ECOLOGY AND EVOLUTIONARY BIOLOGY, MS

The Department of Ecology and Evolutionary Biology offers the Master of Science degree in both a Thesis and Non-Thesis model (see degree requirements for detail.) The curriculum is designed to encourage maximum student choice and independence while maintaining a close student-advisor relationship. Students are encouraged to adopt a broad, integrative view of science and biological research. Course offerings cover such areas as animal and plant physiology, plant ecology, plant-animal interactions, population biology, structural and evolutionary biology, systematic biology, environmental toxicology, marine/estuarine ecology, and the biology of diverse groups of plants and animals. Students participate in an active departmental seminar program and informal research discussion groups.

Achieving our scientific mission is predicated on fostering an inclusive environment that welcomes and supports students, faculty, and staff from marginalized and underrepresented communities, including BIPOC, LGBTQ+, low income, first generation college students and people with disabilities. Academia broadly, and the fields of ecology and evolutionary biology specifically, have a long and well-documented history of racism and exclusivity that continues in many forms to this day. To remove the biases that prevent so many from engaging with, and succeeding in our field, we embrace proactive policies including sensitivity training, targeted funding opportunities, and equal-opportunity hiring and recruiting practices. We consider this work integral to the success of our department, The School of Science and Engineering and Tulane University, and to our academic disciplines.

Requirements

Thesis Model

Faculty Advisor

The student will consult his/her advisor in order to develop a course of study and to gain the advisor's approval for course registration. The faculty advisor must be a regular (full time) member of the department.

The potential applicant should contact the professor who is desired as advisor prior to making application to the Graduate Studies Program in the School of Science and Engineering. Admission to the EEB graduate program depends upon a faculty member committing to supervise the student's graduate program, including the thesis research and composition. Thus, each applicant must have contacted the potential advisor prior to the decision on her/his application for admission.

Entrance Interview

During the first semester of enrollment, each entering student interviews with the faculty advisor (Graduate Studies Committee Chair substitutes if an advisor has not been arranged) and two other regular faculty members. The purpose of the interview is to review prior courses taken by the student, discuss research interests and degree goals, and ensure that the student understands departmental graduate study procedures. Recommendations for coursework to address deficiencies or to enhance the student's program may be made during the interview. Download Entrance Interview Form (https://tulane.app.box.com/s/wb243g5hmhu7hxjckaqt2lpvan0dqbaz/).

Course Requirements

Course ID	Title	Credits
Year 1-2		
EBIO 6810	EEB Journal Review	1
EBIO 6910 & EBIO 6920	Independent Study and Independent Study This sequence could also be met by 2 sections of EBIO 7150 and EBIO 7160 OR Internship EBIO 7660 and EBIO 7670	2-8
EBIO 9980	Masters Research	3
Additional Approved Graduate level Electives		18-24
Total Credit Hours		**30**

Twenty-four semester hours of approved and graded graduate course work are required in addition to the production of an acceptable Masters of Science thesis. In general, up to 6 semester hours of transfer credit will be accepted toward the Masters of Science degree. Guidelines for acceptability of transfer credit can be found in the Graduate Catalog of the School of Science and Engineering. The Chair of the Department must approve all transfer credits. Courses taken at Tulane are usually taken in the EEB Department, but as many as nine graduate credits from other departments or divisions may be counted toward the course requirement.

Thesis

A student's faculty advisor will also be the director of his/her thesis research. A thesis committee must approve the completed thesis. The thesis committee will consist of at least three faculty members including the student's thesis advisor. EEB faculty must comprise a majority of the thesis committee. Each student must request approval for the composition of the thesis committee by letter addressed to the Chair of the Department. The thesis research must be presented to the Department in a public forum and defended at an oral examination conducted by the thesis committee. Specific instructions for thesis preparation are given in the Graduate Catalog of the School of Science and Engineering.

Non-Thesis Model (Terminal)

In order to earn this degree, students must have been admitted to the EEB graduate program through the regular Tulane University admissions process. Students admitted to the program must have completed the requirements for a baccalaureate degree in any discipline that includes course work in Chemistry (General Chemistry, and either Organic Chemistry or Biochemistry) and Biology (Genetics, Ecology, and Evolution). Additional coursework may be required to make up deficiencies. Students will meet with the graduate advisor prior to the beginning of his/her first semester to discuss appropriate course work for this degree.

