

I. GENERAL EDUCATION CURRICULUM44
Chemistry 1101/1110 & 1102/1120 fulfill the Science Inquiry perspective. MAT 1110 fulfills Quantitative Literacy.

II. MAJOR REQUIREMENTS (not including 12 hours counted in Area I, above).....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. Since many upper level Geology courses require GLY 1101 as a prerequisite, it is highly recommended that students complete this course during their freshman year.

A. Geology (31 semester hours):

- GLY 1101 _____ (4) Introduction to Physical Geology **OR** GLY 1510 _____ (4) Geological Science Honors (Pre: MAT 1020)
- GLY 2250 _____ (4) Evolution of the Earth (Pre: GLY 1101)
- GLY 2745 _____ (4) Preparation of Geologic Reports [WID] (Pre: ENG 2001; GLY 2250)
- GLY 3150 _____ (3) Principles of Structural Geology and Tectonics (Pre: GLY 2250, 2745)
- GLY 3220 _____ (3) Fundamentals of Mineralogy (Pre: GLY 2250)
- GLY 3715 _____ (3) Petrology and Petrography (Pre: CHE 1101/1110; GLY 2250, 2745, 3220)
- GLY 3800 _____ (3) Introduction to Stratigraphy and Sedimentology (Pre: GLY 2250)
- GLY 4210 _____ (1) Geology Seminar (Pre: Senior Standing)
- GLY 4835 _____ (6) Summer Field Geology or other approved field course (Pre: GLY 3150, 3715, 3800)

Major Requirements that count in Gen Education:	
Science Inquiry	
CHE 1101/1110	4 s.h.
CHE 1102/1120	4 s.h.
Quantitative Literacy	
MAT 1110	4 s.h.
Total Major hrs:	82
Gen Ed hrs:	- 12
Net Major hrs:	70

B. Quantitative Courses (12 semester hours)

- PHY/GLY 3160 _____ (3) Introduction to Geophysics (Pre: 1 intro GLY; PHY 1101; MAT 1110)
- GLY 4630 _____ (3) Hydrogeology (Pre: 6 s.h. GLY ≥ 2000; Jr. standing)
- GLY 4705 _____ (3) Advanced Environmental & Engineering Geology [CAP] (Pre: 6 s.h. GLY ≥ 2000; Jr. standing)

3 semester hours of geology courses at or above 3000 level _____

C. Mathematics/Chemistry/Physics (33 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 of C-)
- MAT 2130 _____ (4) Calculus with Analytic Geometry III (Pre: MAT 1120 w/min grade of C-)
- MAT 2240 _____ (3) Intro to Linear Algebra (Pre: MAT 1120) **OR** MAT 3130 _____ (3) Intro to Differential Equations (Pre: MAT 1120)
- 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)
- PHY 1150 _____ (5) Analytical Physics I (Co: MAT 1110)
- PHY 1151 _____ (5) Analytical Physics II (Co: MAT 1120)

D. Six semester hours from the following:

- STT 2810 _____ (3) Introduction to Statistics (Pre: MAT 1010)
- STT 3820 _____ (3) Statistical Methods I (Pre: STT 2810/2820)
- Or other Geology advisor approved courses based on statistical applications _____
- CS 1425 _____ (3) Overview of Computer Science (Co: MAT 1020/1025)
- CS 1440 _____ (4) Computer Science I (Pre: MAT 1020/1025 w/minimum grade "C-")
- GHY 3820 _____ (3) GIS for Social and Environmental Sciences

During the senior year the B.S. (non-teaching) student must take and achieve a satisfactory score on a COMPREHENSIVE EXAMINATION covering theoretical and practical aspects in areas of geology. Students who are unsuccessful on portions or all of the examination may retake appropriate portions up to two additional times prior to graduation.

III. MINOR (optional)

IV. ELECTIVES (taken to total 122 hours for the degree).....8
2 semester hours of free electives must be outside the major discipline. **122**