
BIOL 452 Limnology	3 <input type="checkbox"/>	among BIOL 390, 391, 490, 493 and	
BIOL 455 Environmental Microbiology	3 <input type="checkbox"/>	494 may be applied as biology	
BIOL 457 Entomology	3 <input type="checkbox"/>	elective credit.	
BIOL 459 Ornithology	3 <input type="checkbox"/>		
BIOL 460 Population Biology	3 <input type="checkbox"/>	*Current Topics in Biology may be	
BIOL 461 Animal Behavior	3 <input type="checkbox"/>	repeated only once if the topic is	
BIOL 470 Medical Parasitology	3 <input type="checkbox"/>	different, giving a maximum of 6	
BIOL 476 Neurophysiology	3 <input type="checkbox"/>	credits.	
BIOL 489 Current Topics in Biol*	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"/>		

General Education Requirements

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

Communication (9 cr hrs)

ENGL 101 Foundations College English 3
 BIOL 290 Writing in Biology 3
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ENGLISH 201 Composition 2 can be substituted for Writing in Biology. Suggested communication electives include a foreign language course or COMMSTUD 103 Public Speaking.

Quantitative-Analytical Reasoning (3 cr hrs)

Fulfilled by mathematics requirement for major.

Values, Ethics, ... (3 cr hrs)

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GROUP C. Natural Science and Mathematics (12 cr hrs)

Fulfilled by biology, chemistry, physics, and mathematics requirements for the major.

GROUP A. Humanities & Arts

(12 cr hrs; 3 departments)

GROUP B. Social Sciences

(12 cr hrs; 3 departments)

Fitness and Recreational Skills (2 cr hrs)

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Free Electives. List free elective courses here. Total number of cr hrs must be at least 120.

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