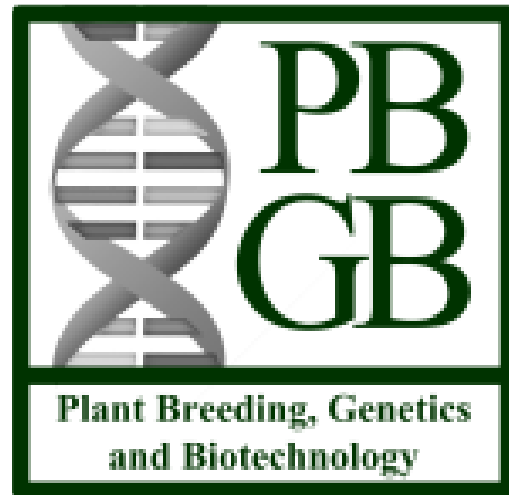


**PLANT BREEDING, GENETICS
AND BIOTECHNOLOGY PROGRAM**



MICHIGAN STATE

U N I V E R S I T Y

Program Guide

2021

TO: Graduate Students in the Plant Breeding, Genetics and Biotechnology Program:

On behalf of the faculty of the Plant Breeding, Genetics and Biotechnology Program (PBGB), I welcome new graduate students to our program and the Michigan State University campus. The PBGB Graduate Program is interdepartmental with faculty and students in Plant, Soil & Microbial Sciences, Horticulture, Plant Biology and Forestry participating. We hope that you will get to know all the faculty and graduate students during your time at MSU.

Your participation in the PBGB Graduate Program marks a new or renewed professional commitment. Your decision to proceed with an in-depth study of a selected area in this scientific field is likely to be one that will have a far-reaching impact on your future endeavors. We assure you that we will help you in every way possible to achieve your academic and professional goals. Your major professor and guidance committee members will work with you to design an academic and research program to meet those goals.

You have selected our graduate studies program because of its outstanding reputation and you have been admitted based on your prior record of outstanding academic achievement. You are expecting a lot from the PBGB program and your PBGB faculty will be expecting a lot from you. In contrast to undergraduate programs, you will be expected to do more independent research work and planning.

The PBGB Program holds an annual event that you should plan to attend and take part in. A “Symposium” on a special topic is held in December with outstanding speakers from other institutions giving presentations. Time is provided for PBGB graduate students to meet with the speakers. The PBGB also has a grad student organization that you should join and participate. There is also a PBGB outstanding grad student award that is given out yearly to an a student excelling in their graduate studies. Lastly, watch for opportunities to compete for travel funds to support your research and attend conferences.

Please do not hesitate to seek additional assistance from me, the graduate secretary, department graduate coordinator or department chair. We sincerely hope that you and your family will favorably remember your graduate years in the Plant Breeding, Genetics and Biotechnology Program at MSU.

Sincerely,

A handwritten signature in blue ink that reads "David S. Douches". The signature is fluid and cursive, with the first name "David" and last name "Douches" clearly legible.

David Douches, Director
Plant Breeding, Genetics and Biotechnology Program

**GRADUATE EDUCATION IN
PLANT BREEDING, GENETICS and BIOTECHNOLOGY
PROGRAM**

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GRADUATE EDUCATION IN THE PLANT BREEDING, GENETICS AND BIOTECHNOLOGY PROGRAM

Introduction

You were selected as a graduate student because of your accomplishments and expressed desire for further your educational and research experience. Graduate training involves learning through research, teaching, and extension/outreach experiences, as well as courses in a total program of education developed specifically for you.

Students entering graduate school must assume responsibility for maximum personal development through their own learning efforts. Formal learning situations such as classes and thesis development are important, but in themselves, do not provide the intellectual maturity needed for degree completion and post-degree responsibilities. Students are expected to develop more fully on their own initiative through individual study and thought, interaction with other students and faculty, and by taking advantage of other learning opportunities that are a part of their academic environment.

Many facets of graduate study are not identified in the MSU Academic Programs book. It indicates only the requirements necessary for a minimum level of accomplishment. Although these certain minimum requirements must be satisfied, students, under the direction of their major advisors and guidance committees, are given wide range and latitude in developing programs. It is, however, important that students accept the responsibility for making early and thoughtful decisions regarding total program content. Though program changes may be required at a later date, it is important that the overall direction of a student's program, including research, be developed at an early date.

Semester and summer breaks from classes should find you actively engaged in research, literature reviews, and related endeavors. If you are on an assistantship, you must clear any time off with your major professor. Graduate education is a full-time commitment.

Policies regarding graduate education are established at university, college, department, and program levels. As a result, there is no single complete policy statement. Thus, this handbook brings these policies into focus and clarifies many important points particular to the PBGB program.

Policy precedence proceeds from university to college to department to program to committee. Program policies are established to insure the best graduate education possible. This policy system reflects the true nature of the University and places more responsibility on the department, program, student, major advisor, and guidance committee.

Please carefully study the contents of this handbook as the information will be important to you as you pursue your goal of an advanced degree from MSU. If you have any questions, please do not hesitate to contact your major advisor.

The general University and College requirements for graduate programs are found at <http://www.reg.msu.edu/academicprograms/>. It should be consulted even though many of the relevant university and college requirements are included herein. This document is intended to establish policy guidelines to clarify college and university requirements and to relate to certain requirements with respect to graduate education in the Plant Breeding, Genetics & Biotechnology Program.

All students should obtain a copy of the graduate handbook from their home department and follow the department guidelines as well as the guidelines in this handbook.

