

**I. CORE CURRICULUM ..... 44**

Chemistry 1101-1110, 1102-1120 will count toward the science requirement. Math 1110 will count toward the math requirement. Depending on the concentration chosen, some courses may also apply toward social science requirement. Courses used to fulfill Core Curriculum requirements can also be used to fulfill major requirements.

**II. MAJOR REQUIREMENTS (Not including 12 s.h. already counted in I, above).....65-66**

**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: 12 semester hours (must be completed before taking any other biology courses)**

BIO 1110 \_\_\_\_ (4) Concepts of Biology  
BIO 2000 \_\_\_\_ (4) Introduction to Botany  
BIO 2001 \_\_\_\_ (4) Introduction to Zoology

Major Designators

2 Writing (W) \_\_\_\_ \_\_\_\_  
1 Speaking (S) \_\_\_\_  
Certified Proficiency in Communication (CPC) \_\_\_\_  
CPC is met by completion of W and S courses within the major with a grade of "C" or better.

Other Designators

4 Writing (W) \_\_\_\_ \_\_\_\_ \_\_\_\_ \_\_\_\_  
(English 1000 and 1100 will count as 2 W)  
4 Multi Cultural (MC) \_\_\_\_ \_\_\_\_ \_\_\_\_ \_\_\_\_  
(History 1101 and 1102 will count as 2 MC)  
2 Numerical Data (ND) \_\_\_\_ \_\_\_\_  
2 Computer (C) \_\_\_\_ \_\_\_\_  
1 Cross Disciplinary (CD) \_\_\_\_

**B. Additional Required Biology Courses: 34 semester hours**

BIO 3302 \_\_\_\_ (4) Ecology (ND, C)  
BIO 3306 \_\_\_\_ (3) Genetics (ND)  
BIO 3436 \_\_\_\_ (3) Introduction to Evolutionary Biology (W, S, ND)

**and** one of the following:

BIO 3301 \_\_\_\_ (4) Animal Physiology (W, ND)  
BIO 3308 \_\_\_\_ (4) Bacteriology  
BIO 3800 \_\_\_\_ (4) Molecular Biology (W, ND, C)  
BIO 4100 \_\_\_\_ (4) Cell Biology  
BIO 4555 \_\_\_\_ (4) Plant Physiology (W, ND, C)

**Any four from the following (must include one plant biology course):**

BIO 3304 ____ (3) Systematic Botany	BIO 3310 ____ (3) Marine Biology (W)
BIO 3314 ____ (4) Comparative Vertebrate Zoology	BIO 4552 ____ (3) Entomology
BIO 4551 ____ (3) Ornithology	BIO 4557 ____ (3) Ichthyology
BIO 4556 ____ (4) Mycology	BIO 4560 ____ (3) Herpetology
BIO 4559 ____ (3) Mammalogy	BIO 4569 ____ (4) Invertebrate Zoology
BIO 4601 ____ (3) Animal Behavior-Ethology (W, S, ND)	

**6-8 elective hours to complete 34 semester hours** \_\_\_\_\_

**C. Required Cognate Courses: 19 semester hours**

NOTE: 12 semester hours of cognate courses are counted in Core Curriculum requirements.

Chemistry

CHE 1101/1110 \_\_\_\_ (4) Intro. Chem. I (ND) & lab  
CHE 1102/1120 \_\_\_\_ (4) Intro. Chem. II (ND) & lab

Mathematics

MAT 1110 \_\_\_\_ (4) Calculus w/ Analytic Geometry I (ND)  
STT 2810 \_\_\_\_ (3) Intro to Data Analysis & Statistical Inference (ND, C)

CHE 2101/2203 \_\_\_\_ (4) Fundamentals of Organic Chemistry & lab\*

\*The sequence of CHE 2201/2203 and CHE 2202/2204 can substitute for CHE 2101/2203

**OR**

CHE 2210 \_\_\_\_ (4) Quantitative Analysis (W)

**D. Basic Science Concentration: 12-13 semester hours**

Choose Option 1 (13 hours) or Option 2 (12 hours). Students are encouraged to complete a minor in their chosen concentration by selection of one or two additional courses (consult advisor).

**Option 1 (Complete 13 hours with at least 1 course from each area)**

Area 1. ECO 2030 \_\_\_\_ (3) Principles of Eco – Price Theory  
Area 2. GLY 1101 \_\_\_\_ (4) Intro to Physical Geology (ND)  
GLY 1102 \_\_\_\_ (4) Intro to Historical Geol (ND, CD)  
GLY 1103 \_\_\_\_ (4) Intro to Envir & Appl Geol (ND)  
Area 3. GHY 1010 \_\_\_\_ (3) Physical Geography  
GHY 3100 \_\_\_\_ (3) Weather and Climate

**Option 2 (12 semester hours required)**

CHE 2202/2204 \_\_\_\_ (4) Organ. Chem. II & lab (W)  
PHY 1103 \_\_\_\_ (4) General Physics (ND)  
PHY 1104 \_\_\_\_ (4) General Physics (ND)

**III. MINOR (optional)**

**IV. ELECTIVES (taken to a minimum of 128 hours for the degree) ..... 18-19**

**2 semester hours of free electives must be outside the major discipline.**