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

1. **Discourse**
   - (3, foundational) ENGL 1105: First-Year Writing
   - (3, foundational) ENGL 1106: First-Year Writing

2. **Critical Thinking in the Humanities**
   - (3)

3. **Reasoning in the Social Sciences**
   - (3) AAEC 1005: Economics of the Food and Fiber System or ECON 2005: Principles of Economics

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
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

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

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

Notes:
• Total Hours Required: 120
• GPA Requirements:
  o Overall GPA: 2.0 each semester
  o In-major GPA: 2.0 By Graduation
    □ Includes classes in: BIOL, CHEM, CSES, ENSC, FREC, GEOS, PHYS
  o 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:
  o At least 24 credits that apply to the Pathways of General Education
  o BIOL 1105, 1106, CSES/ENSC 3114, 3124, ENSC 3604, SPES 1004 or ALS 124 and
  o 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 checksheet may have prerequisites; please consult the University Course Catalog or check with your advisor.