Plant, Soil and Microbial Sciences (Crop and Soil Science):
https://www.canr.msu.edu/psm/degree_certificate_programs/graduate_programs/

Horticulture:
https://www.canr.msu.edu/hrt/students/graduate_hort/current_graduate_students

Plant Biology: <https://plantbiology.natsci.msu.edu/graduate-program/>

Forestry: <https://www.canr.msu.edu/for/graduate/>

GRADUATE EDUCATION: An Overview

The Crop and Soil Sciences graduate program in the Department of Plant, Soil, and Microbial Sciences (PSM) is an important and integral part of the department's activities in teaching, extension, research, and international programs. The department places a high priority on graduate education and attempts to create an intellectual environment conducive to effective learning. Diversity, Equity, and Inclusion are important, interdependent components of everyday life and are critical to our pursuit of academic excellence. Our aim is to foster a culture where every member of PSM feels valued, supported, and inspired to achieve individual and common goals. PSM has a standing Committee on Diversity, Equity, and Inclusion (DEI) with two graduate students as members on a rotating basis. We hope you will consider participating. For statements of DEI values, please access the CANR DEI pages at <https://www.canr.msu.edu/diversity/dei-statement>. Graduate students who have DEI concerns will receive confidential support to address and assist in helping resolve those concerns. Please see <https://www.canr.msu.edu/diversity/resources/>. Michigan State University has implemented a telephone and web reporting Hotline to help maintain adherence to ethical practices. The purpose of the Hotline is to provide an anonymous method to report known or suspected misconduct for Michigan State University related to fiscal matters, conflicts of interest, employment, medical/HIPAA, research, safety, athletics, discrimination/harassment, privacy, retaliation, or any other area of legal, policy, or ethical concern not specifically listed. Please see <https://misconduct.msu.edu/>

To facilitate maximum personal development, the department's program is flexible and permits substantial freedom for both students and faculty. This is intended to permit and encourage individual initiative by students in developing their educational programs and to provide the maximum basis for originality and creativity.

Though certain minimum requirements must be satisfied, a wide range of programs can be developed to fit the unique interests and needs of individual students. Programs can be developed to emphasize training in crop science or soil science with various fields of specialization in each area. Since the student, under the direction of his/her major professor and guidance committee, is given wide range and latitude in developing programs, it is important that the student accept the responsibility for making early and thoughtful decisions regarding total program content. Though program changes may be required later, it is important that the overall direction of the student's program, including research, be developed at an early date. Appropriate research areas include the applied fields as well as problems with a theoretical or methodological focus. In many cases a combination of these approaches will emerge. This document also describes the guidelines for the development of individual graduate programs and specifies the evaluation procedures used to assure that each graduate has achieved an acceptable level of competence.

The general university and college requirements for graduate programs including residency requirements, are found in the Michigan State University publication, *Academic Programs*, and can also be found at <http://www.reg.msu.edu/AcademicPrograms/>. It should be consulted even though many of the relevant university and college requirements are included herein. This document is intended to establish policy guidelines, to clarify college and university requirements and to establish departmental requirements for graduate education in the Department of Crop and Soil Sciences. In

addition, students are advised to consult the section entitled "Graduate Student Rights and Responsibilities" in *Spartan Life: MSU Student Resource Guide and Handbook*. A copy of *Spartan Life* may be obtained from Student Affairs and Services, 162 Student Services Building or by visiting the website at: <http://www.vps.msu.edu/SpLife/index.htm>. This document contains additional information concerning academic programming, termination of graduate assistantships, access to student records, and redress of grievances, among other subjects.

SUMMARY OF ADMISSION REQUIREMENTS

MASTERS DEGREE (M.S.)

- a. Completion of B.S. or equivalent
- b. Minimum GPA of 3.0
- c. GRE exam score of:
Verbal Reasoning 153
Quantitative Reasoning 144
Analytical Reasoning 3.0
- d. Three letters of recommendation
- e. All international applicants must pass the TOEFL English language test with minimum average scores, on a paper-based test of 550, no sub-score below 52. Internet-based tests must have no sub-score below 19 for reading, listening and speaking, no writing sub-score below 22; with a minimum average score of 80. Provisional scores must be a minimum of 520 for paper-based and an average score of at least 70 for internet-based.
- f. A faculty member must have agreed to serve as major advisor.
- g. A graduate student not in PBGB, but regularly enrolled at MSU, may be admitted after attaining a 3.25 GPA for one semester, depending on courses completed.
- h. The PBGB Advisory Committee may be petitioned for exceptions to these requirements.

Course Credit Requirements (Plan A Only)

30 credit hours total, including research credits; 16 credits at 800 level or above.

Transfer Credits

A maximum of nine credits may be transferred if approved by the major professor, guidance committee and dean.

DOCTOR OF PHILOSOPHY (Ph.D.)

- a. Completion of M.S. or approval by PBGB advisory committee
- b. Minimum GPA of 3.0
- c. GRE exam score of:
Verbal Reasoning 153
Quantitative Reasoning 144
Analytical Reasoning 3.0

- d. Three letters of recommendation
- e. All international applicants must pass the TOEFL English language test with minimum average scores, on a paper-based test of 550, no sub-score below 52. The internet-based test must have no sub-score below 19 for reading, listening and speaking, no writing sub-score below 22; with a minimum average score of 80. Provisional scores must be a minimum of 520 for paper-based and an average score of at least 70 for internet-based.
- f. A faculty member must have agreed to serve major advisor.
- g. The PBGB Advisory Committee may be petitioned for exceptions to these requirements.

Course Credit Requirements

- CSS 880 (1 credit) OR an equivalent writing course
- STT 814: Advanced Statistics Biologists (4 credits)
- CSS 819: Advanced Plant Breeding I (3 credits)
- CSS ????: Advanced Plant Breeding II (3 credits)
- BMB 856: Plant Molecular & Omic Biology OR CSS 451: Biotech for Plant Breeding (3 credits)
- HRT 820: Plant Reproductive Biology & Polyploidy (1 credit)
- PLB 812: Plant Genomics (3 credits)
- One computational course (e.g. quantitative genetics/populations, statistics modules, programming course) approved by student's thesis committee
- PBGB seminars or equivalent (3 credits total)
- Research (24 credits)

Transfer Credits

A maximum of 1/3 of total credits may be transferred from another institution if they have not been used for another degree.

Direct Admission to Ph.D.

A student may be admitted for a Ph.D. without completion of a M.S. degree, with the approval of the major professor. Such requests should be in writing to the Graduate Programs Committee and are subject to approval by the PBGB Director. Students who plan to pursue work toward a doctorate without earning a Master's degree will have enrolled as Master's candidates until they have earned 30 graduate credits. Any student admitted to this program must take an oral exam administered by his/her guidance committee after 30 credits of study.

