

College of Agriculture and Life Science – School of Plant and Environmental Sciences  
Bachelor of Science in Environmental Science – Major in Ecological Restoration  
For Students Entering under UG Catalog 2023-2024

**Pathways to General Education (44-47 credits)**

**1. Discourse**

- \_\_\_ (3, foundational) ENGL 1105: First-Year Writing  
\_\_\_ (3, foundational) ENGL 1106: First-Year Writing  
\_\_\_ (3, advanced/applied)

**2. Critical Thinking in the Humanities**

- \_\_\_ (3) \_\_\_\_\_  
\_\_\_ (3) \_\_\_\_\_

**3. Reasoning in the Social Sciences**

- \_\_\_ (3) AAEC 1005: Economics of the Food and Fiber System or ECON  
2005: Principles of Economics  
\_\_\_ (3) \_\_\_\_\_

**4. Reasoning in the Natural Sciences**

- \_\_\_ (3) CHEM 1035: General Chemistry  
\_\_\_ (1) CHEM 1045: General Chemistry Laboratory  
\_\_\_ (3) CHEM 1036: General Chemistry  
\_\_\_ (1) CHEM 1046: General Chemistry Laboratory

**5. Quantitative and Computational Thinking**

- \_\_\_ (3, foundational) - MATH 1025: Elementary Calculus  
\_\_\_ (3, foundational) - MATH 1026: Elementary Calculus  
\_\_\_ (3, advanced) - STAT 3615: Biological Statistics

**6. Critique and Practice in Design and the Arts**

- \_\_\_ (3, design) \_\_\_\_\_  
\_\_\_ (3, arts) \_\_\_\_\_

**7. Critical Analysis of Identity and Equity in the United States**

- (may be double-counted with another core concept)  
\_\_\_ (3) \_\_\_\_\_

**Common Degree Core Requirements (20 credits)**

- \_\_\_ (1) ALS 1234 or SPES 1004: First Year Seminar  
\_\_\_ (3) BIOL 1105: Principles of Biology  
\_\_\_ (3) BIOL 1106: Principles of Biology  
\_\_\_ (3) CSES 3114 or GEOS 3614: Soils  
\_\_\_ (1) CSES 3124 or GEOS 3624: Soils Laboratory  
\_\_\_ (3) ENSC 3604: Fundamentals of Environmental Science  
\_\_\_ (3) GEOG 2084: Principles of GIS or GEOG/GOES 4354: Introduction  
to Remote Sensing or FREC 4114: Info Tech Natl Resource Mgt  
\_\_\_ (3) GEOS 1004: Introduction to Earth Science or GEOS 2104:  
Elements of Geology

**Major Requirements for Ecological Restoration (21 credits)**

- \_\_\_ (3) BIOL/HORT 2304: Plant Biology  
\_\_\_ (3) BIOL 2804: Ecology\*  
\_\_\_ (3) BIOL 3204: Plant Taxonomy\*  
\_\_\_ (3) ENSC 4244: Ecological Restoration\*  
\_\_\_ (3) ENSC 3644: Plants for Environmental Restoration\*  
\_\_\_ (3) ENSC 4774: Reclamation of Disturbed Lands  
\_\_\_ (3) PPWS 4604: Biological Invasions\*

**Ecology Restricted Electives (choose 9 credits†)**

- \_\_\_ (3) ALS 3404: Ecological Agriculture  
\_\_\_ (3) BIOL 4004: Freshwater Ecology  
\_\_\_ (3) BIOL 4114: Global Change Ecology\*  
\_\_\_ (3) CSES/FREC 4334: Agroforestry  
\_\_\_ (3) CSES 4544: Forage Crop Ecology  
\_\_\_ (3) FIW 4614: Fish Ecology\*  
\_\_\_ (3) FIW 4624: Marine Ecology  
\_\_\_ (3) FREC 2004: Forest Ecosystems  
\_\_\_ (3) FREC 2114: Ecology of Appalachian Forests

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**Plant and Soil Sciences Restricted Electives (choose 6 credits)**

