

# MAJOR IN FOREST AND RANGELAND STEWARDSHIP

Forests and rangelands are always changing, sometimes very slowly as a result of long-term processes, followed by rapid changes as a result of fires, timber harvesting, or grazing. Rangelands occupy nearly fifty percent of the earth's land surface and consist of natural grasslands, savannas, shrublands, riparian areas, deserts, tundra, and coastal marshes. Sustaining forests and rangelands in the modern world requires managers who understand ecosystem changes, and how forests and rangelands connect to global, ecological, and social systems. State and federal land management agencies, private landowners, consultants, and conservation organizations employ graduates of the Forest and Rangeland Stewardship (FRS) major. The curriculum includes a balanced mix of courses in plant and animal biology, integrated resource management, and the physical sciences. Colorado is an ideal setting for the study of forestry and rangeland ecology and management with shortgrass steppe to the east and high elevation grasslands, forests, woodlands, and riparian areas to the west. Students learn about ecosystem productivity, policy, conservation, and the latest in computer-based management tools. Students also gain an understanding of economics related to recognizing alternatives and analytical and decision-making skills, as well as developing communication, political and interpersonal skills to make their education effective, and contribute to their respective fields fully upon graduation.

The forestry-specific concentrations within the FRS major are accredited by the Society of American Foresters, with curricula meeting the Office of Personnel Management (OPM) requirements for the forestry series (0460) and the forestry technician series (0462). The range-specific concentrations in the FRS major are accredited by the Society for Range Management and students generally meet the OPM requirements for the Rangeland Management Series (0454) and Soil Conservation Series (0457).

Students in the FRS major will gain an understanding of and learn how to manage the animal, soil, and vegetation resources on rangelands or in forests for state and federal land management agencies as well as a variety of private landowners and non-governmental agencies. With a few additional courses, graduates meet OPM requirements for the Ecology Series (0408). Students develop an in-depth understanding of basic plant and animal biology; a basic understanding of the physical sciences as they relate to rangeland ecology; and knowledge of important concepts of ecology and range management.

The FRS major includes summer field courses. All FRS students take a 4-week summer field course at the CSU Mountain Campus for field studies in forest and rangeland ecology and management, wildlife, watershed and human dimensions of natural resources. Students in the forestry concentrations take another 2-week summer field course at the Mountain Campus that focuses on forestry field measurements. Students in the rangeland concentrations take a 1-week summer field course focused on rangeland inventory and assessment that is normally held in shortgrass steppe or foothills rangelands close to Fort Collins.

Careers in forestry and natural resources are exceptionally varied, challenging, and personally satisfying. Opportunities are available in rural and urban settings worldwide. Positions are available in industry, education, consulting, public service, and government agencies. Some examples of career opportunities include, but are not limited to: forest manager, forest/park ranger, environmental policy and conservation

consultant, fire fighter/manager, natural resource journalist, naturalist, land use planner, geospatial information systems specialist, forest products business person, researcher/professor.

Examples of career opportunities in range management include, but are not limited to restoration ecologist, rangeland scientist, rangeland management specialist, soil conservationist, soil scientist, rangeland conservationist, plant ecologist, riparian ecologist, ranch manager, researcher, commercial sales and service representative, consultants, mine rehabilitation specialist, real estate/land manager, and international rangeland specialist.

## Concentrations

- Major in Forest and Rangeland Stewardship, Forest Biology Concentration (<http://catalog.colostate.edu/general-catalog/colleges/natural-resources/forest-rangeland-stewardship/forest-rangeland-stewardship-major/forest-biology-concentration/>)
- Major in Forest and Rangeland Stewardship, Forest Fire Science Concentration (<http://catalog.colostate.edu/general-catalog/colleges/natural-resources/forest-rangeland-stewardship/forest-rangeland-stewardship-major/forest-fire-science-concentration/>)
- Major in Forest and Rangeland Stewardship, Forest Management Concentration (<http://catalog.colostate.edu/general-catalog/colleges/natural-resources/forest-rangeland-stewardship/forest-rangeland-stewardship-major/forest-management-concentration/>)
- Major in Forest and Rangeland Stewardship, Rangeland and Forest Management Concentration (<http://catalog.colostate.edu/general-catalog/colleges/natural-resources/forest-rangeland-stewardship/forest-rangeland-stewardship-major/rangeland-forest-management-concentration/>)
- Major in Forest and Rangeland Stewardship, Rangeland Conservation and Management Concentration (<http://catalog.colostate.edu/general-catalog/colleges/natural-resources/forest-rangeland-stewardship/forest-rangeland-stewardship-major/rangeland-conservation-management-concentration/>)