Readmission

If your program of study is interrupted for one or more semesters, exclusive of summer, you must apply for readmission. Readmission forms are available on-line at: <http://www.reg.msu.edu/StuForms/ReAdmission/ReAdmission.asp>. Readmission is based on the applicant's graduate student standing and the availability of a faculty member to serve as the applicant's major professor.

PBGB GRADUATE ASSISTANTSHIPS

All candidates for assistantships must satisfy the requirements for admission to regular or provisional status. Additional criteria include courses taken, performance as reflected in transcripts, practical experience in the specific area to be investigated, strength of recommendations, and GRE scores. Assistantships are awarded on the basis of availability, area of interest and ability without regard to race, sex, or religions preference.

General Policies

PBGB supports four ¼-time teaching assistantships per year. Graduate research assistantships may be on a quarter- or half-time basis. Assistantship appointments are for periods of one semester to two years. The stipend, activities and course load are proportional to the percent of time designated by the assistantship. Assistantships established by use of university or research contract funds are at three levels:

- Level 1: Assistants with a bachelor's degree and less than two semester's experiences as a graduate assistant.
- Level 2: Assistants with a Master's degree (or equivalent); OR 30 or more grad semester credits or equivalent; OR at least two semester's experiences as a graduate assistant or full-support fellow.
- Level 3: Assistants with a Master's degree (or equivalent); successful completion of doctoral comprehensive exams, as defined by the department in which the student is enrolled; 6 semesters as a graduate Research/Teaching (R/T) Assistant at MSU, or equivalent. The definition of equivalence is left to the discretion of the chairperson of the appointing unit, but it is expected that only experience in research-oriented assignments count toward the 6 semesters of experience as an RA.

An increase in stipend accompanies an increase in level.

Tuition, up to 9 credits per semester (5 credits for summer semester), is waived for graduate assistants, and health care is provided during the semesters a student is supported by an assistantship. Fees and taxes are the responsibility of the student.

Each graduate assistant is responsible to his/her major professor and will have responsibilities for at least one research project. Therefore, responsibilities of assistantships will vary. Enrollment in courses, credit load per semester, training activity, etc., should be approved by the major professor before registering. The major professor is responsible for seeing that the assistantship appointment forms are initiated out of the office of the PBGB Secretary for them to be ready upon arrival of the student. A student must meet the requirements for academic standards and retention, as described in Article 4.5.3 of Spartan Life, to retain financial assistance: <http://splife.studentlife.msu.edu/graduate-student-rights-and-responsibilities>.

REQUIREMENTS

General – All Candidates

Appointment of Examining Committee

Graduate Teaching Requirement *if* required by student's home department

Responsible Conduct of Research (RCR) – as required by student's home department

Graduate Student Evaluation as required by student's department

Courses:

STT 814: Advanced Statistics Biologists (or equivalent)

CSS 819: Advanced Plant Breeding I

CSS ????: Advanced Plant Breeding II

BMB 856: Plant Molecular & Omic Biology or CSS 451: Biotech for Plant Breeding
or PLB 812: Plant Genomics

One computational course ((e.g. quantitative genetics/populations, statistics modules,
programming course) approved by student's thesis committee)

Scheduling of Final Oral Defense Exam

M.S. Candidates – 30 total credits required for graduation

Grad Plan – This is used to track committee, program of study and other milestones
(<https://student.msu.edu/splash.html>)

Research credits (6-10 credits)

PBGB Seminar or equivalent – 2 credits

Result of Final Defense

Ph.D. Candidates – *recommended* 24 course credits for graduation

Grad Plan – This is used to track committee, program of study and other milestones
(<https://student.msu.edu/splash.html>)

PBGB Seminar or equivalent – 3 credits

Research credits (24 credits)

Record of Comprehensive Examination

Record of Dissertation and Oral Examination

Responsibilities

Completion of the requirements for the M.S. and Ph.D. degrees are the responsibility of the candidate (student) with appropriate guidance from the major professor.

The candidate will file and maintain correct records of progress with the major professor, together with the PBGB Program. The PBGB graduate secretary maintains all student files.

The candidate, major professor and guidance committee in the M.S. and Ph.D. programs will plan the program of study, as well as the thesis or dissertation research.

The candidate's major professor is the most important partner in a graduate degree program. Committee members serve a valuable function and should be selected early. Candidates should keep the major professor informed of their activities and progress. Frequent, short conferences are better than infrequent, long conferences. Such contact helps prevent disappointment at a later date.

Time Limits

- Comprehensive examinations for the Ph.D. degree must be taken within five (5) calendar years, and the degree completed with eight (8) years from initial enrollment. The Ph.D. degree must be completed within three (3) years after passing the comprehensive examination, or the examination must be repeated.
- Completion of a MS degree must be completed within 5 (five) years.
- Completion of a PhD degree must be completed within 8 (eight) years.
- Students may petition the PBGB Advisory Committee for an extension in time under extenuating circumstances. An extension must be approved by the Dean and the Graduate School.

Academic Standards

For retention, the major professor and guidance committee make the decision. For graduation, a GPA of at least 3.0 in prescribed courses, **exclusive of collateral courses and research**, is required. **A student not meeting academic requirements may be terminated at any time, subject to Graduate Student Rights and Responsibilities procedures.** <https://grad.msu.edu/gsrr>

PBGB Program Advisory Committee

The goal of the Plant Breeding, Genetics and Biotechnology Program Advisory Committee (PBGBAC) is to maintain high standards of graduate education. The committee is composed of four faculty members elected by the PBGB faculty with each serving a 2-year term.

The PBGBAC reviews and approves student applications to the program and recommends program graduate policies to the PBGB Director and assures adherence to them. The Committee may review the progress of each student and try to avert irregularities that might develop. Committee members serve as moderators of PBGB oral and comprehensive exams. The Committee is available to meet with graduate students, as a group or individually, to discuss graduate education.

The PBGBAC members are also available for consultation regarding problems affecting progress in acquiring an advanced degree. A student may discuss problems with members of the committee, file a written report, or meet with the committee.

