Bachelor of Science (BS)  
Degree Code 205*  
Concentration Code 205A

ECOLOGY, EVOLUTION, & ENVIRONMENTAL  
BIOLOGY CONCENTRATION

I. GENERAL EDUCATION CURRICULUM ...................................................................................................................................................................... 44
Chemistry 1101-1110 and 1102-1120 fulfill the Science Inquiry Perspective. Math 1110 fulfills the Quantitative Literacy requirement.

II. BIOLOGY MAJOR REQUIREMENTS (not including 12 s.h. counted in Area I, above) ......................................................................................................................................................................................... 66
2.0 major GPA is required for graduation. Major GPA calculation will include all courses taken in the major department, plus any other courses under II. Minimum of 18 semester hours of courses taken to fulfill major requirements must be courses offered by Appalachian.

A. Biology Core Requirements: 8 semester hours (must be completed before taking any other biology courses)
BIO 1801 (4) Biological Concepts I (Co: CHE 1101)  
AND
BIO 1802 (4) Biological Concepts II (Pre: 1801 w/grade "C")

B. Additional Required Biology Courses: 13 semester hours
BIO 2400 (3) Genetics (Pre: BIO 1801, CHE 1102, MAT 1025)  
OR
BIO 2700 (3) Human Gen (Pre: BIO 1802, CHE 1102, MAT 1025)
AND
and

one of the following Senior Capstones:  (Pre: Senior Standing; WID)
BIO 4501 (3) Independent Research [CAP]
BIO 4910 (3) Capstone Internship in Biology [CAP]

C. Ecology, Evolution, Environmental Concentration: 38 hours
Courses may only meet one requirement. If a course is chosen in one area, it may not be used in another.

1. Cellular/Subcellular or Anatomy & Physiology: Choose one course (3-4 s.h.) from the following
BIO 2400 (3) Genetics (Pre: BIO 1801, CHE 1102, MAT 1025)
BIO 2600 (3) Cell Biology (Pre: CHE 1102)
BIO 2700 (3) Human Gen (Pre: BIO 1802, CHE 1102, MAT 1025)
BIO 3308 (4) Microbiology (Pre: CHE 1102/1120)
BIO 3314 (4) Comparative Vertebrate Zoo [WID] (Pre:ENG2001)
BIO 4555 (4) Plant Physiology (Pre: CHE 1102/1120)
BIO 4564 (4) Microscopy
BIO 4569 (4) Invertebrate Zoology

2. Evolution or Ecology or Environmental: Choose two lab courses (8 s.h.) from the following
BIO 2000 (4) Introduction to Botany
BIO 4571 (4) Plant/Insect Interactions in Terrestrial Ecosystems
BIO 2001 (4) Introduction to Zoology

3. Biodiversity: Choose two courses (6-8 s.h.) from the following
BIO 2000 (4) Introduction to Botany
BIO 3304 (3) Systematic Botany (Pre: BIO 2000)
BIO 4551 (3) Ornithology
BIO 4556 (4) Mycology
BIO 4558 (3) Taxonomy of the Fleshy Fungi
BIO 4560 (3) Herpetology
BIO 4570 (4) Parasitology

4. Other Sciences: (18-21 s.h.) Courses from BIO, CHE, PHY, GLY or courses listed below may be chosen to bring total in AREA II.C. to 38 s.h.
ANT 2230 (3) Biological Anthropology
ANT 3200 (3) Zoarcheology (Pre: ANT 2221)
GHY 2310 (3) Map Interpret. & Map Making
GHY 3110 (3) Vegetation, Soils, & Landforms (Pre: GHY 1010)
GHY 4820 (3) Geographical Hydrology (Pre: GHY 1010, 3100, 3110)

D. Required Cognate Courses: 19 semester hours

Chemistry
CHE 1101/1110 (4) Intro. Chemistry I & lab
CHE 1102/1120 (4) Intro. Chemistry II & lab (Pre: CHE 1101)
CHE 2101/2203 (4) Fund.of Organic Chem & Lab (Pre: CHE 1102/1120)

Mathematics
MAT 1110 (4) Calc w/Analytic Geometry I (Pre: MAT 1025 w/C-)
STT 2810 (3) Intro to Statistics (Pre: MAT 1010)

Major Requirements that count in Gen Education:
Quantitative Lit  
MAT 1110 (4)  
Science Inquiry  
CHE 1101/1110 (4 s.h.)  
CHE 1102/1120 (4 s.h.)

Total Major hrs: 78
Gen Ed hrs: 12
Net Major hrs: 66

III. MINOR (optional)

IV. ELECTIVES (taken to a minimum of 128 hours for the degree) ......................................................................................................................................................................................... 18
2 semester hour of free electives must be outside the major discipline.

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Revised 1/2012