

NATURAL RESOURCES (PHD)

Graduate School

Program Website (<https://cals.cornell.edu/natural-resources-environment/degrees-programs/graduate/>)

CIP: 03.0101 | HEGIS: 0115.00 | NYSED: 78271

Graduate Field

Natural Resources and the Environment (<https://catalog.cornell.edu/graduate-school/natural-resources-environment/>)

Program Description

Students develop transdisciplinary knowledge and research and practical skills necessary to manage natural resources and the environment.

The M.S. and Ph.D. programs emphasize research and require a thesis or dissertation. Students often obtain the M.S. degree before entering the Ph.D. program. A Master of Professional Studies (MPS) degree focuses on course work and a professional project.

In collaboration with their faculty advisor and graduate committee members, students design a graduate program that addresses their individual interests. Students may conduct research in the US or internationally and have access to excellent laboratory and field facilities.

The M.S and Ph.D. programs in Natural Resources and the Environment are designed to enable students to meet their research and professional goals. Students work with faculty advisors to identify courses and to define a research or professional project. To be admitted to the M.S. or Ph.D. program, the student must identify a faculty member who expresses interest in supervising them prior to admission. Therefore, it is critical that prospective MS or PhD students correspond with potential faculty advisors during the application process.

Concentrations

- Applied ecology
- Community-based natural resources management
- Conservation biology
- Ecosystem biology and biogeochemistry
- Fishery and aquatic science
- Forest science
- Human dimensions of natural resources management
- Policy and institutional analysis
- Program development and evaluation
- Quantitative ecology
- Risk analysis and management
- Wildlife science

Program Information

- Instruction Mode: In Person
- Location: Ithaca, NY
- Minimum Credits for Degree: 72

Program Requirements

- Minimum Semesters for Degree: 6

Graduate School Milestones

- Responsible Conduct of Research Training: Required
- Open Researcher and Contributor ID (ORCID): Required
- Student Progress Reviews (SPR) begin: Second Year
- Examination for admission to candidacy (A Exam): Before seventh semester begins
- Defense of Dissertation (B Exam): Before the fourteenth semester and two semesters after the A Exam

Field Specific Milestones

- Special Committee requires four members
- Field progress review conducted first year
- Masters Exam (M Exam): Before fourth year; a Non-Thesis Masters may be conferred
- Public seminar presented within the semester of the B Exam

Course Requirements

- Course requirements are determined by the student's Special Committee.
- Enrollment in a GRAD research course or the equivalent field specific research course is expected of all students.

University Graduation Requirements Requirements for All Students

In order to receive a Cornell degree, a student must satisfy academic and non-academic requirements.

Academic Requirements

A student's college determines degree requirements such as residency, number of credits, distribution of credits, and grade averages. It is the student's responsibility to be aware of the specific major, degree, distribution, college, and graduation requirements for completing their chosen program of study. See the individual requirements listed by each college or school or contact the college registrar's office (<https://registrar.cornell.edu/service-resources/college-registrar-directory/>) for more information.

Non-academic Requirements

Conduct Matters. Students must satisfy any outstanding sanctions, penalties or remedies imposed or agreed to under the Student Code of Conduct (Code) or Policy 6.4. Where a formal complaint under the Code or Policy 6.4 is pending, the University will withhold awarding a degree otherwise earned until the adjudication process set forth in those procedures is complete, including the satisfaction of any sanctions, penalties or remedies imposed.

Financial Obligations. Outstanding financial obligations will not impact the awarding of a degree otherwise earned or a student's ability to access their official transcript. However, the University may withhold issuing a diploma until any outstanding financial obligations owing to the University are satisfied.

Learning Outcomes

Candidates for a Ph.D degree in Natural Resources and the Environment demonstrate a broad based knowledge in Natural Resources Management and a mastery of knowledge in one of the field's sub-disciplines. Furthermore, Ph.D candidates demonstrate an ability to

create new knowledge, and make an original and substantial contribution in a focal sub-discipline in an appropriate timeframe.

Ph.D Degree Proficiencies

- Demonstrate broad-based knowledge in the discipline of Natural Resources Management.
- Make an original research contribution that contributes to environmental or natural resource management practice.
- Make an original and substantive research contribution to one of the sub-disciplines represented by concentrations in the Field of Natural Resources:
 - Think originally and independently to develop new knowledge, concepts and methods in this sub-discipline.
 - Identify new research questions in this sub-discipline.
- Demonstrate advanced research skills:
 - Be knowledgeable of historical developments in natural resource management and able to articulate, discuss, and synthesize concepts and evidence in a sub-discipline within this field.
 - Master observational, experimental and analytical methods required for executing research.
 - Interpret and evaluate research findings.
 - Demonstrate ability to communicate research findings, through oral presentation and written publications.
 - Demonstrate ability to write proposals for fellowships and research funding.
- Develop teaching and professional skills:
 - Be effective in educating others about natural resources management and affiliated sub-disciplines.
 - Be able to evaluate contributions made by others to natural resource management and affiliated sub-disciplines.
 - Develop collaborative skills.
 - Show commitment to professional development.
 - Be involved in departmental and university organizations.
 - Be involved in outreach activities.