Major Professor

In many instances the student's major professor is determined before the student arrives, in accordance with the academic and commodity interests of the student and the availability and willingness of a faculty member to serve in that capacity. Students should contact the major professor immediately upon arrival at MSU. Students accepted into a rotation program must choose a major professor before the first year of funding is completed.

If a student desires a change in major professor for any reason, the change must be requested before the end of the second semester. Any changes must first have the approval of the PBGB Director and both the PRESENT AND FUTURE major professor. Failure to do so may result in a request for withdrawal from graduate studies.

Guidance Committee

The guidance committee will be determined by the student and the major professor. The guidance committee appointment form must be completed and filed by the major professor, with the PBGB Director **by the end of the student's second semester, excluding summer**. The major professor will serve as chairman of the guidance committee. Each member of the guidance committee must be contacted by the student and be willing to serve before the appointment form is submitted. The guidance committee for the M.S. degree will be composed of a least three members (one is the major professor) from at least two different departments or programs, with a minimum of two members from the PBGB faculty. The committee for the Ph.D. degree will be composed of at least four members (one is the major professor) from at least two departments or programs, with a minimum of three members from the PBGB faculty. All committee members must be regular faculty or fixed-term faculty approved to serve as major professors.

The guidance committee serves two main functions: 1) to direct the program of study and research, and 2) to administer examinations and the defense of the thesis or dissertation. The final examination or dissertation defense will include a one-hour seminar presentation, followed by an examination conducted by the guidance committee and other faculty members based on the content of the thesis or dissertation. A student is encouraged and should feel free to contact any members of the guidance committee regarding any phase of his/her graduate work.

Teaching Requirement

The PBGB graduate program does not require that all graduate students participate in a meaningful teaching experience as part of their graduate program. There may be departmental requirements, and such activity will enhance their overall qualifications and academic experiences. Please note that the PBGB graduate program does support a limited number of single semester ¼ teaching assistantships for PBGB courses needing a TA.

PBGB Philosophy for Teaching Experience

The recommended method of satisfying the teaching requirement is for the student to participate in the teaching of an organized course during at least one academic semester while enrolled for **each advanced degree**. The student is to work in conjunction with the course instructor and to participate fully in all aspects pertaining to the organization, conduct and evaluation of the course. Duties could include, but are not limited to, helping organize a new course reorganizing an existing course; determining what plans, material and supplies are needed for securing them; assembling, preparing, or revising teaching materials; teaching one or more lectures or laboratories; teaching on or more

laboratory sections; helping design, prepare, proctor, and grade exams; grade papers or other assignments; help organize and conduct field trips; help coordinate undergraduate teaching assistants who are teaching laboratory sections; and other assignments related to teaching. Generally, graduate students can meet this requirement by spending 8-12 hours per week during one semester. This will vary depending upon a student's background, experience, course requirement, and needs of the program. The student, after consultation with the major professor, shall be responsible for contacting the PBGB Director to arrange for completion of the teaching requirement.

The primary responsibility for determining how the teaching requirement is to be fulfilled rests with the student and the PBGB Director, based on the teaching assistance requests of the faculty. Graduate students will be match as closely as possible with the semester they request to fulfill this requirement and the course(s) most closely related to their expertise and request.

The PBGB Advisory Committee will serve in an advisory role and review capacity on the teaching requirement to assist in obtaining consistent standards among graduate programs.

An evaluation and certification of assistance in teaching by the course instructor will be placed in the student's file upon completion of the teaching requirement. This form may be obtained from the PBGB Secretary before the teaching assignment begins. Any graduate student who has served as an assistant in a course cannot subsequently take that course for credit.

All teaching assistants must attend the MSU Teaching Assistant Orientation.

International Students: Graduate teaching assistants must be interviewed by the English Language Center faculty before teaching begins. If a student fails to pass the minimum all-University standards of English proficiency for regular admission status, he/she may not teach classes without the approval of the English Language Center.

Seminars

All students must register for and complete two seminar credits for the M.S. degree and three credits for Ph.D. degree. Formal graduate student seminar course numbers are CSS, FOR or HRT 892. GEN 800 may be used to fulfill this requirement.

Comprehensive Examination for the Ph.D.

If your home Department requires a Research Proposal, this must be completed before taking the comprehensive exams.

A comprehensive knowledge of the student's major and related fields must be demonstrated to the guidance committee by examination, written and oral. The comprehensive examination must be scheduled during the first semester following completion of 80% of the course work. A student who does not meet this requirement may not be allowed to register for the following semester. The examination shall be **written** and **oral** and must be passed before the oral defense of the thesis can

be scheduled. The written exam will be 8 hours in length; the length of the oral will be determined by the examining committee.

Announcement of the oral comprehensive exam must be made to the faculty in writing by the PBGB Secretary at **least 7 days** prior to the exam. The student will provide the necessary information for the announcement to the PBGB Secretary at **least 24 hours** before the announcement is due. The announcement concerning the comprehensive examination will include the following statement: “All members of the comprehensive committee, or their designated representatives, must be present during the entire examination.” An absent member will name his/her representative.

The Comprehensive Committee will be chaired by a member of the PBGB Advisory Committee, or a PBGB faculty member if a PBGBAC member is not available. The chairperson of the committee shall not have voting privileges but shall ensure that the student is given a fair examination. Other faculty members attending the examination may question the candidate and discuss student performance but will be excused immediately prior to voting by the Comprehensive Exam Committee.

The comprehensive examination may be passed with a maximum of one dissenting vote of the committee. If the student does not pass, the examination may be rescheduled after a minimum of one semester and a maximum of two semesters of additional study. Failure to pass the second examination within the time limits shall constitute dismissal from the graduate program. The chairperson of the examining committee shall return the examination decision form to the PBGB Secretary within 24 hours of completion of the oral exam.

Final Examination for M.S. and Ph.D.

All changes in a program of study and any incomplete or deferred grades (except 899 and 999) must be cleared before the examination can be scheduled. The examination will determine whether the student has achieved a minimum level of competence in the general area of plant breeding and a comprehensive knowledge of their major area of specialization. It shall encompass both the course of study and defense of thesis. The final decision to pass or fail the student will be rendered by the examining committee. While a unanimous decision is usual, a two-thirds majority vote to pass is sufficient for successful completion of the examination. Each member of the committee will sign the exam certification form for transmittal by the major professor to the program Director. A student may be required to repeat the exam. If the second exam is not passed, the student will be required to withdraw from graduate studies in PBGB.

