

# BACHELOR OF ARTS in BIOLOGY NATURAL HISTORY OPTION

Revised 10/21 ARH

*Concepts in Biology I* (BIOLOGY 114) and *Concepts in Biology II* (BIOLOGY 115) should be taken during the freshman year. *Microbiology* (BIOLOGY 242) should be taken during the sophomore year.

*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 Requirement</b> (22-23 hrs)</p> <p>BIOLOGY 114 Concepts in Biology I 4                  BIOLOGY 115 Concepts in Biology II 4                  BIOLOGY 242 Microbiology 4                  BIOLOGY 233 Human Genetics 3                  *BIOLOGY 351 Ecology 4</p> <p>BIOLOGY 430 Evolution <u>OR</u> 3                  EGGS 365 Intro. to Paleontology 4</p> <p>*Fall only course</p>	<p><b>Geological Science Requirement</b> (8 hrs)</p> <p>EGGS 120 Physical Geology 4                  EGGS 130 Historical Geology 4</p> <p><b>Mathematics Requirement</b> (3 hrs)                  MATH141 Introduction to Statistics 3</p> <p><b>Anthropology Requirement</b> (3 hrs)                  ANTHRO 220 Human Origins 3</p>
<p><b>Organismal and Field Course Requirement</b> (9 hrs)</p> <p>Select three courses among biology and marine science organismal and field courses on page 2<sup>1,2,4</sup>. List below.</p> <p>_____ 3                  _____ 3                  _____ 3</p>	<p><b>Biology and Other Science Electives</b> (6 hrs)</p> <p>Select among biology, marine science, geology, and chemistry courses on page 2<sup>1,2,3,4</sup>. List below.</p> <p>_____ 3                  _____ 3</p>

**Restrictions Upon the Application of Electives:**

<sup>1</sup>Research and Internship courses may be applied to the Organismal and Field Course requirement if the topic or placement is appropriate and is approved by your advisor. Otherwise, research and internship courses will count as a Biology and Other Science electives.

<sup>2</sup>Restrictions on Non-Classroom Courses: 1. A maximum of 3 credit hours of BIOL 490 may be applied as major elective credit toward the degree. 2. A maximum of 6 credit hours from among BIOLOGY 390, 391, 490, 493 and 494 may be applied as major elective credit toward the degree.

<sup>3</sup>*Introduction to Paleontology* (EGGS 365) may be used as a major elective if *Evolution* (BIOLOGY 430) is used to satisfy the core requirement.

<sup>4</sup>Appropriate transfer courses may be counted as Organismal and Field Courses or as Biology and Other Science Electives upon approval of your advisor.

**Organismal and Field Courses.** Any of the following Biology (prefix BIOLOGY) courses may be used to satisfy Organismal and Field Course Requirements. Once Organismal and Field Course Requirements are met, additional courses taken from this list will count as Biology and Other Science Electives.

200	Dendrology	3
211	Invertebrate Zoology	3
212	Vertebrate Zoology	3
213	Integrative Vertebrate Zoology	3
222	Comparative Biology of Plants	3
252	Field Zoology	3
253	Fresh Water Biology	3
263	Field Botany	3
361	Comparative Vertebrate Anatomy	3
390	Research in Biology <sup>1,2</sup>	3
452	Limnology	3
455	Environmental Microbiology	3
457	Entomology	3
459	Ornithology	3
461	Animal Behavior	3
490	Internship in Biology <sup>1,2</sup>	3
493	Honors Independent Study <sup>1,2</sup>	3

**Biology Elective Courses.** Any of the following Biology (prefix BIOLOGY) courses may be used to satisfy Biology and Other Science Elective requirements, but no more than 2 classes may be taken at the 100 level.

103	Biodiversity and Conservation	3
271	Cell Biology	4
332	Genetics	3
333	Molecular Biology	3
334	Molecular Biology Laboratory	1
342	Medical Microbiology	3
343	Immunology	3
350	Plant Pathology	3
363	Vertebrate Histology	3
391	Research in Biology 2 <sup>2</sup>	3
411	Radiation Biology	3
420	Global Change Biology	3
421	Ecosystems Management	3
430	Evolution <sup>3</sup>	3
431	Developmental Biology	3
432	Microbial and Molecular Genetics	3
435	Bioinformatics	3
442	Virology	3
445	Pharmacology	3
451	Conservation Biology	3
460	Population Biology	3
470	Medical Parasitology	3
472	Animal Cell Physiology	3
473	Cancer Biology	3
474	Human Physiology	3
476	Neurophysiology	3
477	Plant Physiology	3

**Marine Science Courses.** Any of the following Marine Science (prefix MARSCI) courses may be used to satisfy Organismal and Field Course Requirements. Once Organismal and Field Course Requirements are met, additional courses taken from this list will count as Biology and Other Science Electives.

221	Marine Invertebrates	3
241	Marine Biology	3
250	Wetland Ecology	3
260	Marine Ecology	3
298	Physiology Marine Invert.	3
300	Behavior Marine Organisms	3
320	Marine Microbiology	3
330	Tropical Invertebrates	3
342	Marine Botany	3
343	Marine Ichthyology	3
345	Marine Ornithology	3
394	Comp Phys Marine	3
431	Ecology of Marine Plankton	3
432	Marine Evolutionary	3
441	Biology of Molluscs	3
464	Biological Oceanography	3
470	Research Diver Methods	3
490	Marine Aquaculture	3
491	Coral Reef Ecology	3
492	Marine Mammals	3
493	Behavioral Ecology	3

**Other Science Elective Courses.** Any of the following may be used to satisfy Biology and Other Science Elective requirements, but no more than 2 classes may be taken at the 100 level.

