

GRADUATE PROGRAM

2020-2021

Crop and Soil Sciences

Department of Plant, Soil & Microbial Sciences



MICHIGAN STATE

U N I V E R S I T Y

Department of Plant, Soil, and Microbial Sciences
CROP AND SOIL SCIENCES PROGRAM
GRADUATE STUDENT HANDBOOK

TABLE OF CONTENTS

Revised 9-3-2020

I. GRADUATE EDUCATION: An Overview.....	1
Dual Enrollment by Undergraduates.....	3
II. ELECTRONIC SUBMISSION OF THESES AND DISSERTATIONS.....	4
III. THESES AND DISSERTATION DEFENSE DEADLINES.....	5
IV.. EXIT SURVEYS.....	5
V. THE MASTER'S PROGRAM	
A. Introduction	6
B. Selection of Major Professor.....	6
C. Guidance Committee.....	6
D. Program of Study	7
Plan A.....	7
Plan B.....	8
E. SPEAK/Interview Guidelines.....	8
F. Teaching/Extension Requirement.....	9
G. Responsible Conduct of Research (RCR).....	10
H. Professional Development, Scientific Writing and Presentation Skills Requirement	11
I. Annual Evaluation	12
J. Seminar Requirement	13
K. Master's Degree Evaluation Procedure.....	13
L. Application to Graduate.....	13
M. Master's Degree Requirements and Due Dates	14
VI. THE DOCTORAL PROGRAM	
A. Introduction	15
B. Selection of Major Professor	15
C. Guidance Committee	16

D. Program of Study	16
E. SPEAK/Interview Guidelines	17
F. Teaching/Extension Requirement.....	17
G. Responsible Conduct of Research (RCR).....	19
H. Professional Development, Scientific Writing and Presentation Skills Requirement	20
I. Seminar(s) Requirement	21
J. Annual Evaluation	21
K. Proposal Requirement.....	21
L. Comprehensive Examinations	22
M. Doctoral Degree Evaluation	24
N. Application to Graduate.....	24
O. Doctoral Degree Requirements and Due Dates	25
VII. Mentoring of Graduate Students	26
VIII. Student Conduct and Conflict Resolution	27
IX. Responsible Conduct Of Research (RCR)	27
X. Graduate Assistantships.....	28
XI. University Policy About Dissemination of Graduate Students' Research.....	28
XII. University Resources	29

**Graduate Student Academic Grievance Hearing Procedures
for the Department of Plant, Soil, and Microbial Sciences 31**

PREFACE

This document represents the Plant, Soil, and Microbial Sciences department's position on graduate education policy for the graduate program in Crop and Soil Sciences. It was developed after extended discussion and consultation among faculty and students. The document's most recent revision occurred in August 2020.

Appeals concerning interpretation of this document may be referred to the CSS Director of Graduate Programs and, ultimately, to the Department Chairperson.

Your major professor plays a central role in planning your graduate education. The relationship between you and your major professor should be founded on mutual respect and an understanding of what constitutes graduate education. Soon after arrival, you should meet with your major professor to establish program requirements such as course scheduling, program planning and research. There should be an understanding of project responsibilities, vacation and sick leave, and a tentative timetable for program completion.

I. 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 total 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/>.

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 with regard to 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

Dual Enrollment by Undergraduates

Dual enrollment provides an opportunity for academically talented undergraduate students to enroll in graduate courses and conduct research towards a graduate degree while completing the last two years of their bachelor's degree(s) programs.

To be considered for dual enrollment, the student must first file an Application for Admission to Graduate Study, as indicated under Application Procedure in this section of the catalog and be admitted into a graduate program. After admission to a graduate program in regular status, the student must complete a Request for Dual Enrollment Status form, available from the Office of the Registrar. A student who is accepted for dual enrollment can be admitted to both the undergraduate and graduate degree program upon reaching junior standing. Admission to graduate study must be approved before work to apply toward a graduate degree program is undertaken. Credits completed prior to admission to graduate study *cannot* be applied toward a graduate degree program.

Within the first semester of dual enrollment, the student's graduate degree program major professor must be identified and the appropriate graduate degree guidance committee established. The major professor and committee assist the student in developing a program of study for the graduate degree.

A student will be classified as an undergraduate until the minimum number of credits required for a first bachelor's degree is completed. When the student is classified as a graduate student, eligibility begins for graduate assistantships, other forms of graduate student financial aid, or those services and prerogatives normally reserved for graduate students.

