SCHOOL OF NATURAL RESOURCES

Environmental Restoration

Imagine exploring how our environment is impacted by population changes, pollutants, rainfall or natural disasters! Plus, create solutions when these factors have damaging effects.

Make an appointment with one of our faculty or recruiter to learn more about options in our environmental restoration science major.

Contact Information

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| snr.unl.edu |

Career Path

Environmental Scientist, Geologist, Hydrogeologist, Environmental Chemist, Wetlands Scientist, Private Industry Consultant

Special Emphasis Courses

Water Science, Hydrology, Limnology, Soil Science, toxins in the Environment, Remediating Contaminants in Soil and Water

Internships Available

Environmental Engineering Firms, U.S. Bureau of Land Management, U.S. Geological Survey, U.S. Department of Agriculture Natural Resources Conservation Service, U.S. Environmental Protections Agency, U.S. Forest Service, Soil and Water Conservation Districts

University of Nebraska Lincoln

COLLEGE OF AGRICULTURAL SCIENCES AND NATURAL RESOURCES

Environmental Restoration Science

Environmental restoration initiates or accelerates the recovery of an ecosystem that has been degraded, damaged, or contaminated from human activity or natural agents. Students interested in this major will receive a variety of classroom and field experiences to help them develop the skills needed to become environmental scientists. Environmental restoration begins with a thorough understanding of the soil-water environment, environmental regulations, toxicology, environmental sampling, and restoration techniques. Students interested in Environmental Restoration Science must declare an option and can choose between either the Soil Science Option or Lake and Stream Restoration Option.

Soil Science Option

This option provides students an understanding of soil as a natural resource and as a component of all terrestrial ecosystems. The student will learn how soils influence ecological processes which take place above and below ground. An understanding of these processes will enable the student to deal with environmental management problems such as groundwater protection, natural resource management, urban and rural development issues, waste management, and pollution abatement. Careers focus on environmental assessment, soil conservation, and remediation of soil contamination. Students interested in preparing for graduate work in soils can aim toward a variety of special areas including soil microbiology, chemistry, physics, mineralogy, and morphology.

Lake and Stream Restoration Option

This option is designed for students considering careers in water quality, aquatic ecology, or limnology. The student will learn the important biotic, physical and chemical processes that occur within lakes and streams and be prepared to environmentally manage problems related to water quality. Students will also be prepared to implement pollution abatement procedures or management practices associated with lake and stream restoration. Careers focus on environmental assessment, water conservation, remediation of lakes and streams. Completion of this program also provides excellent preparation for graduate study.

Environmental Restoration Science Major Requirements
2016-2017 Required Courses (120 Credit Hours)
UNL College of Agricultural Sciences and Natural Resources

NATURAL RESOURCES — 16 credit hours

SCIL 101 Science and Decision Making for a Complex World	3
NRES 220 Principles of Ecology	3
NRES 312 Introduction to Geospatial Information Sciences	3
ENSC 220 Introduction to Energy Systems	3
SOIL 153 Soil Resources	4

NATURAL SCIENCES (ACE 4)

Biology — 4 credit hours

BIOS 101 & BIOS 101L General Biology & Lab	4
LIFE 120 & LIFE 120L Fundamentals of Biology I & Lab	4

PHYSICAL SCIENCES

Chemistry — 8 credit hours

CHEM 109 General Chemistry I	4
CHEM 110 General Chemistry II	4

Physics — 4-5 credit hours

PHYS 141 Elementary General Physics I	5
PHYS 151 Elements of Physics	4
PHYS 211 General Physics I	4
MSYM 109 Physical Principles in Agriculture & Life Sciences	4

MATHMATICS

Math

MATH 102, MATH 103 (Only 2 cr hours of MATH 103 apply to requirement), MATH 104 or MATH 106	2-5

Statistics

STAT 218 Introduction to Statistics (ACE 3)	3

ECONOMICS, HUMANITIES AND SOCIAL SCIENCES

Economics — 3 credit hours

ECON200, ECON 211, ECON212, ECON 212, AECN 141	3

ACE Courses — 12 credit hours

ACE outcomes 5, 7, 8, and 9

COMMUNICATIONS

Written Communication — 3 credit hours

ENGL 150, ENGL 151, ENGL 254, JGEN 120, JGEN 200, JGEN 300	3

Oral Communication — 3 credit hours

ALEC 102, COMM 101, COMM 209, COMM 210, COMM 215, COMM 283, COMM 286, MRKT 257, NRES 260, TMFD 121	3

Communications and Interpersonal Skills — 3 credit hours

ALEC 102, COMM 101, COMM 209, COMM 210, COMM 212, COMM 215, COMM 286, ENGL 150, ENGL 151, ENGL 252, ENGL 253, ENGL 254, JGEN 120, JGEN 200, JGEN 300, MRKT 257, NRES 260, TMFD 121	3

SENIOR THESIS — 3-4 credit hours

ENVR 499A Environmental Studies Senior Thesis I & ENVR 499B Environmental Studies Senior Thesis II	3
ENVR 499H Honors: Environmental Studies Senior Thesis I & II	3
WATS 498A & WATS 498B Senior Project I & II (2 cr ea)	4

MAJOR REQUIREMENTS — 28-30 credit hours

NREE 357 Natural Resource & Environmental Law	3
WATS 281 Intro to Water Science	3
WATS 354 Soil Conservation & Watershed Management	3
WATS 361 Soils, Environment & Water Quality	3
NRES 300 Toxins in the Environment	2
NRES 453 Hydrology	3
NRES 459 Limnology	4
NRES 279 Soil Evaluation	1
NRES 319 & 320 Fundamentals of Environmental Sampling & Lab	3-4
Select one from the following list: NRES 108 Earth's Natural Resource Systems Laboratory, GEOL 106 Environmental Geology, GEOL 101 Physical Geology,GEOG 155 Elements of Physical Geology	3-4

Note: In addition to these requirements, students must select and meet the requirements of one of the options, depending on their needs and interests.