

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

Chemistry 1101-1110, 1102-1120 will count toward the science requirement. Math 1110 will count toward the math 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) ..... 74**

**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 major in Biology leading to the Bachelor of Science degree in Clinical Laboratory Sciences consists of 96 semester hours of work at Appalachian (12 of which also meet Core Curriculum requirements) and 32 semester hours of work at an affiliated medical technology school. The 96 semester hours at Appalachian include 44 semester hours in core curriculum; 31 semester hours in biology; 8 semester hours in chemistry beyond the Core Curriculum requirements; 3 semester hours in statistics (and 4 semester hours of math which also fulfills the Core Curriculum requirement); and 10 hours of electives to complete 96 semester hours at Appalachian State University.

**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: 19 semester hours**

BIO 3301 \_\_\_\_\_ (4) Animal Physiology (W, ND)  
BIO 3306 \_\_\_\_\_ (3) Genetics (ND)  
BIO 3308 \_\_\_\_\_ (4) Microbiology  
BIO 3800 \_\_\_\_\_ (4) Molecular Biology (W, ND, C)  
BIO 4568 \_\_\_\_\_ (4) Immunology

**C. Required Chemistry Courses: 16 semester hours**

CHE 1101/1110 \_\_\_\_\_ (4) Introductory Chem. I (ND) & lab  
CHE 1102/1120 \_\_\_\_\_ (4) Introductory Chem. II (ND) & lab  
CHE 2201/2203 \_\_\_\_\_ (4) Organic Chemistry I & lab  
CHE 2202/2204 \_\_\_\_\_ (4) Organic Chemistry II & lab (W)

NOTE: CHE 1101/1110 and 1102/1120 are included in Core Curriculum Requirements

**D. Required Mathematics Courses: 7 semester hours**

MAT 1110 \_\_\_\_\_ (4) Calculus w/ Analytic Geometry I (ND) (included in Core Curriculum requirements)  
STT 2810 \_\_\_\_\_ (3) Introduction to Statistics (ND, C)

**E. Courses Taken at an Affiliated Medical Technology School: 32 semester hours**

Courses include Clinical Chemistry (nine semester hours), Clinical Microbiology (ten semester hours), Clinical Microscopy (nine semester hours), and Blood Banking (four semester hours).

**III. MINOR (optional)****IV. ELECTIVES (taken to total 128 hours for the degree) ..... 10**

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

**128**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) \_\_\_\_\_