BOTANY, PH.D.

REQUIREMENTS

MINIMUM GRADUATE SCHOOL REQUIREMENTS

Review the Graduate School minimum academic progress and degree requirements (http://guide.wisc.edu/graduate/#policiesandrequirementstext), in addition to the program requirements listed below.

MAJOR REQUIREMENTS

MODE OF INSTRUCTION

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<th>Mode of Instruction Definitions</th>
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<td>Face to Face</td>
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CURRICULAR REQUIREMENTS

Assessments and Examinations

The preliminary examination should be taken by the end of the fourth semester in residence and must be taken by the end of the fifth semester. The preliminary exam includes a written research proposal, an oral presentation of the proposal to committee members, and an oral exam.

At least one semester of at least a 33% TA appointment is required.

During the final semester, candidates must present a department seminar on their dissertation research and complete a final oral exam. A written dissertation based on work conducted in a formal research course is required. All Ph.D. dissertations must be deposited at the Graduate School.

Language Requirements

Language requirements are determined on an individual basis with the major professor and will depend on the area concentration within the department.

Doctoral Minor/Breadth Requirements

All doctoral students are required to complete a minor.

Option A: 9 credits from one department. Minor department signs the minor agreement.

Option B: 9 credits distributed between two or more departments. Botany chair signs the minor agreement.

REQUIRED COURSES

A minimum of 51 credits in natural sciences (undergraduate and graduate program courses combined) is required. A minimum of 6 credits in graduate-level botany courses must be completed at UW–Madison. Seminars and research credits do not count toward the 6 credits in botany. Courses may be required to address deficiencies in the following: GENETICS 466 Principles of Genetics or equivalent; CHEM 103 General Chemistry I and CHEM 104 General Chemistry II or equivalent; CHEM 341 Elementary Organic Chemistry or equivalent; a physics course including electricity and light; one semester of statistics; one semester of calculus. Contact the department for more information.

Ph.D. students complete a minimum of 32 credits while in residence at the UW prior to earning dissertator status. These credits complete the following requirements:

- Courses required for their selected track (see below)
- Six (6) credits within the botany department (can also fulfill track requirements)
- Two (2) seminar courses, including one outside the student’s track and/or outside botany
- Courses for the student’s minor field of study
- Courses assigned by the Academic Advisory Committee and/or the student’s Ph.D. committee

Each graduate student in botany selects one of the following tracks:

General Botany Track

Ph.D. students must have one course from each of the following.

- genetics,
- biochemistry, cell or molecular biology,
- plant physiology or plant developmental biology,
- cryptogamic botany,
- plant anatomy or morphology,
These tracks are internal to the program and represent different pathways a student can follow to earn this degree. Track names do not appear in the Graduate School admissions application, and they will not appear on the transcript.

**Ecology Track**
Ph.D. students must have a minimum of five courses as follows:

- at least three courses (minimum of 9 credits) in ecology,
- one course in evolution, and
- one course in any of the following: systematics; cryptogamic botany; biochemistry, cell or molecular biology; plant physiology or plant developmental biology; plant anatomy or morphology; or genetics

**Evolution Track**
Ph.D. students must have a minimum of five courses, at least one from each of the following:

- evolution,
- systematics or cryptogamic botany,
- population or quantitative genetics,
- ecology, and
- one course in any of the following: biochemistry, cell or molecular biology; plant physiology or plant developmental biology; or plant anatomy or morphology

**Molecular, Cellular, and Developmental Biology (MCDB) Track**
Ph.D. and M.S. students must have a minimum of five courses, at least one from each of the following:

- plant anatomy or morphology,
- biochemistry, cell or molecular biology,
- plant physiology,
- plant developmental biology or genetics, and
- one course in any of the following: ecology; systematics; evolution; or cryptogamic botany

These tracks are internal to the program and represent different pathways a student can follow to earn this degree. Track names do not appear in the Graduate School admissions application, and they will not appear on the transcript.