

PH.D. IN ECOSYSTEM SUSTAINABILITY

Many physical, ecological, and social factors interact to shape the future of our ecosystems and societies. CSU's innovative Ph.D. in Ecosystem Sustainability enables students to develop core competencies in ecosystem science—the study of organisms and the environment—and apply that knowledge to address real-world issues. We help develop leaders in sustainability science: a new generation of practitioners able to address complex, integrated social-ecological problems in collaborative partnerships with researchers, resource users, and decision-makers.

Our graduates have the tools to understand complex scientific questions in sustainability, and the leadership and collaborative skills required to address current and future issues in sustainability. The program serves as a foundation for a wide range of careers, including academic and scholarly professions, and work in government agencies, non-governmental organizations, and corporate and entrepreneurial environments.

A focus on solutions

Students work at the cutting edge of new research on ecosystem sustainability. Collaborating with some of the world's leading ecosystem and sustainability scientists, students explore solutions to global problems related to water and natural resources, food supplies, energy, greenhouse gas management, land-use change, climate change, and environmental justice, among others.

Learning Objectives

Upon successful completion, students will have:

1. Detailed knowledge of quantitative and qualitative methods.
2. Understanding of complex ecosystem functioning.
3. Transdisciplinary understanding of social-ecological processes.
4. Ability to work in teams across disciplines and with decision-makers, resource users, and team members outside of academia.
5. Skills to conduct integrated assessments using systems approaches, conceptual, mathematical, geospatial, and statistical models, and innovative collaborative processes.
6. Ability to apply critical thinking in the development of sustainable systems at local and global scales.
7. Advanced training in the methods of urban ecology and on managing the sustainable cities of the future.

Local and Global Relevance

Our graduate community benefits from a highly networked program with close working links to the city governments of Fort Collins, Boulder, and Denver, and to local agencies, farming communities, and non-profits across the Front Range. We work at the highest elevations of the Rockies, in the lowest short grass steppe regions, in cities, and in neighborhoods. Our active research programs are spread around the globe: from northern, eastern, and southern Africa to China, Mongolia, Nepal, Tibet, Honduras, and Mexico.

[Students interested in graduate work should refer to the Graduate and Professional Bulletin.](#)