Program Overview

Our program offers a sound background in botany, soil science, geology, geospatial analysis, watershed, forestry, and other biological and physical sciences. Addition of two additional courses in botany can earn a minor in Botany. One additional soils course can qualify the Rangeland Resources student as a federal Soil Scientist. General education courses in behavioral and social sciences, plus the humanities, educate the student about the interaction of humans and the rangeland environment, emphasizing effective communication skills, conflict resolution and the attainment of common ground goals and objectives in the context of sustainability and adaptation to climate change.

Increasing interest and demand for sustainable food and fiber production and management of wildfire fuels requires thoughtful and informed management of rangelands. The rangeland specialist is the primary individual responsible for sustainable production and utilization of rangeland resources. Under California’s Forest Practice Rules, Certified Rangeland Managers (CRMs) are required to perform rangeland work on non-federal rangelands (with a few exceptions). Humboldt State University provides the comprehensive coursework required to qualify for this specialty license.

Why HSU?

Humboldt’s rural setting provides easy access to field sites for the study of soils in natural forests and on native rangelands. Laboratory and greenhouse facilities at the university, along with the field sites, provide an opportunity for specialized study in soil fertility, soil physics, soil microbiology, agroforestry, and forest and rangeland soil management, and in soil formation, description, and classification. HSU students who take the national Fundamentals of Soil Science exam have a high pass rate and routinely score higher than national averages.

For more information

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Bachelor of Science
Concentration available in:  
Wildland Soil Science

Master of Science
Natural Resources  
Forest, Watershed, and  
Wildland Sciences option

Minors
Rangeland Resource Science  
Wildland Soil Science

Related Careers
Agricultural Educator  
Agricultural Management Specialist  
Biological Technician  
Environmental Specialist  
Fish and Wildlife Officer (Game Warden)  
Lands Specialist  
Natural Resources Specialist  
Park Naturalist  
Park Ranger  
Ranch Manager  
Rangeland Consultant  
Rangeland Management Specialist  
Rangeland Scientist  
Rangeland Technician  
Realty Specialist  
Soil Conservationist  
Soil Scientist  
Soils Consultant  
Watershed Manager

Careers listed may require additional education. For more information about careers & employers, see the Rangeland Resource Science Career Guide.

Academic & Career Advising Center  
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2017-18 academic year
Wildland Soil Science Concentration

Work outdoors, manage for sustainable use of soils, and develop your career in a long established profession with authentic job potential. That’s what a degree in Rangeland Resource Science with a concentration in Wildland Soil Science will provide you.

All terrestrial life depends on resources provided by the soil, so the conservation and sustainable management of soil resources is essential to the welfare of humans and natural ecosystems. Major goals of the Wildland Soil Science concentration are to develop the ability to detect and analyze soil differences, to match land uses with soils capable of sustaining those uses, and to prescribe land management practices designed to enhance soil potentials or to minimize soil limitations. We emphasize erosion control, soil carbon sequestration, and management for soil quality and soil health.

Wildland soils are forested soils and rangeland soils that are not cultivated for the production of agricultural crops. Our soil science curriculum emphasizes “wildlands” applications of the principles of soil evaluation and management. Humboldt is in an excellent position to offer such a curriculum because of the concentration of highly-respected faculty expertise found at the university in such fields as forestry, rangeland management, watershed management, wildlife management, botany, geospatial analysis and geology, as well as in soil science itself. This gives students a chance to link their education in wildland soil science to a study of the management of other natural resources, such as forestlands and rangelands used for watersheds and in the production of forage for livestock, timber products, and wildlife.