

# Botany- M.A., M.S., Ph.D.

For information, contact:

Botany Program Graduate Advisor

Department of Biology

212 Pearson Hall, 513-529-3100

[www.miamioh.edu/cas/academics/departments/biology/](http://www.miamioh.edu/cas/academics/departments/biology/)

## Research and Support Facilities

The Department of Biology in Pearson Hall is well-equipped with research laboratories in plant anatomy and morphology, cell biology, plant ecology, plant evolutionary genetics, plant molecular biology, mycology, plant physiology, plant systematics, and bioinformatics. Special facilities include: Center for Advanced Microscopy and Imaging, Willard Sherman Turrell Herbarium, Center for Bioinformatics and Functional Genomics, plant growth chamber facility, and the Ecology Research Center (184 acres). Special departmental funds are available on a competitive basis to support student research projects.

## Admission Requirements

Admission is based on evaluations by departmental faculty, the Graduate School, and (where applicable) the International Programs Office. All application instructions can be accessed through the Miami University Graduate School website. You should submit a departmental application, transcripts, Graduate Record Examination (GRE) scores, three letters of recommendation, a copy of your resume/CV, and a statement that describes your training and experience and defines your area of research interest and long-range goals.

## Combined Bachelor/Master's Program

The combined BA(BS)/MA program in Botany allows students to pursue a Masters of Arts degree in an accelerated manner while pursuing their bachelor's degree. It is designed for students who wish to acquire knowledge in plant sciences in order to prepare for a career in industry, governmental agencies, biological consulting, the non-profit sector, or related areas. Please contact the Botany Program Graduate Advisor for more information about the combined program.

## Botany- Master of Arts

(30 semester hours)

1. Minimum background preparation at the undergraduate level in:
  - general biology or botany
  - organic chemistry or biochemistry
  - genetics or evolution
2. Complete BIO 601 (Graduate Colloquium) during your first fall semester in residence.
3. Complete at least 36 hours of graduate work including:
  - a. one of BIO 650, BIO 710, BIO 720, or equivalent;
  - b. three courses from the following: BIO 502, BIO 525, BIO 566, BIO 581, BIO 582, BIO 583, BIO 605, BIO 671, BIO 672;
  - c. up to 12 hours of BIO 700.

4. Complete an internship experience (or approved substitute), write a report in accordance with current Graduate School guidelines, and pass an oral defense of the internship report.

## Botany- Master of Science

(30 semester hours)

1. Minimum background preparation at the undergraduate level in:
  - a. general biology or botany
  - b. organic chemistry or biochemistry
  - c. genetics or evolution
2. Complete BIO 689 and BIO 601 during your first fall semester in residence.
3. Complete at least 30 hours of graduate work including at least:
  - a. one of BIO 650, BIO 720, or equivalent;
  - b. one botany graduate (500 or above) course of three credit hours or more (with a "B" or higher) from three of the four core areas in botany;
  - c. one additional pedagogical botany graduate course exclusive of BIO 601, BIO 720, and BIO 750;
  - d. completing six to 12 hours of BIO 700.
4. Demonstrate adequate knowledge of botany and related areas by passing an oral comprehensive examination.
5. Pass an oral defense of the thesis.

## Botany- Doctor of Philosophy

(60 semester hours)

In addition to the general requirements specified by the Graduate School, you must meet minimum requirements for the master's degree or equivalent and fulfill the following requirements:

1. Complete BIO 689 and BIO 601 during your first fall semester in residence.
2. Complete at least 60 hours of graduate work including at least
  - a. two of BIO 650, BIO 720, or equivalent;
  - b. one biology graduate (500 or above) course of three credit hours or more (with a "B" or higher) from each of the four core areas in biology;
  - c. two additional pedagogical biology graduate courses exclusive of BIO 601, BIO 720, and BIO 750;
  - d. 16 to 60 hours of BIO 850.
3. Demonstrate adequate knowledge of botany and related areas by passing a written and oral comprehensive examination.
4. Pass an oral defense of the doctoral dissertation.