

Agroecology, Horticulture and Environmental Quality

Soil & Land Resources Option

Why study soil and land resources?

Do you want to protect our environment and help ensure we use our lands and soils efficiently?

Are you interested in biology and in physical sciences like geology and physics?

Do you like working outdoors?

Would you like to do research using state-of-the-art equipment and facilities?

The **soil and land resources** degree prepares you for careers in environmental science or agriculture. You'll get a broad education in applied and fundamental areas of soil science, including soil formation and classification, chemistry, physics, microbiology, biochemistry, and nutrient management. You'll learn how to conserve soil and improve soil and water quality. Depending on your career goals, you'll be able to choose courses in geology, botany, forestry, microbiology, or engineering.

Program strengths/highlights

Idaho's vast natural resources provide students with unique research and internship opportunities. You will be able to do research in the field and in the laboratory, gaining hands-on experience and perhaps getting paid. In places where historically intense mining, agriculture, or urban growth threatens land and water resources, you will confront real-world issues and conflicts.

You will also have the chance to be an intern with a private company or a publicly funded agency. Many internships lead to permanent jobs after graduation.

Faculty and facilities

Soil science faculty members make it a priority to help each student prepare for the career of their choosing. Laboratories with sophisticated equipment, newly remodeled greenhouses, and field research sites are available for student research, coursework, and hands-on training.

Specialized clubs

The Soil Stewards club oversees the UI organic farm, growing produce and selling it through various outlets, including by subscription service. Club members learn first-hand about sustainable agriculture, organic farming, and product marketing. Members of the Soil & Site Evaluation Team develop field skills in describing soil and site characteristics. Many former team members have become field soil scientists.

Career opportunities

With a soil and land resources degree you can get a job right away or enter a graduate program in soil or environmental science. You'll find jobs in private companies and in government agencies such as the U.S. Environmental Protection Agency and the U.S. Department of Agriculture's Natural Resources Conservation Service and Forest Service. To improve your marketability, you can apply for certification as an Associate Professional Soil Scientist through the Federation of Certifying Boards in Agriculture, Biology, Earth, and Environmental Sciences (ARCPACS).

Environmental consultant—Work for a private firm with expertise in bioremediation, waste cleanup, hazardous waste management, water quality assessment and protection, or land-use planning.

Agriculture specialist—Assist growers in organic farming techniques, agrichemical use, nutrient recommendations, conservation tillage, or soil and water management.

Environmental quality specialist—Work for local, state, or federal agencies in jobs related to soil and water quality, regulatory procedures and enforcement, and public information.

Laboratory technician—Analyze environmental samples taken for use in research or regulatory assessment.

Field scientist—Collect information for land-use planning and soil characterization. Do fieldwork and present your data in comprehensive documents for distribution to the public.

Soil conservation technician—Assist government field office staff in a variety of assignments: provide soil and water conservation technical information to landowners; help landowners apply conservation practices; survey, design, and check common conservation practices.

“The PSES department is awesome because professors know you and care! At the same time, it's big enough to offer amazing opportunities and a variety of clubs to get involved in.” **Mary Barstow, crop science major**

University of Idaho

College of Agricultural and Life Sciences

www.cals.uidaho.edu/pses

Fall			Spring		
Freshman					
Engl 101	Intro. to College Writing	3	Engl 102	College Writing and Rhetoric	3
Chem 111	Principles of Chemistry I	4	Chem 112	Principles of Chemistry II	5
Comm 101	Fund. of Public Speaking	3	CS 112	Intro. to Problem Solving & Programming	3
CORE 103-149	Core Discovery	4			
PISc 102	Science of Plants in Ag.	3	Geol 101	Physical Geology & Lab	4
			CORE 153-199	Core Discovery	3
TOTAL		16	TOTAL		18
Sophomore					
Ent 322	Economic Entomology	3	Geog 385	GIS Primer	3
Soil 205/206	The Soil Ecosystem/Lab	4	Phys 112	General Physics II & Lab	4
Chem 275	Carbon Compounds	3	Math 160	Survey of Calculus	4
or Chem 277	Organic Chemistry	3	Elective	Core Cluster Course	3
Phys 111	General Physics I	4	Elective	Elective	3
Biol 115	Cells & Evolution of Life	4			
TOTAL		18	TOTAL		17
Junior					
PISc 438	Pesticides in the Environment	3	Soil 446	Soil Fertility	3
Soil 415	Soil and Environmental Physics	3	Soil 454	Soil Development & Classification	3
Biol 213	Principles of Biological Structure & Function	4	MMBB 250/251	General Microbiology/Lab	5
or PISc 205	General Botany	4	Elective	Core Cluster Course	3
Elective	Core Cluster Course	3	Elective	Elective	3
Elective	Elective	3			
TOTAL		16	TOTAL		17
Senior					
PISc 415	Plant Pathology	3	Soil 499	Directed Study Professional Certification	3
or Soil 425	Microbial Ecology	3			
Soil 437	Soil Biology	3	Soil 422	Environmental Soil Chemistry	3
Stat 251	Statistical Methods	3	Elective	Core Cluster Course	3
Engl 313	Business Writing	3	Elective	Electives	9
or Engl 317	Technical Writing	3			
Elective	Elective	3			
TOTAL		15	TOTAL		16

Note: Course offerings may change from year to year. Always check the current course catalog.

CREDITS MUST TOTAL 128 FOR DEGREE

To learn more
Call toll free 1.88.88.UIDAHO
<http://www.uidaho.edu>

Kim Nelson
Student Recruitment Coordinator
College of Agricultural and Life Sciences
208.885.7984 • kanelson@uidaho.edu
<http://www.cals.uidaho.edu>

Lisa Washburn
Department of Plant, Soil, and Entomological Sciences
208.885.6930 • lisaw@uidaho.edu
<http://www.cals.uidaho.edu/pses>