

**Bachelor of Science (BS)**  
**Degree Code 214\***  
**Concentration Code 214E**

**Program of Study for Chemistry Majors**  
**PRE-PROFESSIONAL AND PARAMEDICAL**

**I. GENERAL EDUCATION CURRICULUM ..... 44**

CHE 1101, 1110, 1102, and 1120 fulfills the Science Inquiry Perspective. MAT 1110 fulfills Quantitative Literacy.

**II. MAJOR REQUIREMENTS (Not including 12 s.h. already counted in I, above) ..... 68-70**

**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. Chemistry (32 semester hours)**

CHE 1101	_____ (3)	Introductory Chemistry I (Co: CHE 1110)
CHE 1110	_____ (1)	Introductory Chemistry I Lab (Co: CHE 1101)
CHE 1102	_____ (3)	Introductory Chemistry II (Pre: CHE 1101/1110; Co: CHE 1120)
CHE 1120	_____ (1)	Introductory Chemistry II Lab (Co: CHE 1102)
CHE 2201	_____ (3)	Organic Chemistry I (Pre: CHE 1102/1120; Co: CHE 2203)
CHE 2203	_____ (1)	Organic Chemistry I Lab (Pre: CHE 1102/1120; Co: CHE 2201)
CHE 2202	_____ (3)	Organic Chemistry II (Pre: CHE 2201/2203 w/minimum grade "C-"; Co: CHE 2204)
CHE 2204	_____ (1)	Organic Chemistry II Lab (Pre: CHE 2201/2203 w/minimum grade of "C-"; Co: CHE 2202)
CHE 2210	_____ (3)	Quantitative Analysis (Pre: CHE 1102/1120; Co: CHE 2211)
CHE 2211	_____ (1)	Quantitative Analysis Lab (Co: CHE 2210)
CHE 3000	_____ (1)	Introduction to Chemical Research (Pre: CHE 2101 or 2202; CHE 2210)
CHE 3301	_____ (3)	Physical Chemistry I (Pre: CHE 2210/2211; MAT 1120; PHY 1151)
CHE 3303	_____ (1)	Physical Chemistry I Laboratory [WID] (Pre: ENG 2001; Pre/Co: CHE 3301)
CHE 3404	_____ (3)	Inorganic Chemistry (Pre: CHE 3301)
CHE 4000	_____ (1)	Chemistry Seminar [CAP] (Pre: CHE 3000, 3303)
CHE 4580	_____ (3)	Biochemistry I (Pre: CHE 2101 or 2202)

**B. Physics (10 semester hours)**

PHY 1150	_____ (5)	Analytical Physics I (Co: MAT 1110)
PHY 1151	_____ (5)	Analytical Physics II (Co: MAT 1120)

**C. Mathematics (8 semester hours)**

MAT 1110	_____ (4)	Calculus with Analytic Geometry I (Pre: MAT 1025 w/min grade C-)
MAT 1120	_____ (4)	Calculus with Analytic Geometry II (Pre: MAT 1110 w/min grade C-)

**D. Other Science (6-8 semester hours)** selected from: astronomy, biology, geology, or physics. GLY 2301 may be used in General Education Perspectives. \_\_\_\_\_ (Physics courses at the 1000 level and PHY 3350 are not accepted)

**E. Preprofessional & Paramedical Concentration (24 semester hours)** (Substitutions permitted with departmental approval)

(Pre: BIO 1801 for all BIO courses  $\geq$  2000)

BIO 1801	_____ (4)	Biological Concepts I (Co: CHE 1101)
BIO 2001	_____ (4)	Introduction to Zoology
BIO 2400	_____ (3)	Genetics (Pre: CHE 1102; MAT 1025) <b>OR</b> BIO 2700 _____ (3) Human Genetics (Pre: CHE 1102; MAT 1025)
BIO 2410	_____ (1)	Genetics Laboratory (Pre or Co: BIO 2400 or 2700)
BIO 3301	_____ (4)	Human Systems Physiology (Pre: CHE 2201 or 2101)
BIO 3308	_____ (4)	Microbiology (Pre: CHE 1102/1120)

Choose 4 sh from:

BIO 2600	_____ (3)	Cell Biology (Pre: CHE 1102)
BIO 2610	_____ (1)	Cell Biology Laboratory (Pre: MAT 1025; Pre/Co: BIO 2600)
BIO 3314	_____ (4)	Comparative Vertebrate Zoology [WID – BIO] (Pre: ENG 2001)
BIO 3800	_____ (4)	Molecular Biology (Pre: CHE 2201 or 2101)
BIO 4568	_____ (4)	Immunology (Pre/Co: BIO 2400)

**III. MINOR (optional)**

**IV. ELECTIVES (taken to total 122 hours for the degree)..... 8-10**

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

**122**