

I. GENERAL EDUCATION CURRICULUM 44

CHE 1101/1110 & CHE 1102/1120 fulfill Science Inquiry perspective and MAT 1110 fulfills Quantitative Literacy in general education. Some general education requirements may be double-counted in the major. Please see your advisor for information.

II. MAJOR REQUIREMENTS (not including 12 hours counted in Area I) 74-75

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. Required Geology courses (19 semester hours)

Choose one 1000-level geology course:

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|-------------------|--|-------------------|-------------------------|
| GLY 1101 ____ (4) | Introduction to Physical Geology | GLY 1104 ____ (4) | Water: Mountains to Sea |
| GLY 1102 ____ (4) | Introduction to Historical Geology | GLY 1105 ____ (4) | Oceanography |
| GLY 1103 ____ (4) | Environmental Change, Hazards, & Resources | | |
| GLY 2250 ____ (4) | Evolution of the Earth (Pre: GLY 1101,1102,1103,1104, or 1105) | | |
| GLY 2745 ____ (4) | Preparation of Geologic Reports [WID] (Pre: RC 2001, GLY 2250) | | |
| GLY 3150 ____ (3) | Principles of Structural Geology and Tectonics (Pre: GLY 2250, 2745) | | |
| GLY 3800 ____ (3) | Sedimentology and Stratigraphy (Pre: GLY 2250) | | |
| GLY 4210 ____ (1) | Geology Seminar [CAP] (Pre: Sr. standing) | | |

B. Environmental Geology courses (21 semester hours)

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| GLY 3131 ____ (3) | Geochemistry (Pre: GLY 2250, CHE 1101/1110, MAT 1110) | | |
| GLY 3160 ____ (3) | Introduction to Geophysics (Pre/Co: GLY 1101,1102,1103,1104, 1105, or 1510; PHY 1103 or 1150; MAT 1110)) | | |
| GLY 3703 ____ (3) | Issues in Environmental Geology (Pre: 6 sh GLY) | | |
| GLY 4630 ____ (3) | Hydrogeology (Pre: 6 s.h. GLY ≥ 2000; Jr. standing) | | |
| GLY 4705 ____ (3) | Advanced Environmental and Engineering Geology (Pre: 6 s.h. GLY ≥ 2000; Jr. standing) | | |

Plus choose 6 sh from the following:

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| GLY 3025 ____ (3) | Principles of Paleontology (Pre: GLY 2250 or 6 sh BIO or ANT ≥ 2000) | | |
| GLY 3220 ____ (3) | Fundamentals of Mineralogy (Pre: GLY 2250) | | |
| GLY 3333 ____ (3) | Geomorphology (Pre: 6 sh GLY) | | |
| GLY 3680 ____ (3) | Geoarchaeology (Pre: 4 sh GLY) | | |
| GLY 3715 ____ (3) | Petrology and Petrography (Pre: CHE 1101/1110; GLY 2250, 2745, 3220) | | |
| GLY 4501 ____ (1-3) | Senior Research (Pre: Sr standing; min GPA 3.25 in GLY) | | |
| GLY 4510 ____ (3) | Senior Honors Thesis (Pre: GLY 4501; Sr. standing; min GPA 3.25 in GLY) | | |
| GLY 4835 ____ (6) | Summer Field Geology (Pre: GLY 3150, 3715, 3800) | | |

C. Math/Chemistry/Physics courses (22-23 semester hours)

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| CHE 1101/1110 ____ (4) | Introductory Chemistry I & Lab | | |
| CHE 1102/1120 ____ (4) | Introductory Chemistry II & Lab (Pre: CHE 1101/1110) | | |
| GLY/ENV 3455 ____ (3) | Quantitative Data Analysis for Earth & Environmental Scientists (Pre: GLY 2250; MAT 1110; PHY 1150) | | |
| Or CS 1440 ____ (4) | Computer Science I (Pre: MAT 1020/1025 w/minimum grade "C-") | | |
| Or CS 1445 ____ (4) | Intro to Programming w/Interdisciplinary Applications (Pre: MAT 1020 or 1025 with C- or higher) | | |
| MAT 1110 ____ (4) | Calculus with Analytic Geometry I (Pre: MAT 1025 w/min grade C-) | | |
| PHY 1103 ____ (4) | General Physics I (Co: MAT 1020/1025) | | |
| STT 2810 ____ (3) | Introduction to Statistics (Pre: MAT 1010) | | |

D. Associated Environmental Electives (Choose 12 semester hours from the following)

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| ECO 2620 ____ (3) | Environmental & Resource Economics | LAW 2150 ____ (3) | Legal Environment of Business |
| FIN 3010 ____ (3) | Survey of Finance (Pre: Jr. standing) | MGT 3010 ____ (3) | Survey of Management (Pre: Jr stdg) |
| Elec _____ (3) | Advisor approved, computer intensive course | P S 2130 ____ (3) | State and Local Government |

E. Courses in Cartography & Geographic Information Systems (GIS) (Choose 12 semester hours from the following)

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| GHY/PLN 2812 ____ (3) | Geospatial Data & Technology | GHY 3812 ____ (3) | Intro to GIS (Pre: GHY 2310, 2812) |
| GHY 3310 ____ (3) | Environmental Remote Sensing | GHY 4812 ____ (3) | Advanced GIS (Pre: GHY 3812; Sr stdg) |
| GHY 4814 ____ (3) | Principles of GeoComputation (Pre: GHY 3812; Sr standing) | | |

During the senior year, the B.S. Geology with an Environmental Geology concentration student must take and achieve a satisfactory score on a comprehensive examination covering theoretical and practical aspects of areas of geology. Students who are unsuccessful on any portion or all of the examination may retake the appropriate portion(s) up to two additional times before graduation.

III. MINOR (optional)

IV. ELECTIVES (taken to total 122 hours for the degree)..... 3-4

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