

PH.D. IN ECOLOGY

Graduate Degree Program in Ecology

Ruth Hufbauer, Director

Dawn Koschnitzki, Program Coordinator

Johnson Hall 102

Phone: 970-491-4373

[ecology.colostate.edu \(https://ecology.colostate.edu/\)](https://ecology.colostate.edu/)

The Graduate Degree Program in Ecology (GDPE) offers outstanding opportunities for graduate studies ecology. The overall objective of the PhD in Ecology program is to develop students as scientists and policy makers with interdisciplinary problem-solving skills to address global challenges in the ecological sciences from local to global scales. Students in the PhD program engage in independent and collaborative research guided by advisors in the program.

Program Learning Objectives

Students who earn a Ph.D. must demonstrate significant intellectual achievement, scholarly ability, and breadth of knowledge. Successful students in this Ph.D. program demonstrate the following:

1. Mastery of concepts and principles of ecology and working knowledge of relevant basic biology and quantitative methods, achieved through required and elective coursework;
2. Ability to critically review and interpret scientific information and originality in integrating that information to design ecological research. This is assessed through the research proposal and written and oral components of the Ph.D. preliminary examination;
3. Understanding and practice of research ethics, collaborative approaches, and broader issues related to social responsibility through coursework and research projects;
4. Proficiency in (1) written communication shown in the research proposal, dissertation and, ideally, peer-reviewed research articles and (2) oral communication shown in presentations at professional conferences or in the classroom, and the dissertation seminar.

Institutional Learning Objectives

These Program Learning Objectives relate to the CSU's Institutional Learning Objectives (Reasoning, Communication, Responsibility and Creativity) in several ways:

1. The first learning objective, focused mastery of concepts and principles of ecology gained through required and elective courses, develops Reasoning, Communication and Responsibility. For example, coursework fosters analytic skills and the ability to ask effective questions and using new knowledge or integrating across knowledge bases to develop innovative solutions to address societal challenges, as well as communicating scientific understanding.
2. The second learning objective, focused on understanding different ideas and diverse viewpoints, relates to Creativity, Reasoning, and Responsibility. For example, placing work into broad context includes development and application of logic, and understanding the diversity of human experiences.
3. The third learning objective, focused on ethics and collaboration, directly supports Reasoning, Responsibility and Collaboration, supporting student development on key aspects of working ethically within and for our diverse society.

4. Finally, the fourth learning objective, focuses on Communication, both written and oral.

Students interested in graduate work should refer to the Graduate and Professional Bulletin (<http://catalog.colostate.edu/general-catalog/graduate-bulletin/>) or visit the Graduate Degree Program in Ecology (<https://ecology.colostate.edu/>) website for more information.