EGGS 100	Intro. to Environ. Science	3
EGGS 103	Dinosaurs	3
EGGS 106	The Planets	3
EGGS 150	Quant. Meth. in Earth Sci.	3
EGGS 242	Map Use and Analysis	3
EGGS 255	Meteorology	3
EGGS 259	Oceanography	3
EGGS 260	Earth Materials	4
EGGS 264	Applied Cartography	4
EGGS 265	Geomorphology	4
EGGS 330	Special Topics in Fld. Geol.	3
EGGS 360	Principles of GIS 1	3
EGGS 365	Intro. to Paleontology <sup>3</sup>	4
CHEM 101	Introduction to Chemistry	3
CHEM 115	Chem. for the Sciences I	4
CHEM 116	Chem. for the Sciences II	4

(Biology Elective Courses continued)

479	Integrated Phys. Laboratory	1
480	Comparative Animal Phys.	3
489	Current Topics in Biology	3
494	Honors Ind. Study 2 <sup>2</sup>	3

And any other new Biology or Marine Science Course designed for majors as they are added.

**NOTES<sup>1,2,3</sup> As explained on previous page.**

# General Education Courses for the Natural History Option

(Required courses which meet goals are in italics)  
 (Suggested courses meeting goals are listed but not italicized)  
 (Blanks are for other elected courses which meet goals)

**GOAL 5: NATURAL SCIENCES**  
 (5 points: 2 departments - SATISFIED BY MAJOR)

<i>BIOLOGY</i>	114	<i>Concepts in Biology</i>	1	3
ANTHRO	220	Human Origins	2	2

**GOAL 1: COMMUNICATION**  
 (7 points: 3 departments)

<i>ENGLISH</i>	101	<i>Foundations of College Writing</i>	3	
BIOLOGY	290	Writing in Biology	2	
ARTSTUDIO	111	Introductory Drawing	1	
ARTSTUDIO	210	Life Drawing	1	
ARTSTUDIO	281	Introductory Photography	1	
ARTSTUDIO	291	Introductory Digital Art	1	
COMMSTUD	102	Public Speaking	3	
INTSTUDY	231	Technical Writing	2	
POLISCI	101	Elements of Political Sciences	1	
_____	_____	_____	_____	_____
_____	_____	_____	_____	_____

**GOAL 6: SOCIAL SCIENCES**  
 (5 points: 2 departments)

ANTHRO	101	Intro. To Anthropology	1	
ANTHRO	200	Prin. Cultural Anthropology	1	
ANTHRO	210	Intro. Prehistoric Archaeology	1	
EGGS	102	World Cultural Geography	1	
EGGS	104	World Regional Geography	2	
EGGS	105	Environ. Issues and Choices	1	
POLISCI	101	Elements of Political Sciences	2	
_____	_____	_____	_____	_____
_____	_____	_____	_____	_____
_____	_____	_____	_____	_____
_____	_____	_____	_____	_____

(2 points: 1 department)

BIOLOGY	290	Writing in Biology	1	
EGGS	105	Environ. Issues and Choices	1	
INTSTUDY	231	Technical Writing	1	
_____	_____	_____	_____	_____

**GOAL 7: ARTS AND HUMANITIES**  
 (5 points: 2 departments)

ARTHISTRY	101	Introduction to Art History	1	
ARTSTUDIO	111	Introductory Drawing	2	
ARTSTUDIO	210	Life Drawing	2	
ARTSTUDIO	281	Introductory Photography	2	
ARTSTUDIO	291	Introductory Digital Art	2	
PHIL	111	Introduction to Philosophy	3	
THEATER	102	Introduction to Theater	3	
_____	_____	_____	_____	_____
_____	_____	_____	_____	_____
_____	_____	_____	_____	_____

**GOAL 3: ANALYTICAL AND QUANTITATIVE SKILLS**  
 (5 points: 2 departments)

<i>BIOLOGY</i>	114	<i>Concepts in Biology</i>	1	
<i>MATH</i>	141	<i>Introduction to Statistics</i>	3	
EGGS	101	Intro. To Physical Geography	1	
EGGS	150	Quant. Meth. in Earth Sci.	3	
_____	_____	_____	_____	_____

**GOAL 8: SECOND LANGUAGE**  
 (2 points: 1 department - SATISFIED BY MAJOR)

<i>language</i>	102	<i>foreign language</i>	2	
_____	_____	_____	_____	_____

**GOAL 4: CULTURES AND DIVERSITY**  
 (5 points: 2 departments)

<i>language</i>	102	<i>foreign language</i>	1	
<i>ANTHRO</i>	220	<i>Human Origins</i>	1	
ANTHRO	101	Intro. To Anthropology	1	
ANTHRO	200	Prin. Cultural Anthropology	1	
ANTHRO	210	Intro. Prehistoric Archaeology	1	
ARTHISTRY	101	Introduction to Art History	2	
EGGS	102	World Cultural Geography	2	
EGGS	104	World Regional Geography	1	
POLISCI	120	U. S. Government	1	
SOC	215	Racial and Ethnic Minorities	3	
_____	_____	_____	_____	_____
_____	_____	_____	_____	_____
_____	_____	_____	_____	_____
_____	_____	_____	_____	_____

**GOAL 9: HEALTHY LIVING**  
 (2 points: 1 department)

EXERSCI	250	Lifeguarding	2	
_____	_____	_____	_____	_____
_____	_____	_____	_____	_____

**GOAL 10: CITIZENSHIP**  
 (2 points: 1 department)

EXERSCI	250	Lifeguarding	1	
POLISCI	120	U. S. Government	2	
_____	_____	_____	_____	_____
_____	_____	_____	_____	_____