Bachelor of Science (BS) Checksheet for Science Majors
Degree Code 121A ENVIRONMENTAL SCIENCE

I. GENERAL EDUCATION CURRICULUM
CHE 1101/1110 & CHEM 1102/1120 fulfills Science Inquiry perspective. MAT 1110 fulfills Quantitative Literacy requirement.

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. Science Core Requirements: 49 semester hours
BIO 1801 _____ (4) Biological Concepts I (Co: CHE 1101) CHE 1101/1110 _____ (4) Intro to Chemistry I & Lab
BIO 2000 _____ (4) Intro to Botany (Pre: BIO 1801) CHE 1102/1120 _____ (4) Intro to Chemistry II & Lab (Pre: CHE 1101/1110)
Or BIO 2001 _____ (4) Intro to Zoology (Pre: BIO 1801) CHE 2101/2203 _____ (4) Fund. of Organic Chem & Lab (Pre: CHE 1102/1120)
GLY 1101 _____ (4) Introduction to Physical Geology MAT 1110 _____ (4) Calc w/Analytic Geometry I (Pre: MAT 1025)
GLY 2250 _____ (4) Evolution of the Earth (Pre: GLY 1101) MAT 1220 _____ (4) Calc w/Analytic Geometry II (Pre: MAT 1110)
PHY 1150 _____ (5) Analytical Physics I (Co: MAT 1110) STT 2810 _____ (3) Introduction to Statistics (Pre: MAT 1010)
PHY 1151 _____ (5) Analytical Physics II (Co: MAT 1120)

B. Required Environmental Courses: 19 semester hours
(A writing course [WID] must be taken in the Junior year.)
BIO 3302 _____ (4) Ecology (Pre: BIO 1801) CHE 2550 _____ (3) Intro to Environmental Chemistry (Pre: CHE 1101/1110)
GLY 4630 _____ (3) Hydrogeology (Pre: 6 s.h. GLY) PHY 3140 _____ (3) Environmental Physics (Pre: PHY 1104 or 1151)
GHY 3820 _____ (3) GIS for Env & Social Sciences OR GHY 3812 _____ (3) Introduction to GIS (Pre: PHY 2310, 2812)
PLN 4460 _____ (3) Environmental Policy & Planning

C. Science Concentration: 12 semester hours
(Must choose from at least 2 of these categories.)
CHE 2550 _____ (3) Intro to Chemistry I & Lab CHE 2550 _____ (3) Intro to Chemistry I & Lab
CHE 2210 _____ (2) Quantitative Analysis (Pre: CHE 1102/1120; Co: 2211)
CHE 2211 _____ (2) Quantitative Analysis Lab (Co: CHE 2210)
CHE 3301 _____ (3) Physical Chemistry I (Pre: CHE 2210, MAT 1120, 1 year PHY)
CHE 3303 _____ (1) Physical Chemistry I Lab (Co: CHE 3301) [WID]
CHE 3560 _____ (3) Instrumental Method of Analysis (Pre: CHE 3301; Co: 3561)
CHE 3561 _____ (3) Instrumental Method of Analysis Lab (Co: CHE 3560)
CHE 4620 _____ (4) Environmental Chemistry (Pre: CHE 3301, 3560, STT 2810)

Geophysical Sciences
GHY 3310 _____ (3) Environmental Remote Sensing
GLY 3150 _____ (3) Principles of Structural Geology & Tectonics (Pre: GLY 2250, 2745)
GLY 3333 _____ (4) Geomorphology (Pre: 6 s.h. GLY)
GLY 3530-49 _____ (3) Selected Topics: Geochronology
GLY 3800 _____ (3) Introduction to Stratigraphy & Sedimentation (Pre: GLY 1102, 2250)
GLY 4705 _____ (3) Advanced Environmental & Engineering Geology (Pre: Jr. standing, 6 s.h. GLY)
PHY/GHY 3160 _____ (3) Introduction to Geophysics (Pre or Co: GLY 1101; PHY 1103 or 1150; MAT 1110)
PHY 3150 _____ (3) Physical Principles of Meteorology (Pre: 3 s.h. CHE/PHY/weather/climate)
PHY 3230 _____ (3) Thermal Physics (Pre: PHY 1104/1151; MAT 2130)
PHY 3850 _____ (3) Environucleonics (Pre: PHY 1104 or 1151)
PHY 3851 _____ (1) Environucleonics Lab (Pre or Co: PHY 3850)
PHY 4020 _____ (3) Computational Methods in Physics & Engineering (Pre: PHY 210; MAT 2130)
PHY 4330 _____ (3) Digital Electronics
PHY 4730 _____ (3) Analog Systems (Pre: PHY 3210)

Biology (Pre: BIO 1801 for all BIO courses 2000 or above)
BIO 3304 _____ (3) Systematic Botany (Co: BIO 2000) BIO 3310 _____ (4) Marine Sciences
BIO 3320 _____ (3) Air Pollution Effects on Plants & People BIO 3530-49 _____ (3) Selected Topics: Environmental Toxicology
BIO 3530-49 _____ (3) Selected Topics: Environmental Microbiology BIO 3530-49 _____ (3) Selected Topics: Soils
BIO 4555 _____ (4) Plant Physiology (Pre: CHE 1102/1120) BIO 4559, BIO 4560, BIO 4567
BIO 4571 _____ (4) Plant-Insect Interactions in Terrestrial Ecosystems

Students may take up to two organismal biology courses from the following list: BIO 4551, BIO 4552, BIO 4556, BIO 4557, BIO 4558,

D. Science Electives: 3 semester hours

E. Environmental Science Capstone Course: 3 semester hours
ENV 4100 _____ (3) Environmental Sci Seminar [CAP] (Pre: Sr. standing)

III. MINOR (optional)

IV. ELECTIVES (taken to a minimum of 123 hours for the degree) 123
2 semester hours of free electives must be outside the major discipline