

**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**

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

<u>Major Designators</u>	
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.	
<u>Other Designators</u>	
4 Writing (W)	____ ____ ____ ____
4 Multi Cultural (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) 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 3310 ____ (3) Marine Biology (W)   |
| BIO 3314 ____ (4) Comparative Vertebrate Zoology      | BIO 4551 ____ (3) Ornithology          |
| BIO 4552 ____ (3) Entomology                          | BIO 4556 ____ (4) Mycology             |
| BIO 4557 ____ (3) Ichthyology                         | BIO 4559 ____ (3) Mammalogy            |
| BIO 4560 ____ (3) Herpetology                         | BIO 4569 ____ (4) Invertebrate Zoology |
| BIO 4601 ____ (3) Animal Behavior-Ethology (W, S, ND) |  |

**5-8 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 Geom I (ND)
- STT 2810 \_\_\_\_ (3) Introduction to Statistics (ND, C)

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

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

**OR**

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

**D. Geography and Landscape Ecology Concentration: 12 semester hours**

Students are encouraged to complete a minor in their chosen concentration by selection of one or two additional courses (consult advisor).

**Required:** GHY 1010 \_\_\_\_ (3) Introduction to Physical Geography

**Choose any three of the following:**

- |  |  |
|--|--|
| GHY 3100 ____ (3) Weather and Climate              | GHY 3310 ____ (3) Environmental Remote Sensing |
| GHY 3110 ____ (3) Vegetation, Soils, and Landforms | GHY 4820 ____ (3) Geographical Hydrology       |

**III. MINOR (optional)**

**IV. ELECTIVES (taken to a minimum of 128 hours for the degree) ..... 19**  
2 semester hours of free electives must be outside the major discipline. 128