

ENVIRONMENTAL SOIL SCIENCE MINOR

Offered at: San Luis Obispo Campus

Students completing the minor gain skills in understanding and assessing the science and management of soils. Because soils are necessary for sustaining all living organisms, this minor is relevant to all students. Students will gain practical, meaningful, and hands-on experiences in both environmental and agricultural applications of the world's finite soil resources. This minor allows students the opportunity to relate their interests to the ecology, classification, mineralogy, chemistry, physics, and fertility/health parameters of soils.

Program Learning Objectives

1. Relate the fundamentals of soil science – emphasizing the physical, chemical, and biological properties of soils – to students' daily lives.
2. Distinguish and appreciate the integral nature of healthy soils to overall environmental health and sustainability.
3. Evaluate how soil forming factors influence the properties and management of a soil.
4. Classify and describe soils in the field and relate that information to land management considerations.

Minor Requirements and Curriculum

The minor must be completed prior to, or at the same time as, the requirements for the bachelor's degree. A major and a minor may not be taken in the same degree program, and a minor is not required for a degree. Requirements for the minor include:

- At least half of the units must be from upper-division courses (3000-4000 level).
- At least half of the units must be taken at Cal Poly (in residence).
- No more than one-third of the units will be taken with credit-no credit grading (CR/NC), not counting courses with mandatory CR/NC. Departments may further limit CR/NC grading if desired.
- A minimum 2.0 GPA is required in all units counted for completion of the minor.

Code	Title	Units
REQUIRED COURSES		
ERSC 3303	Soil Erosion and Water Conservation	3
GEOL 2240	Physical Geology	3-4
or SS 2221	Soil Health and Plant Nutrition	
SS 1120	Introductory Soil Science	4
SS 3321	Soil Morphology	4
Approved Electives		
Select from the following:		9
ERSC 4442	Applied Groundwater Hydrology	
ERSC 4443	Applied Environmental Contaminant Transport	
ERSC 4450	Geomorphology	
NR/SS 4421	Wetlands	
SS 4422	Soil Ecology	
SS 4423	Environmental Soil and Water Chemistry	
SS 4424	Environmental Soil Physics	
SS 4431	Spatial Data Analysis and Environmental Mapping	
SS 4440	Forest and Range Soils	
SS 4444	Soil Judging	
SS 4445	Advanced Soil Judging	
Total Units		23