

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
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 (37 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 3560	_____ (3)	Instrumental Methods of Analysis (Pre: CHE 3301; Co: CHE 3561)
CHE 3561	_____ (1)	Instrumental Methods of Analysis Lab (Co: CHE 3561)
CHE 4000	_____ (1)	Chemistry Seminar [CAP] (Pre: CHE 3000, 3303)
CHE 4580	_____ (3)	Biochemistry I (Pre: CHE 2101 or 2202)
CHE 4581	_____ (1)	Biochemistry I Lab (Pre: CHE 2102 or 2204; Co: 4580; Sr. standing)

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 (7 semester hours)

BIO 1801	_____ (4)	Biological Concepts I (Co: CHE 1101)
BIO 2600	_____ (3)	Cell Biology (Pre: BIO 1801; CHE 1102)

E. Fermentation Sciences Concentration (18 semester hours)

BIO 3308	_____ (4)	Microbiology (Pre: BIO 1801; CHE 1102/1120)
FER 2000	_____ (1)	Social Implications of Fermented Beverages
FER 3200	_____ (3)	Facility Design and Operation
FER 4300	_____ (3)	Sensory Analysis of Wine and Beer (Pre: FER 4100 or CHE/FER 4200; STT 2810)
NUT 3210	_____ (3)	Beverage Management

Choose one of the following:

FER 4100	_____ (4)	Wine Production & Analysis (Pre: CHE 2210 & 2211)
CHE/FER 4200	_____ (4)	Brewing Science & Analysis (Pre: CHE 2210 & 2211)

III. MINOR (optional)

IV. ELECTIVES (taken to total 122 hours for the degree)..... 10
2 semester hours of free electives must be outside the major discipline. **122**

Total major = 80 hrs; Gen Ed courses may count in major (depends on choices) – up to 12; net major 68 hours.

Electives recommended by department:

FER 1000 Principles of Fermentation Sciences (3 sh); FER 3000 Viticulture: Vine Physiology & Vineyard Establishment (4 sh); ACC 1050 Survey of Accounting (3 sh); BUS 1050 Introduction to Business (3 sh); MGT 3060 Opportunity and Entrepreneurship (3 sh); MGT 4650 Venture Creation (3 sh) (Pre: "C" in WID; FIN 3680 MGT 3630; MKT 3050); CHE 2526 Chemical Safety (1 sh);