Master of Arts in Ecology and Evolutionary Biology

Ecology and Evolutionary Biology Graduate Programs

The department comprises a large number of biologists with a variety of research interests. Three broad overlapping themes capture the interests and activities in EEB — biodiversity and macroevolution, ecology and global change biology, and evolutionary mechanisms. The department offers graduate study leading to Master of Arts and Doctor of Philosophy degrees in ecology and evolutionary biology. General information about the department and its faculty, current graduate students, admission, and financial support may be found on the EEB website (https://eeb.ku.edu/).

Neotropical biodiversity is a special area of concentration among EEB faculty. Many faculty members have courtesy appointments in the Latin American Area Studies Program, which fosters multidisciplinary research in Latin America across the campus. KU is a member of the Organization for Tropical Studies, and many faculty members and students participate in advanced, field-oriented OTS courses. Graduate students can receive fellowships for courses, e.g. BIOL 786 Fundamentals of Tropical Biology, or research projects in Costa Rica. Other EEB faculty have research concentrations in Asia, Africa, Antarctica, and elsewhere, creating a genuinely global reach for EEB research activities.

(B.A. and B.S. degree programs in biology are listed under Biology Undergraduate Programs (https://catalog.ku.edu/liberal-arts-sciences/biology/).)

Admission to Graduate Studies

An applicant seeking to pursue graduate study in the College may be admitted as either a degree-seeking or non-degree seeking student. Policies and procedures of Graduate Studies govern the process of Graduate admission. These may be found in the Graduate Studies (https://catalog.ku.edu/graduate-studies/) section of the online catalog.

Please consult the Departments & Programs (https://catalog.ku.edu/liberal-arts-sciences/) section of the online catalog for information regarding program-specific admissions criteria and requirements. Special admissions requirements pertain to Interdisciplinary Studies degrees, which may be found in the Graduate Studies section of the online catalog.

Graduate Admission

The departmental graduate admissions committee reviews the record of each applicant. Admission is based on background, preparation, test scores, and academic performance. The committee considers each candidate's overall undergraduate record in the context of the institution(s) from which the record was received. A graduate student should have a broad undergraduate background in natural science and math, including calculus, physics, chemistry, organismal biology, genetics, ecology, and evolutionary biology. Faculty recommendations, honors, awards, undergraduate research experience, publications, and professional experience also are considered. Enthusiasm, scientific expertise, and clarity of writing as evidenced by the applicant's essay are particularly important.

The master's degree is not a prerequisite for entering a Ph.D. program. Non-native speakers of English must meet English proficiency requirements as described on the English Proficiency Requirements policy (https://policy.ku.edu/graduate-studies/english-proficiency-international-students/). For more details on admission requirements, visit the EEB website (https://eeb.ku.edu/).

Applicants are encouraged to seek a faculty sponsor through correspondence with one or more faculty members prior or during the application process. Prospective doctoral students who would prefer to do rotations with two or three faculty members in their first year should indicate a general field of interest and a short list of prospective faculty mentors on their application. Interested students are encouraged to visit campus to meet faculty members and graduate students. Graduate school is critically important in beginning a career, and the choice of a program in which to enroll should be made carefully.

The number of students admitted is limited. Qualified candidates may be denied admission because of lack of a faculty sponsor, financial support, or research facilities.

Applications and supplemental materials may be submitted online. Applications from underrepresented groups are encouraged. For a detailed description of the application process, visit the EEB website (https://eeb.ku.edu/). All application requirements, including the deadline for application receipt, can be found on the EEB Admissions (https://eeb.ku.edu/how-apply/) page. Only complete applications are considered. Send inquiries to the graduate academic advisor listed on the EEB Faculty (https://eeb.ku.edu/faculty/) page.

M.A. Degree Requirements:

Ecology and Evolutionary Biology

Options I (Thesis) and II (Nonthesis)

Two options leading to the M.A. degree are offered. Option I (Thesis) is research-oriented and requires a thesis. Option II (Nonthesis) emphasizes broader graduate training without a concentration on research. For each option, the advisory committee must have at least 3 Graduate Faculty members, 2 of whom must be in EEB. No faculty member outside the department is required. A faculty member from a different department with a courtesy appointment in the student's home department may serve in fulfillment of the committee majority.

Required Course Work

Most course work requirements are identified during the student's preliminary advisory meeting. Students are expected to take graduate-level courses (or have equivalent knowledge) in ecology, evolution, and systematics. A student's advisory committee may add course requirements during annual meetings. Listed below are specific course requirements for all master's students in the EEB department:

1. Students must complete BIOL 805 Scientific Integrity in Ecology and Evolutionary Biology during the first year of graduate education in the fall semester. Students are expected to attend departmental seminars in subsequent semesters.
2. Students must complete BIOL 801 Core Topics in Current EEB Research Seminar during the first year of graduate study in the spring semester.
3. Students must complete a graduate-level course in statistics, typically fulfilled by completing BIOL 841 Biometry I. Alternatively, students may demonstrate equivalent background knowledge.

