Bachelor of Science (BS) 2015-2016 Program of Study for Geology Majors
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. 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:
- 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
- GLY 2745 (4) Preparation of Geologic Reports
- GLY 3150 (3) Principles of Structural Geology and Tectonics
- GLY 3800 (3) Sedimentology and Stratigraphy
- GLY 4210 (1) Geology Seminar

Plus choose 6 sh from the following:
- GLY 3025 (3) Principles of Paleontology
- GLY 3220 (3) Fundamentals of Mineralogy
- GLY 3333 (3) Geomorphology
- GLY 3680 (3) Geoarchaeology
- GLY 3715 (3) Petrology and Petrography
- GLY 4510 (3) Senior Honors Thesis
- GLY 4705 (3) Advanced Environmental and Engineering Geology

B. Environmental Geology courses (21 semester hours)
- GLY 3131 (3) Geochemistry
- GLY 3160 (3) Introduction to Geophysics
- GLY 3703 (3) Issues in Environmental Geology
- GLY 4630 (3) Hydrogeology
- GLY 4705 (3) Advanced Environmental and Engineering Geology

Plus choose 6 sh from the following:
- GLY 3025 (3) Principles of Paleontology
- GLY 3220 (3) Fundamentals of Mineralogy
- GLY 3333 (3) Geomorphology
- GLY 3680 (3) Geoarchaeology
- GLY 3715 (3) Petrology and Petrography
- GLY 4510 (3) Advanced Environmental and Engineering Geology

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
- CHE 1101/1110 (4) Introductory Chemistry I & Lab
- G/LY ENV 3455 (3) Quantitative Data Analysis for Earth & Environmental Scientists
- Or CS 1440 (4) Computer Science I
- Or CS 1445 (4) Computer Science I
- MAT 1110 (4) Calculus with Analytic Geometry I
- PHY 1103 (4) General Physics I

STT 2810 (3) Introduction to Statistics

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

E. Courses in Cartography & Geographic Information Systems (GIS) (Choose 12 semester hours from the following)
- GHY/PLN 2812 (3) Geospatial Data & Technology
- GHY 3310 (3) Environmental Remote Sensing
- GHY 4814 (3) Principles of GeoComputation

- GHY 3812 (3) Intro to GIS
- GHY 4812 (3) Advanced GIS

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.