

Biology (B.A.) - Natural History Option

Administered by Biological and Allied Health Sciences
Effective Fall, 2017

As per PRP3604: All students earning a first baccalaureate degree will take at least 30 of their last 45 credits at Bloomsburg University, no more credits are required than the 30 credits. All first baccalaureate students will take at least 50% of credits required for the Major from a PASSHE university. Bloomsburg University may require up to a maximum of 50% of the Major credits. Program exceptions to the policy are to be approved by the Office of the Chancellor.

The option provides a biology major the opportunity to specialize in natural history biology while obtaining a general background in biology.

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).

Biology Core Requirements (22-23 hours):

BIOLOGY.114 Concepts in Biology I

BIOLOGY.115 Concepts in Biology II

BIOLOGY.233 Human Genetics

BIOLOGY.242 Microbiology

BIOLOGY.351 Ecology

BIOLOGY.430 Evolution or EGGS.365 Intro to Paleontology

Geological Science Requirement (8 hours):

EGGS.120 Physical Geology

EGGS.130 Historical Geology

Mathematics Requirement (3 hours):

MATH.141 Introduction to Statistics

Anthropology Requirement (3 hours):

ANTHRO.220 Human Origins

Organismal and Field Course Requirement (12 Hours):

Select four courses among biology and marine science organismal and field courses from the lists below.

Biology and Other Science Electives (10 hours)

Select among biology, marine science, geology and chemistry courses from the lists below. No more than two classes may be taken at the 100 level.

- 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.

- Restrictions on Non-Classroom Courses: 1. A maximum of 3 credit hours of BIOLOGY.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.
- *Introduction to Paleontology* (EGGS 365) may be used as a major elective if *Evolution* (BIOLOGY.430) is used to satisfy the core requirement.
- 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:	Marine Science Courses:
BIOLOGY.200 Dendrology	MARSCI.221 Marine Invertebrates
BIOLOGY.211 Invertebrate Zoology	MARSCI.241 Marine Biology
BIOLOGY.212 Vertebrate Zoology	MARSCI.250 Wetland Ecology
BIOLOGY.213 Integrative Vertebrate Zoology	MARSCI.260 Marine Ecology
BIOLOGY.222 Comparative Biology of Plants	MARSCI.298 Physiology of Marine Invertebrates
BIOLOGY.252 Field Zoology	MARSCI.300 Behavior of Marine Organisms
BIOLOGY.253 Freshwater Biology	MARSCI.320 Marine Microbiology
BIOLOGY.263 Field Botany	MARSCI.330 Tropical Invertebrates
BIOLOGY.361 Comparative Vertebrate Anatomy	MARSCI.342 Marine Botany
BIOLOGY.390 Undergrad Research in Biology 1	MARSCI.343 Marine Ichthyology
BIOLOGY.452 Limnology	MARSCI.345 Marine Ornithology
BIOLOGY.455 Environmental Microbiology	MARSCI.394 Comp Physiology of Marine Org
BIOLOGY.457 Entomology	MARSCI.431 Ecology of Marine Plankton
BIOLOGY.459 Ornithology	MARSCI.432 Marine Evolutionary Ecology
BIOLOGY.461 Animal Behavior	MARSCI.441 Biology of Molluscs
BIOLOGY.490 Internship in Biology	MARSCI.464 Biological Oceanography
BIOLOGY.493 Honors Independent Study 1	MARSCI.470 Research Diver Methods
	MARSCI.490 Marine Aquaculture
Biology Elective Courses:	MARSCI.491 Coral Reef Ecology
BIOLOGY.103 Biodiversity and Conservation	MARSCI.492 Marine Mammals
BIOLOGY.271 Cell Biology	MARSCI.493 Behavioral Ecology
BIOLOGY.332 Genetics	
BIOLOGY.333 Molecular Biology	Other Science Elective Courses:
BIOLOGY.334 Molecular Biology Lab	EGGS 100 Intro. to Environ. Science
BIOLOGY.342 Medical Microbiology	EGGS 103 Dinosaurs
BIOLOGY.343 Immunology	EGGS 106 The Planets
BIOLOGY.350 Plant Pathology	EGGS 150 Quant. Meth. in Earth Sci.
BIOLOGY.363 Vertebrate Histology	EGGS 242 Map Use and Analysis
BIOLOGY.391 Research in Biology 2	EGGS 255 Meteorology

BIOLOGY.411 Radiation Biology	EGGS.259 Oceanography
BIOLOGY.420 Global Change Biology	EGGS.260 Earth Materials
BIOLOGY.421 Ecosystems Management	EGGS 264 Applied Cartography
BIOLOGY.431 Developmental Biology	EGGS.265 Geomorphology
BIOLOGY.432 Microbial and Molecular Genetics	EGGS 330 Special Topics in Fld. Geol.
BIOLOGY.435 Bioinformatics	EGGS 360 Principles of GIS 1
BIOLOGY.442 Virology	EGGS.365 Intro to Paleontology
BIOLOGY.445 Pharmacology	CHEM.101 Introductory Chemistry
BIOLOGY.451 Conservation Biology	CHEM.115 Chemistry for the Sciences I
BIOLOGY.460 Population Biology	CHEM.116 Chemistry for the Sciences II
BIOLOGY.470 Medical Parasitology	
BIOLOGY.472 Animal Cell Physiology	
BIOLOGY.473 Cancer Biology	
BIOLOGY.474 Human Physiology	
BIOLOGY.476 Neurophysiology	
BIOLOGY.477 Plant Physiology	
BIOLOGY.479 Integrated Phys. Laboratory	
BIOLOGY.480 Comparative Animal Physiology	
BIOLOGY. 489 Current Topics in Biology	
BIOLOGY.494 Honors Independent Study 2	