

**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

**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) Microbiology  
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 3314 \_\_\_\_ (4) Comparative Vertebrate Zoology  
BIO 4551 \_\_\_\_ (3) Ornithology  
BIO 4556 \_\_\_\_ (4) Mycology  
BIO 4559 \_\_\_\_ (3) Mammalogy  
BIO 4601 \_\_\_\_ (3) Animal Behavior-Ethology (W, S, ND)

**5-8 elective hours to complete 34 semester hours \_\_\_\_\_**

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) \_\_\_\_ \_\_\_\_

**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

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

**OR**

CHE 2210/2211 \_\_\_\_ (4) Quantitative Analysis & Lab (W)

**Mathematics**

MAT 1110 \_\_\_\_ (4) Calculus w/Analytic Geom I (ND)  
STT 2810 \_\_\_\_ (3) Introduction to Statistics (ND, C)

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

**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 I (ND)  
PHY 1104 \_\_\_\_ (4) General Physics II (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.