4. Students pursuing Option I (Thesis) must complete a minimum of 1 credit hour of BIOL 899 Master's Thesis.
5. 50% of the coursework required for the master's degree must be taken at the 700 level or above.

Master's students must meet a credit-hour-completion requirement. Those in the thesis program must complete a minimum of 30 graduate-level credit hours with no more than 14 of the 30 from enrollment in thesis, research, or advanced study hours. Those in the nonthesis program must complete a minimum of 36 graduate level credit hours with no more than 16 of the 36 from enrollment in thesis, research, or advanced study hours.

Master's Defense for Option I (Thesis) Students

During the final semester of enrollment, students pursuing the Option I (Thesis) master's degree must present the results of thesis research in a public forum and complete a thesis defense. The thesis presentation should follow the standard departmental seminar format. The master's thesis defense consists of a substantive test of the student's knowledge of the field and the thesis topic, with approximately 50 percent of the time devoted to questions in the general examination realm, covering the full breadth of the candidate's field of study (i.e., general knowledge of ecology and evolutionary biology). At the discretion of the student and advisor, the exam may be held on the same day as the thesis presentation, or the events may be held on separate days. The defense examining committee must be composed of 3 members of the Graduate Faculty, the majority of which must be tenured, or tenure-track EEB faculty with regular or dissertation status on the Graduate Faculty. In some cases it may be possible for committee members to attend the examination via mediated means such as tele/video-conferencing (for details view the exam attendance policy (http://www.policy.ku.edu/graduate-studies/oral-exam-attendance/)). To pass the thesis defense, a student must receive a majority of passing votes from the examining committee. Students must contact the EEB graduate program coordinator 2 weeks prior to the anticipated presentation and defense to request departmental and College permission to schedule the events.

Students planning to defend a master's thesis must submit copies of the thesis to the entire examining committee and to the GPC no less than 2 weeks (or longer if requested by the student's committee) in advance of the planned defense. The thesis should meet general formatting regulations (http://graduate.ku.edu/etd-formatting-and-working-multimedia-files/).

Master's Final Examination for Option II (Nonthesis) Students

During the final semester of enrollment in course work when nonthesis program activities are nearing completion, students pursuing the Option II (Nonthesis) master's degree must successfully complete a general oral examination. The examination's structure is similar to that of the doctoral oral comprehensive examination; however, the examination is shorter, and depth and breadth of knowledge required of the student are less comprehensive than expected of a successful doctoral aspirant. The examining committee must be comprised of at least 3 members of the Graduate Faculty, the majority of which must be tenured or tenure-track EEB faculty with regular or dissertation status on the Graduate Faculty. In some cases it may be possible for committee members to attend the examination via mediated means such as tele/video conferencing (for details view the exam attendance policy (http://www.policy.ku.edu/graduate-studies/oral-exam-attendance/)). To pass the master's final examination, a student must receive a majority of passing votes from the examining committee. Students must contact the EEB graduate program coordinator 2 weeks prior to the anticipated examination to request departmental and College permission to schedule the event.

Research

Upon completion of their work, students in M.A. Option I (Thesis) must submit a thesis reporting original research. The committee-approved thesis must be submitted electronically to Graduate Studies. Students must follow the instructions for thesis formatting (http://graduate.ku.edu/etd-formatting-and-working-multimedia-files/) and the instructions for submitting the thesis (http://graduate.ku.edu/submitting/). The thesis also must be submitted to the department as a PDF document. Copies of the title and acceptance pages containing the signatures of the examining committee members must be submitted to both the College and the department.

Students in M.A. Option II (Nonthesis) must conduct research with 1 or more faculty members involving work on a research problem that requires use of literature, and laboratory or field techniques. Nonthesis students must submit a comprehensive written report to the advisory committee. Examples of research problems that could be the basis of the written report include a literature review of a critical issue in a scientific discipline, original research, or other creative activity approved by the advisory committee. The committee-approved report must be submitted to the department as a PDF document. A copy of the title page containing signatures of the advisory committee members also must be submitted.

Time Constraints

A student beginning graduate study with only a bachelor's degree is expected to complete all work for the master's degree within 2 or 3 years of initial enrollment at KU. A student beginning graduate study with a master's degree in the biological sciences should complete all work for the doctoral degree within 4 to 5 years of initial enrollment at KU. A student beginning graduate study with only a bachelor's degree in the biological sciences should complete all work for the doctoral degree within 5 or 6 years.

The maximum tenure for EEB graduate students varies according to degree program. The policy for master's program length (http://policy.ku.edu/graduate-studies/ma-program-time-constraints/) allows a maximum of 7 years to complete the degree program, and the policy for doctoral program length (https://policy.ku.edu/graduate-studies/engagement-enrollment-doctoral-programs/) allows 8 years for completion. Students earning both an M.A. and a Ph.D. from the same academic department have a total of 10 years to complete both degrees. Petitions to extend the time limits must be approved by the student's advisory committee and forwarded to the EEB Graduate Program Committee for consideration before being forwarded to the College for final approval.

EEB requires that doctoral students must complete the equivalent of at least 3 academic years of full-time graduate study. This may include the time spent earning a master's degree.