PLANT BIOLOGY M.S.

All students must meet the Requirements for the Master’s Degree

OVERVIEW

The Department of Plant Biology offers two M.S. programs:

- The thesis-based M.S. in Plant Biology
- The project-based M.S. in Plant Biology, Field Naturalist Option

THESIS BASED M.S. PROGRAM

M.S. students in the Department of Plant Biology have the opportunity to join research programs covering a diverse set of disciplines including developmental genetics, molecular regulation of gene expression, cell biology, plant-microbe interactions, ecological genomics, systematics and biogeography, and ecology of plant population and community dynamics. Graduate students become members of a collegial academic community where they are trained to become cutting-edge researchers and effective educators in the plant sciences. In addition, the University of Vermont has a vigorous research community in the life sciences, allowing students to interact and collaborate with colleagues across campus.

PROJECT-BASED M.S. PROGRAM, FIELD NATURALIST OPTION

The Field Naturalist Program is a unique field-based experience that develops the potential of tomorrow’s conservation leaders by emphasizing scientific integration, oral and written communication, and environmental problem solving. Students receive a solid grounding in field-related sciences and are trained to integrate scientific disciplines into a coherent whole at the landscape level. Students also develop competence in evaluating field sites from a number of perspectives and/or criteria, translating scientific insights into ecologically sound decisions, and communicating effectively to a wide range of audiences.

SPECIFIC REQUIREMENTS

Requirements for Admission to Graduate Studies for the Degree of Master of Science

- The equivalent of a UVM major or minor in a natural or physical science
- Strong scores on the Graduate Record Examination
- Evidence of previous research experience

Requirements for Admission to Graduate Studies for the Degree of Master of Science, Field Naturalist Option

- A background in science
- Strong scores on the Graduate Record Examination
- A demonstrated commitment to field sciences (e.g., research, field work, participation in environmental or conservation organizations)

A subject (advanced) test in biology or geology is advised for students who lack substantive coursework in natural sciences. Recent college graduates are encouraged to pursue interests outside academe before application to the Field Naturalist Program.

Minimum Degree Requirements

THESIS BASED M.S. PROGRAM

All students must successfully complete a total of 30 credits, including a minimum of 15 credits of program-related course work and 9 credits of thesis research. Satisfactory completion of the written and oral components of a comprehensive examination are required. A student’s M.S. degree is culminated by satisfactory completion of a thesis, a public seminar, and a private defense with their studies committee.

PROJECT-BASED M.S. PROGRAM, FIELD NATURALIST OPTION

All students must successfully complete a total of 30 credit hours that includes enrollment in the Field Naturalist Practicum (PBIO 311) and Professional Writing (PBIO 333) each semester and at least two courses in each of three core areas: (1) life science (2) earth science, and (3) ecology (course selection to be determined by the student’s studies committee). In addition, satisfactory completion of an oral comprehensive examination is required. A Field Naturalist student’s degree culminates in satisfactory completion of a field project for a sponsoring organization that includes a professional report, a focused literature review, a written academic reflection, an oral presentation, and a journal publication or article in the popular mass media.

Comprehensive Examination

THESIS BASED M.S. PROGRAM

A written and oral examination is completed by end of the student’s second year in the program. The written exam consists of questions from each of the student’s committee members, and after successful completion an oral exam is scheduled.

PROJECT-BASED M.S. PROGRAM, FIELD NATURALIST OPTION

An oral examination takes place in the student’s third semester. During this examination the student identifies, inventories and assesses the pieces, patterns, and processes of a previously unvisited landscape, and presents findings in a manner that would be meaningful to staff, officers, and scientists of The Nature Conservancy.
Requirements for Advancement to Candidacy for the Degree of Master of Science

THEESIS BASED M.S. PROGRAM
Satisfactory completion of the written and oral components of a comprehensive examination.

PROJECT-BASED M.S. PROGRAM, FIELD NATURALIST OPTION
Satisfactory completion of an oral comprehensive examination.