

ENVIRONMENTAL SOIL SCIENCE, MINOR

Requirements for a minor may be completed at any campus location offering the specified courses for the minor. Students may not change from a campus that offers their major to a campus that does not offer their major for the purpose of completing a minor.

Program Description

The Environmental Soil Science minor enables students to acquire scientific and field-related skills in preparation for environmental careers. Students learn to understand and apply soils and land use information in a wide variety of professional settings. The Environmental Soil Science minor will prepare students for jobs as professional soil scientists or for graduate studies in Soil Science and other interdisciplinary environmental sciences.

What is Environmental Soil Science?

Soil is a critical component of terrestrial ecosystems, enabling plant growth and production of food, feed, and fiber for Earth's human population. It also provides critical ecosystem services including water quantity and quality, carbon and nutrient cycling and retention, and habitat. Soil science is the systematic study of soil formation, distribution, and mapping; soil physical, chemical, and biological properties, processes and functions; and soil management, use, and restoration.

You Might Like This Program If...

- You are interested in sustainable production of food, feed, and fiber for Earth's rapidly increasing population.
- You are concerned about degradation of water quality and restoration of aquatic habitats.
- You are interested in restoration of soils that have been degraded by processes such as erosion, desertification, or salinization.
- You are concerned about management and preservation of natural areas and wildlife habitats.

Program Requirements

Requirement	Credits
Requirements for the Minor	18-19

Requirements for the Minor

A grade of C or better is required for all courses in the minor, as specified by Senate Policy 59-10 (<https://senate.psu.edu/policies-and-rules-for-undergraduate-students/59-00-minors-and-certificates/#59-10>). In addition, at least six credits of the minor must be unique from the prescribed courses required by a student's major(s).

Code	Title	Credits
Prescribed Courses		
<i>Prescribed Courses: Require a grade of C or better</i>		
SOILS 101	Introductory Soil Science	3
SOILS 102	Introductory Soil Science Laboratory	1
SOILS 403	Soil Morphology Practicum	2

Additional Courses

Additional Courses: Require a grade of C or better

In consultation with an Environmental Soil Science adviser, select 12-13 credits from the following (including at least 6 credits at the 400-level):

SOILS courses	
ASM 327	Soil and Water Resource Management
CE 335	Engineering Mechanics of Soils
ERM 433	Transformation of Pollutants in Soils
ERM 440	Chemistry of the Environment: Air, Water, and Soil
FOR 475	Principles of Forest Soils Management
TURF 434	Turfgrass Edaphology
TURF 435	Turfgrass Nutrition

Academic Advising

The objectives of the university's academic advising program are to help advisees identify and achieve their academic goals, to promote their intellectual discovery, and to encourage students to take advantage of both in-and out-of class educational opportunities in order that they become self-directed learners and decision makers.

Both advisers and advisees share responsibility for making the advising relationship succeed. By encouraging their advisees to become engaged in their education, to meet their educational goals, and to develop the habit of learning, advisers assume a significant educational role. The advisee's unit of enrollment will provide each advisee with a primary academic adviser, the information needed to plan the chosen program of study, and referrals to other specialized resources.

READ SENATE POLICY 32-00: ADVISING POLICY (<https://senate.psu.edu/policies-and-rules-for-undergraduate-students/32-00-advising-policy/>)

University Park

Daniel Johnson
Assistant Teaching Professor of Soil Science
418 Agricultural Sciences and Industries Building
University Park, PA 16802
814-867-0542
dkj5264@psu.edu

Career Paths

The Environmental Soil Science minor can help prepare students for jobs as professional soil scientists or for graduate studies in soil science and other interdisciplinary environmental sciences.

MORE INFORMATION ABOUT POTENTIAL CAREER OPTIONS FOR GRADUATES WITH A MINOR IN ENVIRONMENTAL SOIL SCIENCE (<https://www.soils.org>)

MORE INFORMATION ABOUT OPPORTUNITIES FOR GRADUATE STUDIES (<https://ecosystems.psu.edu/graduate/soil-science/>)

Contact

University Park

DEPARTMENT OF ECOSYSTEM SCIENCE AND MANAGEMENT
117 Forest Resources Building
University Park, PA 16802
814-865-7521

<https://ecosystems.psu.edu>