Twin Cities Campus

Plant Biological Sciences M.S.

Plant and Microbial Biology

College of Biological Sciences

Link to a list of faculty for this program.

- **Students will no longer be accepted into this program after Spring 2018. Program requirements below are for current students only.**
- **Plant Biological Sciences is now Plant and Microbial Biology. Please refer to the Plant and Microbial Biology program for current admissions and program requirements.**

Contact Information:
Plant and Microbial Biology Graduate Program, 140 Gortner Labs, 1479 Gortner Avenue, St. Paul, MN 55108 (612-625-4222; fax:612-625-1738)
Email: pbiogp@umn.edu
Website: https://cbs.umn.edu/academics/departments/pmb/graduate-education

- Program Type: Master's
- Requirements for this program are current for Spring 2019
- Length of program in credits: 30
- This program does not require summer semesters for timely completion.
- Degree: Master of Science

Along with the program-specific requirements listed below, please read the General Information section of the catalog website for requirements that apply to all major fields.

Plant biological sciences encompasses all aspects of the basic biology of both higher and lower plants. Major emphases include molecular and physiological approaches to development; physiological, structural, and functional studies at the cellular and organismal levels; systematic and evolutionary biology; and molecular genetics and applied biotechnology. Students study plants from the subcellular and molecular to the whole plant and community levels of biological organization. They also have opportunities for laboratory and field research at state, national, and international levels. Each student's program is planned to meet individual requirements within the framework of a multidisciplinary core of coursework. Seminars are an integral part of the program.

Program Delivery

This program is available:
- via classroom (the majority of instruction is face-to-face)

Prerequisites for Admission

The preferred undergraduate GPA for admittance to the program is 3.00.

Special Application Requirements:
Applicants must submit scores from the General Test of the GRE; three letters of recommendation from persons familiar with their scholarship and research potential; a complete set of official transcripts; and a clearly written statement of career interests, goals, and objectives. Students may apply at any time; however, submission of all application materials by December 1st is required in order to ensure priority consideration for fellowships and teaching and research assistantships awarded for the next academic year.

Applicants must submit their test score(s) from the following:
- GRE

International applicants must submit score(s) from one of the following tests:
- TOEFL
  - Internet Based - Total Score: 79
  - Internet Based - Writing Score: 21
  - Internet Based - Reading Score: 19
  - Paper Based - Total Score: 550
- IELTS
  - Total Score: 6.5
- MELAB
  - Final score: 80

Key to test abbreviations(GRE, TOEFL, IELTS, MELAB).

For an online application or for more information about graduate education admissions, see the General Information section of the catalog website.

Program Requirements

Plan A: Plan A requires 14 major credits, 6 credits outside the major, and 10 thesis credits.The final exam is oral.

Plan B: Plan B requires 24 major credits and 6 credits outside the major.The final exam is oral.

This program may be completed with a minor.

Use of 4xxx courses toward program requirements is permitted under certain conditions with adviser approval.

A minimum GPA of 3.00 is required for students to remain in good standing.

At least 2 semesters must be completed before filing a Degree Program Form.

Core Coursework

Take the following core courses. Take 8900 twice (Section 001 - Colloquium, and Section 003 - Seminar) for a total of 2 credits.
PMB 5960 *{Inactive}*(1.0 - 3.0 cr)
PMB 8081 - Succeeding in Graduate School: Skills, Ethics, and Beyond (3.0 cr)
PMB 8900 - Seminar (1.0 cr)
PMB 8123 - Research Ethics in the Plant and Environmental Sciences (0.5 cr)
PMB 8994 - Research (1.0 - 5.0 cr)
GRAD 8101 - Teaching in Higher Education (3.0 cr)

Electives

Take additional coursework, in consultation and director of graduate studies, to complete the 14-credit minimum for the major field.

Outside Coursework

Take at least 6 credits of outside coursework in consultation with the advisor and director of graduate studies.

Plan Options

Plan A Requirements

Take 10 master's thesis credits.
PMB 8777 - Thesis Credits: Master's (1.0 - 18.0 cr)

-OR-

Plan B Requirements

Take an additional 10 credits, in consultation with the advisor and director of graduate studies, to meet the 30-credit minimum.