3+2 BACHELOR OF ARTS / MASTER OF SCIENCE in BIOLOGY: Natural History Option and Thesis Track

Department of Biological and Allied Health Sciences, College of Science and Technology
Effective Fall 2017

At Bloomsburg University qualified undergraduate students may participate in an Accelerated Bachelor's to Master's degree program or an Early/Dual Admission program to a professional Master's degree program.
The Accelerated Program permits qualified students with junior standing to take graduate coursework in order to get an early start on the Master's program. The total number of credits required for both the undergraduate and graduate degrees would be reduced by the number of graduate credits used to satisfy requirements for the undergraduate degree. For example, completing both an undergraduate degree program requiring 120 credits and a graduate degree program requiring 30 credits could be accomplished with a combined total of 138 credits. An example would be a Biology undergraduate interested in a Master's program in Biology (M.S.).
The Early/Dual Admission Program permits qualified undergraduate students to enter into a graduate program without first earning the Bachelor's degree with the intent of earning both Bachelor's and Master's degrees upon successful completion of the combined programs. Examples would include but not be limited to the Business Administration (M.B.A.) and Instructional Technology (M.S.) programs.

Concepts in Biology 1 (BIOLOGY.114) and Concepts in Biology 2 (BIOLOGY.115) should be taken during the freshman year; Microbiology (BIOLOGY.242) should be taken during the sophomore year. Students must complete ≥90 credit hours and maintain a ≥3.0 GPA in order to enroll in graduate courses in their 4th year. In addition to the specified courses listed on this page, the student selects 21 credit hours of approved graduate elective courses in biology and marine science.
Applied Statistics for the Behavioral Sciences (PSYCH.160) may be substituted for Introduction to Statistics (MATH.141). Required foreign language course counts towards fulfilling the Second Language and the Cultures and Diversity general.

Biology Core Requirements (28-29 credits):

BIOLOGY.114 Concepts in Biology I
BIOLOGY.115 Concepts in Biology II
BIOLOGY.242 Microbiology
BIOLOGY.233 Human Genetics
BIOLOGY.351 Ecology
BIOLOGY.430 Evolution OR EGGS.365 Paleontology
BIOLOGY 593 Master of Science Thesis

Geological Science Requirement (8 credits)

EGGS.120 Physical Geology
EGGS.130 Historical Geology

Mathematics Requirement (6 credits)

MATH.141 Introduction to Statistics
MATH 546 Biostatistics

Anthropology Requirement (3 credits)

ANTHRO.220 Human Origins

Organismal Environmental and Field Course Requirement (12 credits)

Select four undergraduate courses from the organismal Environmental and field courses below. BIOLOGY, GEOLOGY AND GEOGRAPHY, MARINE SCIENCE; Any of the following undergraduate Biology, EGGS, or Marine Science courses listed below may be used to satisfy Organismal, Environmental and Field Course Requirement.

BIOLOGY.200 Dendrology
BIOLOGY.211 Invertebrate Zoology
BIOLOGY.212 Vertebrate Zoology
BIOLOGY.213 Integrative Vertebrate Zoology
BIOLOGY.222 Comparative Biology of Plants
BIOLOGY.252 Field Zoology
BIOLOGY.253 Fresh Water Biology
BIOLOGY.263 Field Botany
BIOLOGY.361 Comp Vertebrate Anatomy
BIOLOGY.490 Internship in Biology
EGGS.100 Intro to Environmental Science
EGGS.103 Dinosaurs
EGGS.106 The Planets
EGGS.150 Quant Meth in Earth Science
EGGS.242 Map Use and Analysis
EGGS.255 Meteorology
EGGS.259 Oceanography
EGGS.260 Earth Materials
EGGS.264 Applied Cartography
EGGS.265 Geomorphology
EGGS.330 Special Topics in Field Geol
EGGS.360 Principles of GIS 1
MARSCI.221 Marine Invertebrates
MARSCI.241 Marine Biology
MARSCI.250 Wetland Ecology
MARSCI.260 Marine Ecology
MARSCI.298 Physiology Marine Invert
MARSCI.300 Behavior Marine Organisms
MARSCI.320 Marine Microbiology
MARSCI.330 Tropical Invertebrates
MARSCI.342 Marine Botany
MARSCI.343 Marine Ichthyology
MARSCI.345 Marine Ornithology

Biology/Marine Science Elective Requirement (21 credits)

(21 cr hrs of biology and/or marine science graduate electives selected from the lists below. A total of 21 credits, which includes BIOLOGY.593 Master of Science Thesis and MATH.546 Biostatistics, must be taken at the 500 level.)

BIOLOGY.455 Environmental Microbiology
BIOLOGY.457 Entomology
BIOLOGY.472 Animal Cell Physiology
BIOLOGY.474 Human Physiology
BIOLOGY.477 Plant Physiology
BIOLOGY.520 Global Change Biology
BIOLOGY.521 Ecosystem Management
BIOLOGY.530 Evolution
BIOLOGY.531 Developmental Biology
BIOLOGY.532 Microbial & Molecular Genetics
BIOLOGY.535 Bioinformatics
BIOLOGY.542 Virology
BIOLOGY.551 Conservation Biology
BIOLOGY.552 Limnology
BIOLOGY.559 Ornithology
BIOLOGY.560 Population Biology
BIOLOGY.561 Animal Behavior
BIOLOGY.570 Medical Parasitology
BIOLOGY.571 Endocrinology
BIOLOGY.573 Cancer Biology
BIOLOGY.576 Neurophysiology
BIOLOGY.580 Comparative Animal Physiology
BIOLOGY.589 Current Topics in Biology
HLTHSCI.545 Pharmacology
MARSCI.431 Ecology Marin Plankton
MARSCI.432 Marine Evolutionary Ecology
MARSCI.441 Biology of Molluscs
MARSCI.464 Biological Oceanography
MARSCI.470 Research Diver Methods
MARSCI.471 SEM: Marine Applications
MARSCI.490 Marine Aquaculture
MARSCI.491 Coral Reef Ecology
MARSCI.492 Marine Mammals
MARSCI.500 Problems in Marine Science
MARSCI.533 Adv. Methods in Coastal Ecol.
MARSCI.540 Environ. Science Education
MARSCI.551 Coast Environ. Oceanography
MARSCI.570 Research Cruise
MARSCI.593 Behavioral Ecology

General Education Requirements

Goal 1	7 points: 3 departments	Goal 6	5 points: 2 departments
Goal 2	2 points: 1 departments	Goal 7	5 points: 2 departments
Goal 3	5 points: 2 departments	Goal 8	2 points: 1 departments
Goal 4	5 points: 2 departments	Goal 9	2 points: 1 departments
Goal 5	5 points: 2 departments	Goal 10	2 points: 1 departments

***Sum total of all courses must add up to 138 Credit Hours or more.**