

# Soil Science Concentration

Supporting Department: [Plant Science and Landscape Architecture](#)  
(College of Agriculture & Natural Resources)

## **Concentration objectives:**

The objective of this concentration is to provide the student with an understanding of soils as a fundamental part of both natural and managed ecosystems. This will involve the understanding of soils as natural bodies, as media for plant growth, as foundations for structures and other improvements, as filters for waste, and as they function within the hydrological cycle. Students will be expected to master the techniques required to classify soils and to develop an appreciation of the global diversity and distribution of soils. Essential to these goals will be the acquisition of an understanding of principles governing soil genesis. Developing an understanding of the physical processes that control the movement of fluids within a porous media and the chemical reactions that occur within and among the solid, liquid, and gaseous phases of soils will enable students to better understand the edaphic factors that control terrestrial ecosystems and the influence that soils have on groundwater, surface water, and aquatic ecosystems.

Contact the concentration advisor Dr. Cristian Schulthess ([C.Schulthess@uconn.edu](mailto:C.Schulthess@uconn.edu)) for more information.

## **Soil Science concentration required course work:**

### **Students must pass the following:**

SOIL 2120  
SOIL 2125  
SOIL 3410

Environmental Soil Science  
Soils Lab  
Soil Chemistry Components

### **Students must select an additional 2 courses from the following:**

CE 5090  
NRE 4165  
PLSC 3995  
PLSC 5420  
SOIL 3253

Advanced Topics in Civil Engineering  
Soil and Water Management and Engineering  
Special Topics  
Soil Chemistry Reactions and Equilibrium  
Soils, Environmental Quality, and Land Use