

MASTER OF SCIENCE IN ECOLOGY

Graduate Degree Program in Ecology

Ruth Hufbauer, Director

Johnson Hall 102

Phone: 970-491-4373

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 M.S. in Ecology is to develop students to be science professionals who use their interdisciplinary problem-solving skills to address ecological challenges from local to global scales. Students enrolled in the Plan A (thesis option) program are engaged in independent and collaborative research guided by advisors in the program and aim to have their thesis work published in the peer-reviewed literature. The Plan B option provides a non-thesis alternative available upon special request.

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.

Program Learning Objectives

The GDPE offers a thesis-based M.S. program (Plan A) that enables graduates to continue their education at the Ph.D. level or to seek employment in a wide range of careers including state and federal positions, non-profit organizations and environmental consulting.

The GDPE also offers a professional M.S. program (Plan B). This non-thesis-based degree focuses on coursework and a professional paper.

Successful graduates of the MS program demonstrate the following:

1. Broad knowledge of the fundamental areas of ecology as well as relevant basic biology and quantitative methods, achieved through required and elective coursework;
2. Ability to discriminate important and relevant ideas and facts and to place their work in a wide ecological context that incorporates diverse viewpoints;
3. Understanding and practice of research ethics, collaborative approaches, and broader issues related to social responsibility through coursework and research projects;
4. Proficiency in written communication as shown in the research proposal and thesis (Plan A), the professional paper (Plan B), and in oral communication as shown in presentations.

Institutional Learning Objectives

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

The first learning objective, focused on required and elective courses, develops Reasoning, Communication and Responsibility. For example, coursework addresses 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.

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.

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.

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