- \_\_\_ (3) HORT 2244: Plant Propagation
- \_\_\_ (3) HORT 3324: Herbaceous Landscape Plants
- \_\_\_ (3) CSES 4064: Soil Microbiology\*
- \_\_\_ (3) CSES 4174: Soil Evaluation and Sampling\*
- \_\_\_ (3) CSES 4214: Soil Fertility and Management\*
- \_\_\_ (3) CSES 4854: Wetlands Soils and Mitigation\*

**Human Dimensions Restricted Elective (choose 3 credits)**

- \_\_\_ (3) AAEC 3314: Environmental Law\*
- \_\_\_ (3) AAEC 3324: Environmental Sustain Dev Econ\*
- \_\_\_ (3) ALCE 4304: Community Education & Development\*
- \_\_\_ (3) UAP/PSCI 3344: Global Environmental Issues
- \_\_\_ (3) UAP 3354: Environmental Policy & Planning
- \_\_\_ (3) UAP 4344: Law of Critical Environmental Areas

**Restricted Electives (choose 12 credits)**

- \_\_\_ (3) BIOL 2504: General Zoology \*
- \_\_\_ (3) BIOL 2704: Evolutionary Biology\*
- \_\_\_ (3) ENSC/BIOL 4164: Environmental Microbiology\*
- \_\_\_ (3) CSES 3614: Soil Physical & Hydrological Properties\*
- \_\_\_ (3) ENSC/CHEM 4734: Environmental Soil Chemistry\*
- \_\_\_ (3) ENSC 4414: Monitoring & Analysis of the Environment\*
- \_\_\_ (3) FIW 2114: Principles of Fish and Wildlife Conservation
- \_\_\_ (3) FIW 2314: Wildlife Biology\*
- \_\_\_ (3) FIW 2324: Wildlife Field Biology\*
- \_\_\_ (3) FIW 4534: Ecology & Management of Wetland Systems\*
- \_\_\_ (3) FIW 4114: Biodiversity Conservation\*
- \_\_\_ (3) GEOG/WATR 2004: Water, Environment & Society
- \_\_\_ (3) GEOG 3104: Environmental Problems, Population & Develop
- \_\_\_ (3) GEOG/GEOS 4084: Modeling with GIS\*
- \_\_\_ (3) GEOG 4314: Analysis in GIS\*
- \_\_\_ (3) HORT 2134: Plants & Greenspaces in Urban Communities
- \_\_\_ (3) HORT 3325: Woody Landscape Plants

- \_\_\_ (3) HORT 3326: Woody Landscape Plants
- \_\_\_ (3) UAP 4374: Land Use and Environmental Policy & Planning\*
- \_\_\_ (1-3) SPES 4964, 4974, 4994, or 3954: Field Study, Independent Study, Undergraduate Research, Study Abroad (only up to 3 credits total)

**Free Electives (number needed to complete 120 credits)**

- \_\_\_ ( ) \_\_\_\_\_
- \_\_\_ ( ) \_\_\_\_\_
- \_\_\_ ( ) \_\_\_\_\_

**Notes:**

- Total Hours Required: 120
- GPA Requirements:
  - Overall GPA: 2.0 each semester
  - In-major GPA: 2.0 By Graduation
    - Includes classes in: BIOL, CHEM, CSES, ENSC, FREC, GEOS, PHYS
  - Pass CHEM 1035 and 1036 with grade of C- or better
- Upon having attempted 60 semester credits (including transfer, advanced placement, advanced standing and credit by examination), satisfactory progress toward a B.S. degree in ENSC will include passing the following:
  - At least 24 credits that apply to the Pathways of General Education
  - BIOL 1105, 1106, CSES/ENSC 3114, 3124, ENSC 3604, SPES 1004 or ALS 124 and
  - 8 credits of CHEM with 6 credits of MATH and/or STAT
- Language Study Requirement: a sequence of two foreign language courses is required or equivalent transfer/high school credit (6cr.)
- \*Some courses listed on the checklist may have prerequisites; please consult the University Course Catalog or check with your advisor.