

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 2022-2023

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

**1. Discourse**

- \_\_\_ (3, foundational) ENGL 1105: First-Year Writing – F, S  
 \_\_\_ (3, foundational) ENGL 1106: First-Year Writing – F, S, SI, SII  
 \_\_\_ (3, advanced/applied) \_\_\_\_\_ – F, S, W, SI, SII

**2. Critical Thinking in the Humanities**

- \_\_\_ (3) \_\_\_\_\_ - F, S, W, SI, SII  
 \_\_\_ (3) \_\_\_\_\_ - F, S, W, SI, SII

**3. Reasoning in the Social Sciences**

- \_\_\_ (3) AAEC 1005: Economics of the Food and Fiber System or ECON  
 2005: Principles of Economics – F, S  
 \_\_\_ (3) \_\_\_\_\_ - F, S, W, SI, SII

**4. Reasoning in the Natural Sciences**

- \_\_\_ (3) \*CHEM 1035: General Chemistry – F, S, SI, SII  
 \_\_\_ (1) \*CHEM 1045: General Chemistry Laboratory – F, S, SI, SII  
 \_\_\_ (3) \*CHEM 1036: General Chemistry – F, S, SI, SII  
 \_\_\_ (1) \*CHEM 1046: General Chemistry Laboratory – S, SI, SII

**5. Quantitative and Computational Thinking**

- \_\_\_ (3, foundational) - MATH 1025: Elementary Calculus – F, S, SI, SII  
 \_\_\_ (3, foundational) - \*MATH 1026: Elementary Calculus – F, S, SII  
 \_\_\_ (3, advanced) - \*STAT 3615: Biological Statistics – F, S, SI, SII

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

- \_\_\_ (3, design) \_\_\_\_\_ - F, S, W, SI, SII  
 \_\_\_ (3, arts) \_\_\_\_\_ - F, S, W, SI, SII

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

- (may be double-counted with another core concept)  
 \_\_\_ (3) \_\_\_\_\_ - F, S, W, SI, SII

**Common Degree Core Requirements (20)**

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

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

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

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

- \_\_\_ (3) ALS 3404: Ecological Agriculture – F  
 \_\_\_ (3) \*BIOL 4004: Freshwater Ecology – F  
 \_\_\_ (3) BIOL 4114: Global Change Ecology\*  
 \_\_\_ (3) CSES/FREC 4334: Agroforestry - F  
 \_\_\_ (3) \*CSES/ENSC 4764: Bioremediation - F  
 \_\_\_ (3) \* CSES 4544: Forage Crop Ecology- S  
 \_\_\_ (3) HORT/FREC 2134: Plants & Greenspaces for Urban Communities–F

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

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

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

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

**Restricted Electives (choose 12 credits)**

- \_\_\_ (3) \*BIOL 2504: General Zoology \*- S
- \_\_\_ (3) \*CSES/ENSC/BIOL 4164: Environmental Microbiology – S
- \_\_\_ (3) \*CSES/ENSC 3614: Soil Physical & Hydrological Properties – S
- \_\_\_ (3) \*CSES/ENSC/CHEM 4734: Environmental Soil Chemistry – S
- \_\_\_ (3) \*ENSC 4414: Monitoring & Analysis of the Environment – S
- \_\_\_ (3) \*CSES/ENSC 4314: Water Quality - S
- \_\_\_ (3) FIW 2314: Wildlife Biology - S
- \_\_\_ (3) FIW 2324: Wildlife Field Biology – F, S
- \_\_\_ (3) \* FIW 4534: Ecology & Management of Wetland Systems – F
- \_\_\_ (3) \*FIW 4114: Biodiversity Conservation
- \_\_\_ (3) GEOG/WATR 2004: Water, Environment & Society - F
- \_\_\_ (3) GEOG 3104: Environmental Problems, Population & Develop - S
- \_\_\_ (3) \*GEOG/GEOS 4084: Modeling with GIS – F, S
- \_\_\_ (3) \*GEOG 4314: Analysis in GIS – S
- \_\_\_ (3) HORT/FREC 2134: Plants & Greenspaces in Urban Communities – F
- \_\_\_ (3) HORT 3325: Woody Landscape Plants - F
- \_\_\_ (3) HORT 3326: Woody Landscape Plants - S
- \_\_\_ (3) \*UAP 4374: Land Use and Environmental Policy & Planning – F

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

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**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 checksheet may have prerequisites or corequisites; please consult the University Course Catalog or check with your advisor.
- F (fall), S (spring), W (winter), SI (summer I), and SII (summer II) indicate the term a course is offered. Course offerings are subject to change