The final examination should be scheduled after the thesis or dissertation has been reviewed by all members of the guidance committee and their suggestions have been incorporated. The thesis or dissertation must conform to university format as directed in Graduate School Thesis and Dissertation ELECTRONIC Submissions: <http://grad.msu.edu/etd/>.

Upon scheduling the seminar, a “final examination” form and a copy of the thesis or dissertation abstract must be filed with the PBGB Secretary at **least eight days** before the examination. Faculty

will be notified by the PBGB Secretary at **least seven days** prior to the examination. The oral examination may cover any course work taken, seminars given in the Department, the research project selected, and any related work.

Within 48 hours after the conclusion of the examination, the major professor shall submit a final examination form to the PBGB Secretary. Following the final examination, the dissertation shall be modified as directed by the committee and submitted, as outlined in the Graduate School Thesis and Dissertation ELECTRONIC Submissions.

Dissertation and Abstract

MSU **only accepts** electronic dissertations submitted via ProQuest.

- a. Each student is referred to the Graduate School Thesis and Dissertation ELECTRONIC Submissions: <http://grad.msu.edu/etd/> for step-by-step instructions for electronic submission, important dates, and formatting guide.
- b. The dissertation is based on research conducted in partial fulfillment of requirements for the Ph.D. degree and is prepared under the supervision of the student's major professor. It must be approved by the student's guidance committee.
- c. An abstract, not exceeding two pages, must also be prepared.

EXIT SURVEYS

Students will complete an in-person exit survey with their home department chairperson following their thesis or dissertation defense. This is an informal meeting and provides each graduate student the opportunity to discuss their graduate student experience in their department at Michigan State University. Once the defense date is scheduled, the departmental administrative assistant will schedule the meeting with the department chairperson.

A short online exit survey for all students graduating with a Plan A or Plan B masters or with a Doctoral degree becomes available to graduate students when they have applied for graduation. The survey asks questions about educational experiences in MSU graduate programs, as well as professional plans. The Graduate School uses data from this survey when reviewing graduate programs and to guide decisions about services and initiatives for graduate students. The identity of all respondents will be kept confidential and only aggregate (group) information will be made available to faculty and administrators. The students will receive an e-mail message from the dean of the graduate school with a link to the survey. However, students do not need to wait for that e-mail message to complete the survey after applying for graduation. It takes 5-10 minutes to complete the online survey. Below are the instructions for completing the survey and they are also available from exitsurvey@grd.msu.edu.

Beginning Spring 2021, graduating master's students will receive their exit survey from MSU's license with 12Twenty, not from egr.msu.edu.

- For master's exit surveys, direct questions to CareerServices@csp.msu.edu
- For doctoral exit surveys, direct questions to ExitSurvey@grd.msu.edu

I. STUDENT CONDUCT AND CONFLICT RESOLUTION

The document entitled "**Graduate Student Rights and Responsibilities**, Michigan State University" is available online at <http://www.vps.msu.edu/SpLife/gradrights.htm>. Students are expected to be familiar with its content, including those sections dealing with grievances brought by and against graduate students. Students may also seek other resources on how to avoid and deal with problems that may arise. For example, see the "**Guidelines for Graduate Student advisory and mentoring relationships**" at <http://grad.msu.edu/Staff/mentorreport.pdf>.

Conflict Resolution

At times there may be conflicts or confusion about policies that need to be resolved. If so, the first step is to discuss this with the major professor. If a solution to the problem cannot be attained, the student can then discuss the issue with the Department Chair or Graduate Program director to find solutions

Graduate Student Grievance Procedures

If issues and disputes that relate to violation of student academic rights or an allegation of academic misconduct arise, the Department Chairperson and Graduate Program Director serve as resource persons for these issues. If an informal procedure does not settle the issue(s), the student or other parties may file a formal grievance with the **Department Judiciary** following procedures set forth in the **PSM Bylaws**, Appendix A: Grievance Procedures for the Department of Plant, Soil, and Microbial Sciences. A copy of the PSM Bylaws is available on the PSM website.

The **office of the Ombudsperson** (<https://ombud.msu.edu/>) is also available to help all MSU graduate students in resolving resolve issues and disputes.

Michigan State University has implemented a **telephone (1-800-763-0764) and web reporting Hotline** to help maintain adherence to ethical practices. The purpose of the Hotline is to provide an anonymous method to report known or suspected misconduct for Michigan State University related to fiscal matters, conflicts of interest, employment, medical/HIPAA, research, safety, athletics, discrimination/harassment, privacy, retaliation, or any other area of legal, policy, or ethical concern not specifically listed. One can choose to remain anonymous or provide their name and contact information. Please see <https://misconduct.msu.edu/>

II. UNIVERSITY POLICY - DISSEMINATION OF GRADUATE STUDENTS' RESEARCH

- A. In keeping with MSU's public mission, the University requires that theses, dissertations, and abstracts will become public after the conferral of the degree; embargoes can only be pursued for a limited period (see [1] below). Results that are subject to restrictions for dissemination by funding agencies (see [2] below) cannot be part of any document submitted as a thesis or dissertation to the Graduate School.

- a. **Hold/embargo on publication of documents submitted to ProQuest:**

Students submitting a thesis/dissertation to ProQuest now can request a hold/embargo of publication by ProQuest by contacting the Graduate School at msuetds.approval@grd.msu.edu. In response to the request, the Graduate School will send directly to the student a form that needs to be completed and turned to the Graduate School prior to submission of the document to ProQuest. The form needs to be signed by the student's major professor and by the Associate Dean of the student's college. The request for the hold/embargo may be for six months, one year or two years. Requests for a period longer than six months must include a written justification for the length of the hold/embargo.

b. Graduate Students' participating in University Research Organization (URO; <https://uro.egr.msu.edu/>):

Graduate students involved in a URO project will receive both written documentation and a verbal explanation of any limitations or implications to their current or future academic progress prior to participating on the project. Students engaging in work for a URO project undergo a 2-step approval process before hiring: a consultation with a representative of the URO's office to explain the restrictions on the project, and an interview with the Graduate School Dean or Dean's designee to discuss the relationship, if any, between their work as graduate students and their participation in the project. Students must be informed that results that are subject to restrictions for dissemination cannot be part of any document submitted as a thesis or dissertation. As part of their degree program, all graduate students must have research options to ensure the generation of appropriate results to fulfill the degree requirements, and to have data for professional development activities that are integral to their graduate education (e.g., presentations at conferences and research seminars).

