

FACT

Employment of environmental scientists and specialist is expected to increase by 15 percent between 2012 and 2022, faster than the average for all occupations.

Source: Occupation Outlook Handbook 2014 – 15, U.S. Department of Labor

Master of Science in Environmental Biology

The graduate major in Environmental Biology prepares students to work as professional biologists with a strong environmental emphasis. The application of quantitative methods and the design of field and laboratory studies are major components of this exciting program. GSU is uniquely located where urban and rural areas meet, allowing students to explore a diverse range of complex environments.

Outstanding Preparation

Program courses cover the spectrum of environmental biology from toxicology, physiology, and ethology to population and community ecology, emphasizing the applied aspects of these disciplines. You are trained in the application of quantitative methods and the design of field and laboratory studies. Internships are available at U.S. Fish and Wildlife Services, U.S. Environmental Protection Agency, Illinois Department of Natural Resources, Forest Preserve District of Will County, Indiana Dunes National Lakeshore, Brookfield Zoo, and Argonne National Laboratory.

Graduates work as naturalists at county, state, and national parks. Others find employment in the private sector as waste management consultants or with planning agencies as habitat assessment experts or pursue advanced degrees.

Unlimited Opportunity

GSU offers a superior educational opportunity and professional quality programs at an affordable tuition rate. GSU's outstanding faculty and real-world curriculum prepare graduates to meet the demands of the future.

Faculty Advisor:

Dr. Mary Carrington

Professor

Faculty Advisor

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Special Admission Requirements

In addition to meeting university admissions criteria, applicants must have completed a bachelor's degree with a G.P.A. of 3.0 or higher and maintained a G.P.A. of 3.0 or higher for any graduate work attempted.

Required Preparation

Applicants for the Environmental Biology concentration must complete the following course work with a grade of "C" or better in each course: eight hours of general biology with lab, eight hours of general chemistry with lab, three hours of statistical methods (STAT-4219/STAT-6219), and four hours each of organic chemistry with lab, ecology with lab, microbiology with lab, and either animal physiology with lab or plant physiology with lab. A second course in organic chemistry may be recommended in consultation with the graduate academic advisor.

Applicants for the Environmental Management and Policy concentration must complete the following course work with a grade of "C" or better in each course: eight hours of general biology with lab and three hours of statistical methods (STAT-4219/STAT-6219).

A student may be provisionally admitted to the program in either concentration pending completion of required courses or the re-taking of courses for which the original grade was less than "C." Students are expected to be proficient in a Windows environment with file management, word processing, spreadsheet, graphing, and Internet skills. Otherwise CPSC-2005 or equivalent will be required with a grade of "C" or better.

Thesis/Project Option

As part of the Environmental Biology concentration, students must choose between a thesis or project option.

In the thesis option, students develop a thesis proposal usually related to a faculty member's research, carry out a formal research study under the supervision of the faculty member and a degree committee, prepare a final manuscript that includes a thorough literature review chapter followed by a traditional manuscript chapter suitable for publication consideration, and make a formal research presentation. The thesis option would be appropriate for students who have focused research interests or who intend to pursue doctoral study.

In the project option, students develop a master's project proposal, complete the project in conjunction with a faculty member, and prepare a final technical report, and make a formal research presentation.

Admission to Candidacy

After admission as a degree-seeking student, a student also must be admitted to candidacy. To qualify for degree candidacy, a student must accomplish the following within three years of admission to the program:

1. Required Preparation: Complete the required preparation course work listed above with a grade of "C" or better in each course.
2. Degree Plan: Meet during the first term of enrollment with the program academic advisor and faculty to complete a degree plan for the student's course of study in Environmental Biology. The degree plan must be approved by at least three faculty members, the program academic advisor, and the chair of the Science Division.
3. Research Proposal: Identify a research advisor from among the full-time Biology faculty and prepare a formal research proposal. This proposal should be a comprehensive statement of the student's intended thesis/project research and must be approved by a committee of the research advisor and a minimum of two other faculty members. Approved research proposals must be filed with the program academic advisor

Master of Science in Environmental Biology, Management and Policy

College of Arts and Sciences

at least one year before the student's expected date of graduation.

4. Grade Point Average: Maintain a G.P.A. of 3.0 or better to sustain candidacy.

Students must meet all university requirements for a master's degree.

Degree Requirements

Required Courses (10 Hours)

BIOL - 7110 Graduate Seminar (1)*

*Taken each term after completion of required coursework; required to take four times.

BIOL - 7400 Intro to Biological Research (2)

STAT - 8820 Exp Design for the Natural Sci. (4)

Concentration Required Courses (12-15 Hours)

Environmental Biology Concentration

BIOL - 6657 Ecological Methods: Populations (2)

BIOL - 6660 Ecological Methods: Communities (2)

BIOL - 8860 Ecosystem Ecology (2)

Must select Thesis or Project option; difference is in required hours for BIOL-8990

BIOL - 8990 Graduate Thesis/Project (1 - 6)

Thesis Option: Six (6) hours required; Project Option: Two (2) hours required.

BIOL - 8998 Research Presentation (1)

Environmental Management and Policy Concentration

BIOL - 6210 Natural Resource Management (3)

BIOL - 6211 Natural Resource Mgmt Laboratory (1)

BIOL - 6220 Cont. Issues in Env. Law & Policy (3)

BIOL - 6230 Cultural Ecology & Env. Policy (3)

BIOL - 8970 Capstone Internship (1-4)

BIOL - 8995 Internship Presentation (1)

Selectives (9-19 Hours)

Students in the Environmental Biology Concentration - Thesis Option - select a minimum of 3 courses (9 hours).

Students in the Environmental Biology Concentration - Project Option - select a minimum of 19 hours.

Students in the Environmental Management and Policy Concentration select a minimum of 13 hours.

See advisor for a list of classes that meet the concentration selectives.

Total for Environmental Biology Concentration Thesis Option: 32 Hours

Total for Environmental Biology Concentration Project Option: 38 Hours

Total for Environmental Management and Policy Concentration: 38 Hours

2016-2017 Catalog Year