

**BACHELOR OF ARTS in BIOLOGY**

Revised 3/19 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 13 credit hours of approved elective courses in biology and related sciences.

Chemistry and mathematics courses should be scheduled as early as possible in the program of study. *Applied Statistics for the Behavioral Sciences* (PSYCH 160) may be substituted for *Introduction to Statistics* (MATH 141) provided that a foundational math course is taken in the first year.

<p><b>Biology Core Requirements</b> (27 cr hrs)</p> <p>BIOL 114 Concepts in Biology 1           4          BIOL 115 Concepts in Biology 2       4          BIOL 242 Microbiology                   4          BIOL 271 Cell Biology                    4          BIOL 332 Genetics                        3          BIOL 351 Ecology                         4</p>	<p><b>Physical Sciences Requirement</b> (12 cr hrs)</p> <p>CHEM 115 Chem for the Sciences 1   4          CHEM 116 Chem for the Sciences 2   4</p> <p><b>AND EITHER</b>          CHEM 230 Fund Organic Chemistry   4  <b>OR</b>          PHYS 201 Introductory Physics 1     4</p>
<p><b>Physiology Requirement</b> (Select BIOL 479          AND one lecture course from among BIOL 472,          474, 477, 478, and 480)</p> <p>BIOL 479 Integrated Physiology Lab    1  <b>with</b> one of the following:          BIOL 472 Animal Cell Physiology       3          BIOL 474 Human Physiology            3          BIOL 477 Plant Physiology             3          BIOL 478 Microbial Physiology        3          BIOL 480 Comparative Animal Physiol  3</p>	<p><b>Mathematics Requirement</b> (3 cr hr)</p> <p>MATH 141 Introduction to Statistics    3</p>
<p><b>Biology and Other Sciences Electives</b> (12 cr hrs; 9 cr hrs from biology and/or marine science)          Select among biology, marine science, chemistry, physics, and mathematics electives listed on p. 2. List them below.</p> <p>_____</p> <p>_____</p> <p>_____</p>	

<b>Biology Elective Courses</b>		<b>Marine Science Courses</b>	
BIOL 200 Dendrology	3	MARSCI 221 Marine Invertebrates	3
BIOL 211 Invertebrate Zoology	3	MARSCI 241 Marine Biology	3
BIOL 212 Vertebrate Zoology	3	MARSCI 250 Wetlands Ecology	3
BIOL 222 Comp Biol Plants	3	MARSCI 260 Marine Ecology	3
BIOL 233 Human Genetics	3	MARSCI 300 Behavior Marine Org	3
BIOL 252 Field Zoology	3	MARSCI 330 Tropical Invertebrates	3
BIOL 253 Freshwater Biology	3	MARSCI 334 Marine Embryology	3
BIOL 263 Field Botany	3	MARSCI 342 Marine Botany	3
BIOL 333 Molecular Biology	3	MARSCI 343 Ichthyology	3
BIOL 334 Molecular Biology Lab	1	MARSCI 344 Anat Marine Chordates	3
BIOL 342 Medical Microbiology	3	MARSCI 345 Marine Ornithology	3
BIOL 343 Immunology	3	MARSCI 394 Comp Phys Marine Org	3
BIOL 350 Plant Pathology	3	MARSCI 431 Ecol Marine Plankton	3
BIOL 361 Comp Vert Anatomy	3	MARSCI 432 Marine Evol Ecol	3
BIOL 364 Vertebrate Histology	3	MARSCI 441 Biology of Mollusks	3
BIOL 390 UG Research in Biol 1	3	MARSCI 464 Biol Oceanography	3
BIOL 391 UG Research in Biol 2	3	MARSCI 470 Research Diver Meth	3
BIOL 411 Radiation Biology	3	MARSCI 490 Aquaculture	3
BIOL 420 Global Change Biology	3	MARSCI 491 Coral Reef Ecology	3
BIOL 430 Evolution	3	MARSCI 492 Marine Mammals	3
BIOL 431 Developmental Biology	3	MARSCI 493 Behavioral Ecology	3
BIOL 432 Microbial & Molec Genet	3		
BIOL 435 Bioinformatics	3		
BIOL 442 Virology	3	<b>Other Science Elective Courses</b>	
BIOL 443 Advanced Immunology	3	CHEM 230 Fund Organic Chemistry#	4
BIOL 444 Tissue Culture	3	CHEM 341 Biochemistry	4
BIOL 445 Pharm for Health Sciences	3	EGGS 100 Intro Environmental Science	3
BIOL 450 Mycology	3	EGGS 120 Physical Geology	4
BIOL 451 Conservation Biology	3	EGGS 259 Oceanography	3
BIOL 452 Limnology	3	MATH 123 Essentials of Calculus	3
BIOL 455 Environmental Microbiology	3	PHYS 111 Introductory Physics 1#	4
BIOL 457 Entomology	3	PHYS 112 Introductory Physics 2	4
BIOL 459 Ornithology	3	#applicable only if not used for Physical Sciences Requirement	
BIOL 460 Population Biology	3		
BIOL 461 Animal Behavior	3		
BIOL 470 Medical Parasitology	3		
BIOL 476 Neurophysiology	3		
BIOL 481 Senior Biology Seminar	3	<b>Restrictions on Courses</b>	
BIOL 489 Current Topics in Biol*	3	1. A maximum of 3 cr hrs of BIOL 490 may be applied as biology elective credit toward the degree.	
BIOL 490 Internship Biol/AHS	3	2. A maximum of 6 cr hrs from among BIOL 390, 391, 490, 493 and 494 may be applied as biology elective credit.	
BIOL 493 Honors Indep Study 1	3	*Current Topics in Biology may be repeated only once if the topic is different, giving a maximum of 6 credits.	
BIOL 494 Honors Indep Study 2	3		

## General Education Requirements

<p><b>Goal 1: Communication</b> (7 points; 3 departments)</p> <p><b>ENG 101 Foundations of Coll Writ 3</b></p> <p><b>BIOL 290 Writing in Biology* 2</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>_____</p>
<p><b>Goal 2: Information Literacy</b> ( 2 points; 1 department)</p> <p><b>BIOL 290 Writing in Biology* 1</b></p> <p>_____</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>_____</p>
<p><b>Goal 3: Analytical and Quantitative Skills</b> (5 points; 2 departments)</p> <p><b>CHEM 115 Chem for the Sci 1</b></p> <p><b>BIOL 114 Concepts in Biology 1</b></p> <p><b>MATH 141 Intro Stats 3</b></p>	<p><b>Goal 8: Second Language</b> (2 points; 1 department)</p> <p>_____</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>_____</p>	<p><b>Goal 9: Healthy Living</b> (2 points; 1 department)</p> <p>_____</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 Sci 1 3</b></p> <p>_____</p> <p>_____</p>	<p><b>Goal 10: Citizenship</b> (2 points; 1 department)</p> <p>_____</p> <p>_____</p> <p>_____</p> <p>_____</p>

\* recommended

# Credit Counting Worksheet

Course	Name	Credits	Course	Name	Credits
Credits from page 1 _____					
Below list all courses not listed on page 1					
_____	_____	____	_____	_____	____
_____	_____	____	_____	_____	____
_____	_____	____	_____	_____	____
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_____	_____	____	_____	_____	____
_____	_____	____	_____	_____	____
_____	_____	____	_____	_____	____

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