III. UNIVERSITY RESOURCES

- A.** Preparation of Master's Theses and Doctoral Dissertations: This describes the final procedures for degree completion and manuscript requirements for the thesis or dissertation. It is available from The Graduate School, 118 Linton Hall, or on-line at <https://grad.msu.edu/etd>.
- B.** Office for International Students and Scholars (OISS): The Office for International Students and Scholars (OISS, <https://oiss.isp.msu.edu/>) serves international faculty and students. OISS is a resource center for information and consultation on matters related to the international student and faculty/scholars. The OISS is located in room 103 in the International Center.
- C.** Olin Health Center Phone: 517-353-4510: The Student Health Service (<http://olin.msu.edu/>) is located in Olin Health Center. In the event of an emergency, go directly to Sparrow Hospital or McLaren Hospital.
- D.** Ombudsperson: Conflicts, disagreements, and issues sometimes arise during the course of a graduate program. If you find yourself in this situation and have exhausted the internal resources for resolving the issue, you may contact the Office of the University Ombudsperson. The MSU Ombudsperson office provides the following free services to units upon request.

- a. **Unit Climate Assessment:** The Ombuds office will help you conduct a confidential assessment of your unit's climate. <https://ombud.msu.edu/education-training-assessments/assessments>
- b. **Presentations & Trainings:** The Ombuds office will deliver presentations and trainings that cover common topics such as principles of academic integrity, conflict resolution, decision making, FERPA, the role of the Ombuds office, and custom topics. These offerings can be tailored for faculty & staff, students, and/or the classroom. <https://ombud.msu.edu/education-training-assessments/presentations-trainings>
- E. The Graduate School: The Graduate School website is <http://grad.msu.edu>. This site contains a wealth of information and guidelines relevant to graduate students and graduate programs.
- F. Graduate Education Union: Information about, and the handbook for, the GEU can be found at the following web site: <http://www.geuatmsu.org/>.
- G. International Travel: 1. Students traveling abroad should visit the "Travel Smart" website (<http://grad.msu.edu/travel/>) before their trip. 2. Check the International Studies and Programs website for issues related to safety around the world. <https://www.isp.msu.edu/>. 3. Apply for assistance with travel funding via the Graduate School. If the Graduate School provides funding, they will also provide a MEDEX emergency card.
- H. Diversity, equity and inclusion (DEI) - all students must complete MSU's online DEI training. [Visit the Training page](#) from MSU's Office of Regulatory Affairs for FAQs and the link to take the training in the Ability system, and watch for updates as this requirement evolves.

IV. GRADUATE STUDENT ACADEMIC GRIEVANCE HEARING PROCEDURES

Each right of an individual places a reciprocal duty upon others: the duty to permit the individual to exercise the right. The student, as a member of the academic community, has both rights and duties. Within that community, the student's most essential right is the right to learn. The University has a duty to provide for the student those privileges, opportunities, and protections which best promote the learning process in all its aspects. The student also has duties to other members of the academic community, the most important of which is to refrain from interference with those rights of others which are equally essential to the purposes and processes of the University. (GSRR Article 1.2)

The *Michigan State University Student Rights and Responsibilities (SRR)* and the *Graduate Student Rights and Responsibilities (GSRR)* documents establish the rights and responsibilities of MSU students and prescribe procedures to resolve allegations of violations of those rights through formal grievance hearings. In accordance with the SRR and the GSRR, the **Department of Plant, Soil and Microbial Sciences** has established the following Hearing Board procedures for adjudicating graduate student academic grievances and complaints. (See GSRR 5.4.)

I. JURISDICTION OF THE DEPARTMENT OF PLANT, SOIL AND MICROBIAL SCIENCES HEARING BOARD

- A. The Hearing Board serves as the initial Hearing Board for academic grievance hearings involving graduate students who allege violations of academic rights or seek to contest an allegation of academic misconduct (academic dishonesty, violations of professional standards or falsifying admission and academic records). (See GSRR 2.3 and 5.1.1.)
- B. Students may not request an academic grievance hearing based on an allegation of incompetent instruction. (See GSRR 2.2.2)

II. COMPOSITION OF THE HEARING BOARD

- A. The Program shall constitute a Hearing Board pool no later than the end of the tenth week of the spring semester according to established Program procedures. Hearing Board members serve one-year terms with reappointment possible. The Hearing Board pool should include both faculty and graduate students. (See GSRR 5.1.2 and 5.1.6.)
- B. The Chair of the Hearing Board shall be the faculty member with rank who shall vote only in the event of a tie. In addition to the Chair, the Hearing Board shall include an equal number of voting graduate students and faculty. (See GSRR 5.1.2, and 5.1.5.)
- C. The Program will train hearing board members about these procedures and the applicable sections of the GSRR. (See GSRR 5.1.3.)

III. REFERRAL TO THE HEARING BOARD:

- A. After consulting with the instructor and appropriate unit administrator, graduate students who remain dissatisfied with their attempt to resolve an allegation of a violation of student academic rights or an allegation of academic misconduct (academic dishonesty, violations of professional standards or falsifying admission and academic records) may request an academic grievance hearing. When appropriate, the Department Chair, in consultation with the Dean, may waive jurisdiction and refer the request for an initial hearing to the College Hearing Board. (See GSRR 5.3.6.2.)
- B. At any time in the grievance process, either party may consult with the University Ombudsperson. (See GSRR 5.3.2.)
- C. In cases of ambiguous jurisdiction, the Dean of The Graduate School will select the appropriate Hearing Board for cases involving graduate students. (See GSRR 5.3.5.)