A student pays undergraduate tuition up to the total number of credits required for a first bachelor's degree(s) in his/her major(s), at which point graduate tuition is applicable and students are eligible for graduate fellowships and assistantships. If approved by the graduate program, a maximum of nine credits, at the 400-level or higher, from the undergraduate degree program can be applied toward the requirements for the graduate degree program for credits completed after admission to graduate study.

In semesters when the student is dual enrolled, federal financial aid designated for the first bachelor's degree (Federal Pell Grant and Federal Supplemental Educational Opportunity Grant (SEOG)) will be determined based upon the number of undergraduate credits only. Awards will be manually adjusted as necessary once the student is registered. Students are not eligible for financial aid as a graduate student until the semester after the minimum number of credits required for the first bachelor's degree have been earned.

Applicants with adequate academic backgrounds are admitted as regular status. Students with subject matter deficiencies will be admitted as provisional status and will be changed to regular status when the conditions of provisional admission have been met, e.g., collateral courses have been completed and/or specified grades have been attained.

II. ELECTRONIC SUBMISSIONS OF THESES & DISSERTATIONS

Please note: MSU **only accepts** electronic theses and dissertations submitted via ProQuest. The instructions for electronic submissions are available from <http://grad.msu.edu/etd/>.

The MSU library may accept supplementary materials approved by the thesis/dissertation committee chair per their collection criteria. The Graduate School does not review these materials for formatting requirements. Questions about submission of these materials to the MSU library should be directed to the Assistant Director for Digital Information, currently Shawn Nicholson (nicho147@mail.lib.msu.edu).

The target date for the **FINAL APPROVAL** of an electronic Thesis or Dissertation to the Graduate School for graduating the semester of that submission is FIVE working days prior to the first day of classes for the next semester (see future target dates below). **Be aware that a submission via ProQuest does not mean that the document has been ACCEPTED.** The review process is interactive and final approval can take anywhere from a few hours to weeks, depending upon the extent of the necessary revisions and how diligent the author is when making the necessary revisions.

Electronic Submission's Approval Target Dates:

Fall 2020 – December 18, 2020

Spring 2021 – May 12, 2021

Summer 2021 – August 25, 2021

Fall 2021 – December 20, 2021

Spring 2022 – May 11, 2022

Summer 2022 - August 24, 2022

Fall 2022 - December 19, 2022

Spring 2023 – May 10, 2023

Summer 2023 - August 23, 2023

Graduation on the semester of the electronic submission is only guaranteed if the document is APPROVED on or before the target date for that semester

III. THESES AND DISSERTATION DEFENSE DEADLINES

Students may defend their thesis/dissertation anytime during each semester, including winter break and spring break. If a student defends after the target dates listed in II, the conferral of the degree will be the following semester. Students do not need to enroll in the semester in which the degree is conferred; students on graduate assistantships must be enrolled for 1 credit in the semester of the thesis/dissertation defense.

IV. EXIT SURVEYS

A short online exit survey for all students graduating with a Plan A or Plan B masters or with a Doctoral degree was introduced in May 2011. Only students who have applied for graduation will have access to the survey. 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.

Instructions for students:

- Access the following website:
 - Doctoral Students: <https://www.egr.msu.edu/doctoral/survey/>
 - Master's Students: <https://www.egr.msu.edu/masters/survey/>
- Enter your MSU NetID (Login Name) and Password
- Complete all the items on the survey. When finished, click **Submit**.

V. THE MASTER'S PROGRAM

A. Introduction

The master's degree program in Crop and Soil Sciences recognizes that the background and post-degree plans of students vary widely. Students who plan to acquire a Ph.D. degree should develop their master's program as an integral part of their total graduate program. Students enrolled in interdisciplinary programs such as Plant Breeding and Genetics are required to fulfill all degree requirements for both Crop and Soil Sciences and the interdisciplinary program. It is the student's responsibility to learn about relevant requirements.

B. Selection of a Major Professor

Students are not admitted to a graduate program in Crop and Soil Sciences until a tenure-system (or approved adjunct) faculty member has agreed to serve as major professor. If a student's educational objectives change at a later date, he/she can request assignment to another major professor. Requests to change major professor, however, may affect a student's funding. Requests for the proposed change should be submitted to the Director of Graduate Programs for action. Similarly, a major professor may resign from this responsibility, in which case, the Director of Graduate Programs will work with others in the department to find another major professor.

