

I. GENERAL EDUCATION CURRICULUM..... 44

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)..... 75-76

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:

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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 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 & 2745*)
- 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 hours geology electives from the list below

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| GLY 3333 ____ (3) Geomorphology (<i>Pre: 6 s.h. GLY</i>) | GLY 4510 ____ (3) Sr Hon Thesis (<i>Pre: GLY 4501; Sr. stdng; 3.25 GPA in GLY</i>) |
| GLY 3703 ____ (3) Issues in Env'l Gly (<i>Pre: 6 sh GLY</i>) | GLY 4630 ____ (3) Hydrogeology (<i>Pre: GLY 2250; MAT 1110; PHY 1103 or 1150</i>) |
| GLY 4501 ____ (1-3) Senior Research (<i>Pre: 3.25 GPA in GLY; Sr stdg</i>) | GLY 4705 ____ (3) Advanced Env & Eng Gly (<i>Pre: 6 s.h. GLY ≥ 2000; Jr stdng</i>) |
| 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:

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| ANT 2230 ____ (3) Biological Anthropology | ANT 3220 ____ (3) Human Biological Variation (<i>Pre: RC 2001</i>) |
| ANT 3200 ____ (3) Zooarchaeology (<i>Pre: ANT 2221</i>) | ANT 3300 ____ (3) Human Osteology (<i>Pre: ANT 2230 w/min grade "C"</i>) |
| BIO 1802 ____ (4) Biological Concepts II (<i>Co: CHE 1101</i>) | |
| 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
- 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 or higher*)
- 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) 5-6

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