

MASTER OF SCIENCE IN BIOLOGY (ECOLOGY AND ORGANISMAL BIOLOGY CONCENTRATION TRACK)

The master's degree in biology (ecology track) provides students who have completed an undergraduate degree in biology or closely related discipline, an opportunity for in-depth study of ecology. The master's degree requires at least 30 credit hours of graduate course work approved by the student's advisory committee and either a thesis, or original report (non-thesis option)

The master's degree in biology prepares students to enter a Ph.D. program or for career opportunities with environmental consulting firms and industry, state natural-resource agencies and geological surveys, planning commissions and water-resource agencies, state and national regulatory agencies, universities, colleges and secondary schools.

Ecology and Organismal Biology Concentration

Option A (Thesis): A minimum of 30 credit hours of approved graduate coursework is required for the master's degree in biology (average 42 hours). This includes 24 hours of formal courses (excluding EEES 6960 and EEES 6990) with a minimum of 19 hours in DES that must include:

Code	Title	Hours
EEES 5160	Advanced Environmental Data Management	3
EEES 6250	Graduate Launch	1
EEES 6400	Biostatistics	4
EEES 6600	Foundations of Ecology	4
EEES 6930	Seminar (EEES 6930-009, 1 hour per semester)	1

The remaining courses selected with approval of the student's thesis committee taken at the 5000 level or above; all but EEES 6930 (seminars) must be taken for a letter grade (A–F). Additional credit hours will include EEES 6960 and/or EEES 6990, a maximum of 6 hours of which may be taken for a letter grade, and may also include other DES or non-DES courses that need not be taken for a letter grade. The student must also prepare a thesis consisting of a written report on original independent research conducted by the student under the supervision of their thesis advisor (or co-advisors) and defend this thesis before their advisory committee.

Option B (Non-thesis): The non-thesis option for a master's degree in biology differs from the thesis option (above) by requiring 27 hours of formal courses and a maximum of 3 hours of EEES 6960 or EEES 6990; all but EEES 6930 (seminars) must be taken for a letter grade (A–F). The student also must write an original report based on library research and defend this report before his or her advisory committee.

- PLO 1. Students will demonstrate an in-depth understanding of and the ability to communicate scientific information within an area of specialized study within the biological sciences.
- PLO 2. A) Thesis track: Students will demonstrate an ability to conduct experiments, collect and interpret data, and disseminate those data in written and verbal modalities. B) Non-thesis track: Students will demonstrate an ability to review and evaluate the published literature and effectively communicate their findings in verbal and written modalities.
- PLO 3. Students will demonstrate knowledge of their ethical responsibility when conducting research in terms of proper scientific conduct and the rights of human subjects.