Year 1		Credit Hours
EBIO 6810	EEB Journal Review	1
EBIO 6910 & EBIO 6920	Independent Study and Independent Study This sequence could also be met by 2 sections of EBIO 7150 and EBIO 7160 OR Internship EBIO 7660 and EBIO 7670	2-8
Additional Approved Graduate level Electives		21-27
	Credit Hours	**30**
	Total Credit Hours	**30**

All students seeking this degree must complete 30 credit hours of approved, graduate level coursework in EEB or other relevant departments. A maximum of 6 credits at the graduate level may be transferred to this degree program, at the discretion of the Chair of the Department.

4+1 Degree Program

A Five-Year Combined Degree Program - B.S. in Ecology and Evolutionary Biology (EEBI) or Environmental Biology (ENVB) and M.S. in Ecology and Evolutionary Biology

Description

The five-year, combined degree program is open ***only*** to Tulane undergraduate students. It combines the Bachelor of Science degrees offered by the Department of Ecology and Evolutionary Biology (EEB) with the terminal Master of Science degree in Ecology and Evolutionary Biology, condensing what would normally be about six years of study into five years. Students pursuing the interdisciplinary bachelor's degree in Environmental Science may also apply.

Undergraduate students typically graduate after four years of study, having fulfilled all regular requirements for the Bachelor of Science degree. The accelerated master's degree component allows six graduate credits (two 6000- or 7000- level courses) completed during the senior year to be applied to the B.S. degree as well as to the M.S. degree[1]. Each student pursuing the M.S. degree in Ecology and Evolutionary Biology then completes course work toward the master's degree during one additional year of graduate study. During the fifth (graduate) year the student typically completes a minimum of 24 credits of graduate work for a minimum total of 30 semester hours. The master's degree requires two semesters of independent study or internship courses instead of a written master's thesis. Each master's student will have a graduate advisor who has agreed to advise the student regarding the graduate program and to mentor the student during the independent study or internship.

Rationale

This degree program provides a broad background in the theories and methods of Ecology and Evolutionary Biology at the graduate level, and comprises a minimum of 30 graduate credit hours. The purpose of the 4+1 master's degree program is to provide students with training at the graduate level for one additional year beyond the baccalaureate degree. Thus, the master's degree component provides more complete preparation for future career paths than the Bachelor of Science degree alone. Students electing to pursue this degree program typically desire a broad background rather than a degree program involving a specialization in a particular area based on a master's thesis.

Students who are interested in seeking employment with environmental agencies of federal, state, and municipal government; non-governmental organizations; and in private industry, including environmental consulting firms, will want to take advantage of the elective courses (listed below) that can be taken outside the Department in credit toward this degree. This degree program also will be useful to students planning to enter the field of environmental law as the elective courses outside the Department include law courses in that field.

The degree program provides a foundation in Ecology and Organismal Biology. It requires independent study in Ecology and Evolutionary Biology (EBIO 6910, 6920) or Environmental Biology (EBIO 7150, 7160), or an internship with an approved off-campus agency (EBIO 7660, 7670). These components distinguish this terminal degree program from the thesis-based master's degree in EEB. The opportunity to undertake independent study or to accrue on-the-job training with a governmental or private agency through an internship lends a unique character to this program and may give graduates an employment advantage.

Eligibility

Applications and admissions for the 4+1 programs are rolling - applications are encouraged at any time of the year. Tulane undergraduate students are encouraged to talk with faculty about the 4+1 program during their junior year and may begin to take graduate level classes during their senior year, but should only apply formally during their senior year. By the end of the junior year (or at the time of application), candidates should have completed all LAS proficiency and distribution requirements for the B.S. degree and all core requirements for the major. Candidates are required to have a minimum 3.0 cumulative GPA and EEB GPA. To advance to the fifth (graduate) year, candidates must complete all requirements for the B.S.

degree in EEB by the end of their senior year, while maintaining the minimum 3.0 cumulative and EEB GPAs. Teaching assistantships are not available to students pursuing this master's degree program.

Footnote

1. During the senior year, two 6000- or 7000-level courses (6 credits), chosen in consultation with the graduate faculty advisor, may be completed toward both the bachelor's degree and the M.S. degree in Ecology and Evolutionary Biology. In some cases, students wishing to advance their work on the graduate component so as to devote more time to independent study or internship courses in the fifth year may petition the EEB Department to count as many as 12 credits of 6000- or 7000-level courses toward the graduate component. The six additional dual credits must be completed **in excess of the 120 required for the bachelor's degree**, giving the student a total of 126 credits or greater upon receiving the bachelor's degree.