- D. Generally, the deadline for submitting the written request for a hearing is the middle of the next semester in which the student is enrolled (including Summer). In cases in which a student seeks to contest an allegation of academic misconduct and the student's dean has called for an academic disciplinary hearing, the student has **10** class days to request an academic grievance to contest the allegation. (See GSRR 5.3.6.1 and 5.5.2.2.)
- E. If either the student (the complainant) or the respondent (usually, the instructor or an administrator) is absent from the university during that semester, or if other appropriate reasons emerge, the Hearing Board may grant an extension of this deadline. If the university no longer employs the respondent before the grievance hearing commences, the hearing may proceed. (See GSRR 5.4.9.)
- F. A written request for an academic grievance hearing must (1) specify the specific bases for the grievance, including the alleged violation(s), (2) identify the individual against whom the grievance is filed (the respondent) and (3) state the desired redress. Anonymous grievances will not be accepted. (See GSRR 5.1 and 5.3.6.)

IV. PRE-HEARING PROCEDURES

- A. After receiving a graduate student's written request for a hearing, the Chair of the Department will promptly refer the grievance to the Chair of the Hearing Board. (See GSRR 5.3.2, 5.4.3.)
- B. Within **5** class days, the Chair of the Hearing Board will:
 - 1. Forward the request for a hearing to the respondent and ask for a written response.
 - 2. Send the names of the Hearing Board members to both parties and, to avoid conflicts of interest between the two parties and the Hearing Board members, request written challenges, if any, within **3** class days of this notification.
 - 3. Rule promptly on any challenges, impanel a Hearing Board and send each party the names of the Hearing Board members. If the Chair of the Hearing Board is the subject of a challenge, the challenge shall be filed with the Dean of the College, or designee. (See GSRR 5.1.7.)
 - 4. Send the Hearing Board members a copy of the request for a hearing and the written response and send all parties a copy of these procedures.
- C. Within **5** class days of being established, the Hearing Board shall review the request, and, after considering all requested and submitted information:
 - 1. Accept the request, in full or in part, and promptly schedule a hearing.

2. Reject the request and provide a written explanation to appropriate parties; e.g., lack of jurisdiction. (The student may appeal this decision.)
 3. The GSRR allows the hearing board to invite the two parties to meet with the Hearing Board in an informal session to try to resolve the matter. Such a meeting does not preclude a later hearing. However, by the time a grievance is requested all informal methods of conflict resolution should have been exhausted so this option is rarely used. (See GSRR 5.4.6.)
- D. If the Hearing Board calls for a hearing, the Chair of the Hearing Board shall promptly negotiate a hearing date, schedule an additional meeting only for the Hearing Board should additional deliberations on the findings become necessary, and request a written response to the grievance from the respondent.
- E. At least **5** class days before the scheduled hearing, the Chair of the Hearing Board shall notify the respondent and the complainant in writing of the (1) time, date, and place of the hearing; (2) the names of the parties to the grievance; (3) a copy of the hearing request and the respondent's reply; and (4) the names of the Hearing Board members after any challenges. (See GSRR 5.4.7.)
- F. At least **3** class days before the scheduled hearing, the parties must notify the Chair of the Hearing Board the names of their witnesses and advisor, if any, and request permission for the advisor to have voice at the hearing. The chair may grant or deny this request. The Chair will promptly forward the names given by the complainant to the respondent and vice versa. (See GSRR 5.4.7.1.)
- G. The Chair of the Hearing Board may accept written statements from either party's witnesses at least **3** class days before the hearing. (See GSRR 5.4.9.)
- H. In unusual circumstances and in lieu of a personal appearance, either party may request permission to submit a written statement to the Hearing Board or request permission to participate in the hearing through an electronic communication channel. Written statements must be submitted to the Hearing Board at least **3** class days before the scheduled hearing. (See GSRR 5.4.9c.)
- I. Party to the grievance hearing may request a postponement of the hearing. The Hearing Board may either grant or deny the request. (See GSRR 5.4.8.)
- J. At its discretion, the Hearing Board may set a reasonable time limit for each party to present its case, and the Chair of the Hearing Board must inform the parties of such a time limit in the written notification of the hearing.
- K. Hearings are closed unless the student requests an open hearing, which would be open to all members of the MSU community. The Hearing Board may close an open hearing to protect the confidentiality of information or to maintain order. (See GSRR 5.4.10.4.)

- L. Members of the Hearing Board are expected to respect the confidentiality of the hearing process. (See GSRR 5.4.10.4. and 5.4.11.)

V. HEARING PROCEDURES:

- A. The Hearing will proceed as follows:

1. Introductory remarks by the Chair of the Hearing Board: The Chair of the Hearing Board introduces hearing panel members, the complainant, the respondent and advisors, if any. The Chair reviews the hearing procedures, including announced time restraints for presentations by each party and the witnesses, and informs the parties if their advisors may have a voice in the hearings and if the proceedings are being recorded. Witnesses shall be excluded from the proceedings except when testifying. The Chair also explains:
 - In academic grievance hearings in which a graduate student alleges a violation of academic rights, the student bears the burden of proof.
 - In hearings in which a graduate student seeks to contest allegations of academic misconduct, the instructor bears the burden of proof.
 - All Hearing Board decisions must be reached by a majority of the Hearing Board, based on a "clear and convincing evidence." (See GSRR 8.1.18.)(See GSRR 5.4.10.1 and 8.1.18.) For various other definitions, see GSRR Article 8.)
2. If the complainant fails to appear in person or via an electronic channel at a scheduled hearing, the Hearing Board may either postpone the hearing or dismiss the case for demonstrated cause. (See GSRR 5.4.9a.)
3. If the respondent fails to appear in person or via an electronic channel at a scheduled hearing, the Hearing Board may postpone the hearing, hear the case in the respondent's absence. (See GSRR 5.4.9-b.)
4. If the respondent is absent from the University during the semester of the grievance hearing or no longer employed by the University before the grievance procedure concludes, the hearing process may still proceed. (See GSRR 5.3.6.1.)
5. To assure orderly questioning, the Chair of the Hearing Board will recognize individuals before they speak. All parties have a right to speak without interruption. Each party has a right to question the other party and to rebut any oral or written statements submitted to the Hearing Board. (See GSRR 5.4.10.2.)
6. Presentation by the Complainant: The Chair recognizes the complainant to present without interruption any statements relevant to the complainant's

case, including the redress sought. The Chair then recognizes questions directed at the complainant by the Hearing Board, the respondent and the respondent's advisor, if any.

