

ECOLOGY, EVOLUTION, & CONSERVATION BIOLOGY, MS

for the degree of Master of Science in Ecology, Evolution & Conservation Biology

The Program in Ecology, Evolution and Conservation Biology (PEEC) is an interdepartmental program designed to provide individualized training in preparation for careers in these disciplines. Because of the breadth of fields covered by this program, there will be no fixed course requirements other than attendance at the program's seminar series and annual graduate student symposium. Courses taken by a student and the student's Advisory Committee generally will come from multiple departments. The goal of the program's regulations is to allow maximum flexibility while providing close supervision, with the outcome of producing scientists who are broadly educated and technically competent in ecology, evolutionary biology and associated disciplines. The program offers M.S. and Ph.D. degrees.

Admission

Prospective candidates must meet the requirements for admission set by the Graduate College of the University of Illinois Urbana-Champaign. Only applicants who have graduated from an accredited college or university and who hold or will be granted a baccalaureate degree (or its equivalent) comparable in content and completed credit hours to that granted by the University of Illinois Urbana-Champaign will be considered. Applicants must have a minimum grade-point average of 3.0 (A = 4.0) computed from the last two years of undergraduate (and any graduate) work completed. The program will give preference to candidates who hold a degree in biology or a closely related discipline and show promise of excellence in research and teaching. Typically, only students with strong letters of recommendation and a GPA well above the minimum stated above will be admitted. Demonstration of academic excellence by other means (e.g., extensive field or laboratory research experience) will also be considered. The Admissions Committee will make decisions concerning admission. For students whose native language is not English, the Program requires a minimum paper-based TOEFL score of 613 (257 on the computer-based test or 103-104 on the web-based test).

Financial Aid

Students admitted to the Program are typically offered two years of support for the M.S. degree and five years of support for the Ph.D. Support consists of fellowships, teaching assistantships or research assistantships. Such support typically comes with a waiver of tuition, service fees, or both. Continued offers of assistantships or fellowships each academic year will depend on an evaluation of satisfactory progress by the Director of the Program. Students who require more than two years to complete the M.S. degree or five years to complete the Ph.D. degree must submit a written petition to the Director of the Program, supported by their Advisor, to be considered for an additional year of support.

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All students must register for and attend the weekly PEEC seminar series (IB 546A) each semester in residence. An orientation seminar (IB 546B)

must be taken the first fall semester in residence. Excuses because of conflicts must be approved by the Director of the Program. Graduation requires the completion of a thesis. Student research will be guided and approved by an Advisory Committee of three faculty from at least two departments, including the Major Advisor who will serve as chair. The director of the program must approve membership of the Masters Advisory Committee.

For additional details and requirements refer to the Program's g (<http://sib.illinois.edu/peec/current/>) graduate handbook (<https://sib.illinois.edu/academics/graduate-programs/program-ecology-evolution-conservation-biology/graduate-handbook/>) and the Graduate College Handbook (<http://www.grad.illinois.edu/gradhandbook/>).

Requirements

| Code | Title | Hours |
|---|---|-----------|
| IB 546 | Topics in Ecology & Evolution (Section A to be taken each semester of enrollment. Section B if not taken in MS program) | 5 |
| linkurl^../corecourseliststext" target="_blank">students must complete one course from each core area:<a href="/graduate/las/ecology-evolution-conservation-biology-ms/ | | |
| Ecology Core List | | |
| Evolution Core List | | |
| Conservation Biology Core List | | |
| Thesis Hours Required (8 min applied toward degree) (Credit in rubrics other than BIOL, NRES, PBIO or ENT must be petitioned to apply.): | | 8 |
| Total Hours | | 32 |

Other Requirements

| Requirement | Description |
|---|-------------|
| Other requirements may overlap | |
| Course work in three core areas with grades no lower than B or S. | |
| Minimum 500-level Hours Required | 12 |
| Overall: | |
| Minimum GPA: | 3.0 |

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| Code | Title | Hours |
|--|---------------------------------|-------|
| Ecology Core Area Course, choose one: | | |
| IB 431 | Behavioral Ecology | |
| IB 439 | Biogeography | |
| IB 442 | Evolution of Infectious Disease | |
| IB 443 | | |
| IB 444 | Insect Ecology | |
| IB 447 | | |
| IB 450 | Stream Ecology | |
| IB 452 | Ecosystem Ecology | |
| IB 453 | Community Ecology | |
| NRES 419 | Env and Plant Ecosystems | |
| NRES 465 | Landscape Ecology | |
| Evolution and Systematics Core Area Course, choose one: | | |

| | |
|---|---------------------------------|
| IB 405 | Evolution of Traits and Genomes |
| IB 416 | Population Genetics |
| IB 426 | Env and Evol Physl of Animals |
| IB 461 | Ornithology |
| IB 462 | Mammalogy |
| IB 463 | Ichthyology |
| IB 464 | Herpetology |
| IB 467 | Principles of Systematics |
| IB 468 | Insect Classification and Evol |
| IB 471 | Fungal Diversity and Ecology |
| MCB 435 | Evolution of Infectious Disease |
| PSYC 433 | Evolutionary Neuroscience |
| Conservation Biology Core Area Course, choose one: | |
| ANSC 406 | Zoo Animal Conservation Sci |
| IB 444 | Insect Ecology |
| IB 451 | Conservation Biology |
| NRES 407 | Wildlife Population Ecology |
| NRES 409 | Fishery Ecol and Conservation |
| NRES 420 | Restoration Ecology |
| NRES 423 | |
| NRES 429 | Aquatic Ecosystem Conservation |
| NRES 474 | Soil and Water Conservation |

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Since the subject matter of our Program is interdisciplinary and broad, there is no one set of subject-based learning outcomes that is suitable for the evaluation of our graduate students. Instead, we will focus on appropriate research and professional development skills.

1. Design and implement independent research and integrate and apply core knowledge related to their field in 3 core areas out of 6 (behavior, conservation biology, ecology, evolution, genetics/genomics, physiology/ anatomy).
2. Demonstrate effective oral and written communication skills
 - a. Presentations
 - b. Publications
 - c. Grant writing
3. Apply rigorous statistics/analytical methods that typify their area of study
4. Professional skills
 - a. Data management
 - b. Citation management
 - c. Mentoring
 - d. Ethics
 - e. Professionalism
 - f. Networking
5. Teaching experience
 - a. Lead Discussions/Lab Activities Effectively
 - b. Effective in the presentation of information/lecture
 - c. Consistent Grader with meaningful feedback to students
 - d. Genuine concern for the learning outcomes of all students

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Graduate Degree Programs in Ecology, Evolution & Conservation Biology

- Ecology, Evolution & Conservation Biology, MS (p. 1)
- Ecology, Evolution & Conservation Biology, PhD (<http://catalog.illinois.edu/graduate/las/ecology-evolution-conservation-biology-phd/>)

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Program in Ecology, Evolution, and Conservation Biology

Program Director: Angela Kent

Program website (<https://peec.illinois.edu/>)

School of Integrative Biology website (<http://sib.illinois.edu/>)

320 Morrill Hall, 505 South Goodwin Avenue, Urbana, IL 61801

(217) 333-2910

PEEC-Support@illinois.edu

College of Liberal Arts & Sciences

College of Liberal Arts & Sciences website (<https://las.illinois.edu/>)

Admissions

Graduate College Admissions & Requirements (<https://grad.illinois.edu/admissions/apply/>)