I. GENERAL EDUCATION CURRICULUM

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

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:

- GLY 1101 (4) Introduction to Physical Geology
- GLY 1102 (4) Introduction to Historical Geology
- GLY 1103 (4) Environmental Geology
- GLY 2250 (4) Evolution of the Earth (Pre: GLY 1101, 1102, 1103, 1104, or 1105)
- GLY 3150 (3) Principles of Structural Geology and Tectonics (Pre: GLY 2250, 2745)
- GLY 3800 (3) Sedimentology and Stratigraphy (Pre: GLY 2250 & 2745)
- GLY 4210 (1) Geology Seminar [CAP] (Pre: Sr. standing)

B. Environmental Geology courses (24 semester hours)

- GLY 3131 (3) Environmental 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 3333 (3) Geomorphology (Pre: 6 sh GLY)
- GYL 3703 (3) Issues in Environmental Geology (Pre: 6 sh GLY)
- GYL 4630 (3) Hydrogeology (Pre: GYL 2250; MAT 1110; PHY 1103 or 1150)
- GYL 4705 (3) Engineering Geology (Pre: 6 s.h. GLY ≥ 2000; Sr. standing)

Plus choose 6 sh from the following:

- GLY 3025 (3) Principles of Paleontology (Pre: GYL 2250 or 6 sh BIO or ANT ≥ 2000)
- GLY 3220 (3) Fundamentals of Mineralogy (Pre/Co: GYL 2745; CHE 1101 & 1110)
- ENV/GLY 3455 (3) Quantitative Data Analysis for Earth & Env Scientists (Pre: GYL 2250; MAT 1110; PHY 1150)
- GLY 3680 (3) Geoarchaeology (Pre: 4 sh GLY)
- GLY 3715 (3) Petrology and Petrography (Pre: CHE 1101/1110; GYL 2250, 2745, 3220)
- GYL 4501 (1-3) Senior Research (Pre: Sr standing; min GPA 3.25 in GLY)
- GYL 4510 (3) Senior Honors Thesis (Pre: GYL 4501; Sr. standing; min GPA 3.25 in GLY)
- GYL 4835 (6) Summer Field Geology (Pre: GYL 3150, 3715, 3800)

C. Math/Chemistry/Physics courses (19 semester hours)

- CHE 1101/1110 (4) Introductory Chemistry I & Lab (Pre: MAT 1020 or higher)
- CHE 1102/1120 (4) Introductory Chemistry II & Lab (Pre: CHE 1101/1110; MAT 1020 or higher)
- MAT 1110 (4) Calculus with Analytic Geometry I (Pre: MAT 1025 w/min grade C-)
- PHY 1103 (4) General Physics I (Pre: MAT 1020/1025)
- STT 2810 (3) Introduction to Statistics (Pre: MAT 1010 or higher)

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

- ECO 2620 (3) Environmental & Resource Economics
- ENV/GLY 4110 (3) Env’l Mgmt & Impact Analysis
- FIN 3010 (3) Survey of Finance (Pre: 84 earned hours)
- PLN 4460 (3) Environmental Policy & Planning
- ENV/GLY 3455 (3) Quantitative Data Analysis for Earth & Env Scientists
- GYL 2250 & 2745
- CHE 1101/1110; GYL 2250, 2745
- MAT 1110
- GYL 2745
- CHE 1101 & 1110
- MAT 1110
- PHY 1103 or 1150
- SR standing
- GLY 2250 & 2745
- GLY 3150, 3715, 3800
- Pre: 12 hours counted in Area I

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

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

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