7. Presentation by the Complainant's Witnesses: The Chair recognizes the complainant's witnesses, if any, to present, without interruption, any statement directly relevant to the complainant's case. The Chair then recognizes questions directed at the witnesses by the Hearing Board, the respondent, and the respondent's advisor, if any.
8. Presentation by the Respondent: The Chair recognizes the respondent to present without interruption any statements relevant to the respondent's case. The Chair then recognizes questions directed at the respondent by the Hearing Board, the complainant, and the complainant's advisor, if any.
9. Presentation by the Respondent's Witnesses: The Chair recognizes the respondent's witnesses, if any, to present, without interruption, and statement directly relevant to the respondent's case. The Chair then recognizes questions directed at the witnesses by the Hearing Board, the complainant, and the complainant's advisor, if any.
10. Rebuttal and Closing Statement by Complainant: The complainant refutes statements by the respondent, the respondent's witnesses and advisor, if any, and presents a final summary statement.
11. Rebuttal and Closing Statement by Respondent: The respondent refutes statements by the complainant, the complainant's witnesses and advisor, if any, and presents a final summary statement.
12. Final questions by the Hearing Board: The Hearing Board asks questions of any of the participants in the hearing.

VI. POST-HEARING PROCEDURES

A. Deliberation:

After all evidence has been presented, with full opportunity for explanations, questions and rebuttal, the Chair of the Hearing Board shall excuse all parties to the grievance and convene the Hearing Board to determine its findings in executive session. When possible, deliberations should take place directly following the hearing and/or at the previously scheduled follow-up meeting. (See Section IV.D above.)

B. Decision:

1. In grievance (non-disciplinary) hearings involving graduate students in which a majority of the Hearing Board finds, based on a "clear and

convincing evidence," that a violation of the student's academic rights has occurred, and that redress is possible, it shall recommend an appropriate remedy to the Department Chair or School Director. Upon receiving the Hearing Board's recommendation, the Department Chair or School Director shall implement an appropriate remedy, in consultation with the Hearing Board, within **3** class days. If the Hearing Board finds that no violation of academic rights has occurred, it shall so inform the Chair or Director. The Chair of the Hearing Board shall promptly forward copies of the final decision to parties and the University Ombudsperson. (See GSRR 5.4.11.)

2. In grievance (non-disciplinary) hearings involving graduate students in which the Hearing Board serves as the initial hearing body to adjudicate an allegation of academic dishonesty and, based on a "clear and convincing evidence," the Hearing Board finds for the student, the Hearing Board shall recommend to the Department Chair or School Director that the penalty grade be removed, the Academic Dishonesty Report be removed from the student's records and a "good faith judgment" of the student's academic performance in the course take place. If the Hearing Board finds for the instructor, the penalty grade shall stand and the Academic Dishonesty Report regarding the allegation will remain on file, pending an appeal, if any to the College Hearing Board within **5** class days of the Hearing Board's decision. If an academic disciplinary hearing is pending, and the Hearing Board decides for the instructor, the graduate student's disciplinary hearing before either the College Hearing Board or the Dean of The Graduate School would promptly follow, pending an appeal, if any, within **5** class days. (See GSRR 5.5.2.2 and 5.4.12.3)

C. Written Report:

The Chair of the Hearing Board shall prepare a written report of the Hearing Board's

findings, including recommended redress or sanctions for the complainant, if applicable, and forward a copy of the decision to the appropriate unit administrator within **3** class days of the hearing. The report shall indicate the rationale for the decision and the major elements of evidence, or lack thereof that support the Hearing Board's decision. The administrator, in consultation with the Hearing Board, shall then implement an appropriate remedy. The report also should inform the parties of the right to appeal within **5** class days following notice of the decision, or **5** class days if an academic disciplinary hearing is pending. The Chair shall forward copies of the Hearing Board's report and the administrator's redress, if applicable, to the parties involved, the responsible administrators, the University Ombudsperson and the Dean of The Graduate School. All recipients must respect

the confidentiality of the report and of the hearing board's deliberations resulting in a decision. (See GSRR 5.4.12 and 5.5.2.2)

VII. APPEAL OF THE HEARING BOARD DECISION:

- A. Either party may appeal a decision by the Hearing Board to the College Hearing Board for cases involving (1) academic grievances alleging violations of student rights and (2) alleged violations of regulations involving academic misconduct (academic dishonesty, professional standards or falsification of admission and academic records.) (See GSRR 5.4.12.)
- B. All appeals must be in writing, signed and submitted to the Chair of the College Hearing Board within **5** class days following notification of the Hearing Board's decision. While under appeal, the original decision of the Hearing Board will be held in abeyance. (See GSRR 5.4.12, 5.4.12.2 and 5.4.12.3.)
- C. A request for an appeal of a Hearing Board decision to the College Hearing Board must allege, in sufficient particularity to justify a hearing, that the initial Hearing Board failed to follow applicable procedures for adjudicating the hearing or that findings of the Hearing Board were not supported by the "clear and convincing evidence." The request also must include the redress sought. Presentation of new evidence normally will be inappropriate. (See GSRR 5.4.12.1, 5.4.12.2 and 5.4.12.4.)

VIII. RECONSIDERATION:

If new evidence should arise, either party to a hearing may request the appropriate Hearing Board to reconsider the case within **30** days upon receipt of the hearing outcome. The written request for reconsideration is to be sent to the Chair of the Hearing Board, who shall promptly convene the Hearing Board to review the new material and render a decision on a new hearing. (See GSRR 5.4.13.)

IX. FILE COPY:

The Chair of the Department shall file a copy of these procedures with the Office of the Ombudsperson and with the Dean of The Graduate School. (See GSRR 5.4.1.)