

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

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
- GLY 2250 \_\_\_\_\_ (4) Evolution of the Earth (Pre: GLY 1101)
- GLY 2745 \_\_\_\_\_ (4) Preparation of Geologic Reports [WID] (Pre: ENG 2001; GLY 1101, 2250)
- GLY 3150 \_\_\_\_\_ (3) Principles of Structural Geology and Tectonics (Pre: GLY 2250, 2745)
- GLY 3220 \_\_\_\_\_ (3) Fundamentals of Mineralogy (Pre: GLY 1101)
- GLY 3715 \_\_\_\_\_ (3) Petrology and Petrography (Pre: CHE 1101/1110; GLY 2250, 2745, 3220)
- GLY 3800 \_\_\_\_\_ (3) Introduction to Stratigraphy and Sedimentology (Pre: GLY 1102, 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: GLY 1101; PHY 1103; 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; 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 with grade of C- or better)
- MAT 1120 \_\_\_\_\_ (4) Calculus with Analytic Geometry II (Pre: MAT 1110 with grade of C- or better)
- MAT 2130 \_\_\_\_\_ (4) Calculus with Analytic Geometry III (Pre: MAT 1120 with grade of C- or better)
- 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 or 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.