Proposed Minor in Soil Science

Description:

This minor will provide students with a sophisticated understanding of the soil resource, its development, characteristics, and principles for its use and management. Building on a basic introduction to the broad field of soil science, the program is completed by adding four or five upper division soils courses balanced between underlying principles and field applications.

All courses presented for the minor must be passed with a grade of C or better.

Declared majors in the Conservation of Soil Water and Environment Area of Concentration of NRSC or the Land and Water option in ENSP may not also minor in Soil Science.

Primary Sponsoring Unit:

Department of Natural Resource Sciences and Landscape Architecture (NRSL)

Faculty coordination of the minor:
Undergraduate Coordinator (Dr. Chris Walsh)
Soil Science Advisors (Dr. Ray Weil, Dr. Robert Hill)

Advising system for the minor:
The NRSL Department has mandatory faculty advising for each of its major and minor programs. Students are required to meet with their faculty advisor at least twice a year.

Curriculum:

NRSC 200 Fundamentals of Soil Science
Prerequisites: CHEM 131/132 (formerly CHEM103)
Credits: 4

Select 13 credits from the ten courses listed below. At least two courses must be from Group A.

Group A – Underlying Principles

NRSC 411 Principles of Soil Fertility
Prerequisites: NRSC 200 or equivalent
Credits: 3

NRSC 414 Soil Morphology, Genesis and Classification
Prerequisites: NRSC 200
Credits: 4

NRSC 417 Soil Hydrology and Physics
Prerequisites: NRSC 200 and a physics course
Credits: 3
NRSC 421 Soil Chemistry  
   Prerequisites: NRSC 200  
   Credits: 4

NRSC 422 Soil Microbiology  
   Prerequisites: NRSC 200 and CHEM 104 or permission of department  
   Credits: 3

Group B - Applications

NRSC 308 Field Soil Morphology  
   Prerequisites: Permission of department  
   Credits: 1

NRSC 413 Soil and Water Conservation  
   Prerequisites: NRSC 200  
   Credits: 3

NRSC 415 GIS Applications in Soil Science  
   Prerequisites: NRSC 200  
   Credits: 4

NRSC 423 Soil-Water Pollution  
   Prerequisites: NRSC 200 and CHEM 104 or permission of department  
   Credits: 3

NRSC 461 Wetland Soils  
   Prerequisites: NRSC 200  
   Credits: 3

Total Credits: A minimum of 17 credits is required to complete this minor.

Students attempting this minor will need a strong background in Chemistry and Math. There are a total of 17 required credits in NRSC classes, plus a 4 credit chemistry prerequisite. Depending on the pre-requisites needed and the optional courses selected and pre-requisites, students will take between 17 and 24 credits.

Target Population:

This minor is particularly relevant to students majoring in Agricultural and Resource Economics, Geology, Geography, Environmental Science and Policy, Biology, Biochemistry, Chemistry, Anthropology, Architecture, Agriculture Science and Technology, Horticulture and Crop Production, Animal Science, Landscape Architecture, Parks and Planning, Biological Resource Engineering, Civil Engineering, and Environmental Engineering.