C. Guidance Committee

It is the responsibility of the student, in consultation with the major professor, to form a guidance committee at the earliest possible date, but not later than the end of the first semester of study after completion of provisional requirements, if any. The guidance committee must consist of at least three members of the regular faculty. The major professor serves as chairperson of the committee. At least one member of the committee must be from a department other than Plant, Soil and Microbial Sciences, unless a special exemption is granted by the CSS Graduate Program Director. The primary function of the guidance committee is to provide direction and counsel and to oversee the progress of the student. This committee will also function as the examining committee (see Section II K.)

The guidance committee should meet during the first semester of study following completion of any provisional requirements. In accordance with university regulations, either the student or the major professor must take minutes at each committee meeting, and both the major professor and the student should retain a copy of the minutes in their files. It is recommended that each student remain in contact with all members of his/her committee throughout the M.S. program. It is advisable to convene a committee meeting during the third or fourth semester to discuss research progress and future goals.

Should the student's major professor leave the university, or become unable to serve, the CSS Department Chairperson and the CSS Graduate Program Director will work with the student and the remaining committee members to resolve the situation, usually by appointing a new committee member and designating a new major professor.

D. Program of Study

In keeping with the department's philosophy of allowing maximum flexibility for individual situations, two programs of study, designated as Plan A and Plan B, are offered. These plans differ primarily in their research component. Both Plan A and Plan B require a minimum of 30 semester credits, including credits to meet the requirement for Professional Development, Scientific Writing and Presentation Skills (see Section F). In addition, both Plan A and Plan B require a final oral (certifying) examination and the presentation of a seminar.

Please note the MSU grading policy for “Deferred” grades: Except for CSS 899 and CSS 999, students who receive a DF (Deferred) grade in course must complete the required work and a grade must be reported within 6 months with the option of a single six-month extension. If the required work is not completed within the time limit, the DF will become U-Unfinished, and the student's grade will be changed to DF/U under the numerical system. Again, this rule does not apply to graduate thesis or dissertation work.

1. Plan A

a. Plan A consists of course work, research, thesis, seminar, teaching/extension experience, and certifying examination. It is recommended for students whose career interests and plans suggest the need for research experience, and for all students who plan to pursue a Ph.D.. The thesis represents from 6 to 10 semester credits of research earned in CSS 899. Thesis research must be original research which will contribute to the body of knowledge of the student's disciplinary topic.

b. In Plan A, a minimum of 20 semester course credits with a grade point average of at least 3.0 is required. Collateral courses and research credits are not included in computing the grade point average. A total of 30 semester credits (some combination of 20 to 24 semester course credits and 6 to 10 semester research credits) is required. Up to 9 semester credits may be transfer credits from graduate programs at other universities. Credits earned at MSU in Class 5 Special Program Undergraduate status do not count as graduate credit in a degree program. (cf. Graduate Studies)

c. More than half of the credits of the total required for a master's degree must be taken in courses at the 800 and 900 levels except as specifically exempted by the dean of the college.

d. The course program is developed jointly by the student and major professor. The program must be approved by the student's guidance committee and the Department Chairperson, or his/her designee, usually the Director of Graduate Programs, and the Dean of the College. This is accomplished by completing a Proposed Academic Program form, which should be submitted to the Graduate Programs Office as early as possible and prior to the completion of two semesters.

e. Each student in Plan A is required to submit an electronic copy of the dissertation to the Office of the Graduate School. The major professor has the option of requesting a bound copy.

2. Plan B

- a. Plan B consists of course work, seminar, teaching/extension experience, and a certifying examination. In addition, Plan B requires a research paper or special problems paper(s) that demonstrate the student's ability to define a significant problem, choose and apply appropriate analytical techniques, and interpret the results in a meaningful way.
 - b. In Plan B, a total of 30 semester course credits with a grade point average of at least 3.0 is required. Students may earn up to 6 semester credits in CSS 890 for their research paper or special problems paper(s). These credits are computed in the overall grade point average. Students in Plan B do not enroll in CSS 899.
 - c. More than half of the credits of the total required for a master's degree must be taken in courses at the 800 and 900 levels except as specifically exempted by the dean of the college.
 - d. The course program is jointly developed by the student and major professor. The program must be approved by the student's guidance committee and the Department Chairperson, or his/her designee, usually the Director of Graduate Programs, and the Dean of the College. This is accomplished by completing a Proposed Academic Program form which should be submitted to the Graduate Programs Office as early as possible and prior to the completion of two semesters.
3. Normally, only 400 level and higher level courses are accepted for graduate credit. However, the following Physical Chemistry courses maybe taken for graduate credit: CEM 383 and 384.

