Bachelor of Science (BS)  
Degree Code 259*  
ENVIRONMENTAL GEOLOGY CONCENTRATION  
Concentration Code 259C

I. GENERAL EDUCATION CURRICULUM ........................................................................................................................................... 44  
CHE 1101/1110 & CHE 1102/1120 fulfill Science Inquiry perspective and MAT 1110 fulfills Quantitative Literacy in general education.  

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:  
GLY 1101 (4) Introduction to Physical Geology  
GLY 1102 (4) Introduction to Historical Geology  
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) Preparatlon of Geologic Reports [WID] (Pre: ENG 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)  
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: Science Inquiry met)  
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:  
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) Petroleum 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)  
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  
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)  
ECO 2620 (3) Environmental & Resource Economics  
FIN 3010 (3) Survey of Finance  
Elec (3) Advisor approved, computer intensive course  
LAW 2150 (3) Legal Environment of Business  
MGT 3010 (3) Survey of Management  
P S 2130 (3) State and Local Government  

E. Courses in Cartography & Geographic Information Systems (GIS) (Choose 12 semester hours from the following)  
GHY 2812 (3) Geospatial Data & Technology  
GHY 3310 (3) Environmental Remote Sensing  
GHY 4812 (3) Advanced GIS (Pre: GHY 3812)  

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) ........................................................................................................................................ 122  
2 semester hours of free electives must be outside the major discipline.  

Total major requirements – 86-87; Gen Ed courses that may count in major (depends on choices) – 12; net major 74-75 hours;