Bachelor of Science (BS) Non-Teaching
Majors Degree Code 259D
Program of Study for Geology
PALEONTOLOGY

I. GENERAL EDUCATION CURRICULUM
Chemistry 1101/1110 & 1102/1120 fulfill the Science Inquiry. MAT 1110 fulfills the Quantitative Literacy requirement.

II. MAJOR REQUIREMENTS (not including 12 hours counted in Area I, above)
2.0 major GPA required for graduation. Major GPA calculation includes 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. Geology (37 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 3025 _____ (3) Principles of Paleontology (Pre: GLY 2250 or 6 sh ≥ 2000 BIO or ANT)
GLY 3150 _____ (3) Principles of Structural Geology and Tectonics (Pre: GLY 2250, 2745)
GLY 3220 _____ (3) Fundamentals of Mineralogy (Pre: GLY 2250)
GLY 3715 _____ (3) Petrology and Petrography (Pre: CHE 1101 & 1110; GLY 2250, 2745, 3220)
GLY 3800 _____ (3) Sedimentology and Stratigraphy (Pre: GLY 2250)
GLY 4210 _____ (1) Geology Seminar [CAP] (Pre: Sr. standing)
GLY 4835 _____ (6) Summer Field Geology or other approved field course (Pre: GLY 3150, 3715, 3800)

And choose 3 semester hours geology electives at or above 3000 level from the list below
GLY 3333 _____ (3) Geomorphology (Pre: 6 s.h. GLY)
GLY 4501 _____ (1-3) Senior Research (Pre: 3.25 GPA in GLY; Sr stdg)
GLY 4630 _____ (3) Hydrogeology (Pre: 6 s.h. GLY ≥ 2000; Jr stdg)
GLY 3530-49 _____ (3) Special Topics

B. Evolutionary Component (18 semester hours)
BIO 1801 _____ (4) Biological Concepts I (Co: CHE 1101)
And 14 hours evolutionary science from the following list:
ANT 2230 _____ (3) Biological Anthropology (Pre: RC 2001)
ANT 3200 _____ (3) Zooarchaeology (Pre: ANT 2221)
ANT 3300 _____ (3) Human Osteology (Pre: ANT 2230 w/min grade “C”)
BIO 1802 _____ (4) Biological Concepts II (Co: CHE 1101)
Any BIO course above the 2000 level (except BIO 2800, 3520, 4550, 4563)

C. Mathematics/Chemistry/Physics (26 semester hours)
MAT 1110_____ (4) Calculus with Analytic Geometry I (Pre: MAT 1025 w/min grade C-)
MAT 1120_____ (4) Calculus with Analytic Geometry II (Pre: MAT 1110 w/min grade C-)
CHE 1101/1110_____ (4) Introductory Chemistry I & Lab (Pre: CHE 1101 & 1110)
CHE 1102/1120_____ (4) Introductory Chemistry II & Lab (Pre: CHE 1101 & 1110)
PHY 1150_____ (5) Analytical Physics I (Co: MAT 1110)
PHY 1151_____ (5) Analytical Physics II (Co: MAT 1120)

D. Computer science/programming, GIS, or statistics courses (Choose 6-7 semester hours)
C S 1440 _____ (4) Computer Science I (Pre: MAT 1020/1025 w/minimum grade “C-“)
C S 1445 _____ (4) Intro to Programming w/Interdisciplinary Applications (Pre: MAT 1020/1025 with C- or higher)
GHY/PLN 2812 _____ (3) Geospatial Data & Technology
GHY 3310 _____ (3) Environmental Remote Sensing
GHY 3812 _____ (3) Introduction to GIS (Pre: GHY 2310, 2812)
GLY/ENV 3455 _____ (3) Quant Data Analysis for Earth & Env Sci (Pre: GLY 2250; MAT 1110; PHY 1150)
STT 2810 _____ (3) Introduction to Statistics (Pre: MAT 1010)
STT 3820 _____ (3) Statistical Methods I (Pre: STT 2810/2820)

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 125 hours for the degree)
2 semester hours of free electives must be outside the major discipline. Total hours must equal 125