

I. GENERAL EDUCATION CURRICULUM 44
CHE 1101/1110 & 1102/1120 fulfill the Science Inquiry perspective. Math 1110 fulfills the Quantitative Literacy requirement.

II. MAJOR REQUIREMENTS (not including 12 s.h. counted in Area I, above) 53
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. Mathematics Common Core (14-15 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-)
MAT 2240	_____	(3) Introduction to Linear Algebra (Pre: MAT 1120)

Choose one:

MAT 2110	_____	(3) Techniques of Proof (Pre: MAT 1120)
MAT 2510	_____	(4) Sophomore Honors Seminar (Pre: MAT 1120)

B. General Mathematics Concentration (29-31 hours; 6 hours must be at 4000 level, 3 hours of which must be MAT)

MAT 2310	_____	(3) Computational Mathematics (Pre: MAT 1120)
MAT 3130	_____	(3) Introduction to Differential Equations (Pre: MAT 1120)
MAT 3220	_____	(3) Introduction to Real Analysis [WID] (Pre: ENG 2001, MAT 2110 or 2510)
MAT 3350	_____	(3) Introduction to Mathematical Biology (Pre: MAT 1120; Jr. standing)
STT 3850	_____	(4) Statistical Data Analysis I (Pre: MAT 1110)

Choose one:

MAT 4310	_____	(3) Numerical Methods (Pre: MAT 2310)
STT 3851	_____	(3) Statistical Data Analysis II [WID] (Pre: ENG 2001, STT 3850)

Choose one:

MAT 4040	_____	(1) Mathematics Capstone [CAP] (Pre: Sr. standing)
MAT 4510	_____	(3) Senior Honors Thesis [CAP] (Pre: MAT 3510; 3.45+ GPA in math)

4-7 hours of approved electives** in mathematical sciences to bring total hrs in AREA II to 65 hrs (at least 4 hours at 4000 level, 3 of which must have MAT prefix)

**Must be approved by advisory committee.

C. A Life Sciences Concentration (24-28 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 (Co: CHE 2201)
BIO 1801	_____	(4) Biological Concepts I (Co: CHE 1101)
or both BIO 1101	_____	(4) Biology in Society I
and BIO 1102	_____	(4) Biology in Society II

Choose two: (Pre: BIO 1801 for all BIO courses above 2000)

BIO 3302	_____	(4) Ecology	
BIO 2400	_____	(3) Genetics (Pre: CHE 1102, MAT 1025)	AND BIO 2410 _____ (1) Genetics Lab (Pre/Co: BIO 2400/2700)
BIO 2600	_____	(3) Cell Biology (Pre: CHE 1102)	AND BIO 2610 _____ (1) Cell Bio Lab (Pre: MAT 1025; Co: BIO 2600)
BIO 3800	_____	(4) Molecular Biology (Pre: CHE 2201 or 2101)	

III. MINOR (optional)

IV. ELECTIVES (taken to total 122 hours for the degree) 25
2 semester hours of free electives must be outside the major discipline. 122