E. SPEAK/INTERVIEW Guidelines

1. If a student whose first language is not English plans to serve as a teaching assistant, he/she must pass the SPEAK test. If the student receives a score of less than 50 on SPEAK, he/she has not met the University's minimum standard for serving as an International Teaching Assistant. He/she must wait until the next semester to take SPEAK again. SPEAK is basically used as a screening process. If the SPEAK test is failed, the English Language Center (ELC) prefers that the student take the English Course (10 weeks in Spring/Fall semester) and then take the oral test called INTERVIEW, provided the student has successfully completed ENG 097. Once a student opts to take INTERVIEW, he/she does not go back and take SPEAK again. (*first failure*)
2. If the student fails SPEAK or INTERVIEW a second time, he/she can wait 3-4 weeks (end of the Spring or Fall semester) and take the test again. However, the student should get further English instruction during the 3-4 week period.
3. If the student fails SPEAK or INTERVIEW a third time, an ad-hoc committee will meet with the student to evaluate the student's speaking ability and design a course of action.

F. Teaching/Extension Requirement

1. The Crop and Soil Sciences graduate program requires all graduate students to participate in a meaningful teaching or extension experience and to exhibit proficiency in professional development, scientific writing and presentation skills as a part of their graduate academic programs. While there is no minimum number of hours required, the teaching/extension requirement is to be an experience that is beneficial and relevant to the education of each student. (Please see examples of Teaching/Extension activities listed below.) Obtain the form on the PSM web site. A teaching/extension activity is part of the student's academic program and helps prepare her/him for making presentations to varying audiences in the future. Because this is a professional development requirement, and because of the manifold ways in which students may fulfill the requirement, students are not appointed as TAs as referenced in the MSU-GEU contract (<http://www.geuatmsu.org/>).

a. To demonstrate English proficiency, students whose first language is not English are required to pass an on-campus SPEAK or INTERVIEW test prior to serving as a TA or participating in an extension experience. (See SPEAK Guidelines above.) This requirement must be fulfilled within the first year of the student's program or after academic provisions have been completed.

b. All domestic, and students whose first language is not English, are required by the University to complete the MSU Teaching Assistant Orientation. The orientation is offered prior to the start of the fall semester. Students should attend the orientation in the academic year they plan to serve as a TA.

c. After completing the on-line Teaching/Extension form, students must obtain signature approval of the major professor and the Director of Graduate Programs **before** serving as a Teaching Assistant and/or Extension Assistant.

Teaching Activities

A minimum of three of these activities should be completed to qualify as a meaningful teaching experience:

- Attend as many classes as possible, at the discretion of the professor.
- Develop and present at least one lecture/ demonstration-discussion before the entire class.
- Coordinate field and/or laboratory activities and possibly develop new exercises to be used a field or lab activities.
- Contribute to the grading and recording of students' homework and exams.
- Contribute questions to be used on exams and homework.
- Hold office hours and/or help sessions.
- Time commitment: (assume 3 hours prep for each contact hour;
Example: a student responsible for a 2 hour lab =
2 contact hour
6 prep hours
3 hour lecture
11 hours + misc. time
(Misc. time to include grading, exam question prep, assisting student, etc.)

Extension Activities

A person to person requirement should be part of the experience. The student should either present a session utilizing the teaching aid or publication developed or interact with clientele in some other way. A list of suggested activities follows.

- Write and publish an extension bulletin
- Develop and teach an Extension Short Course for a specific audience
- Develop and coordinate a field day or a field tour for a specific audience.
- Develop an exhibit to be used at Extension activities (person to person interaction).
- Develop a PowerPoint presentation for use by Extension educators, agriscience teachers, or other agency personnel (person to person interaction).
- Develop a video on a specific topic for a specific audience (person to person interaction.)
- Develop and initiate a field demonstration plot for use by Extension educators and others.

Completing the Teaching/Extension Requirement

1. All students (domestic and international) must fill out the top part of the **Graduate Teaching/Extension Requirement** form, which constitutes a description of the proposed teaching and extension experience. The appropriate instructor/specialist, the student's major professor, and the Director of CSS Graduate Programs must approve the proposed teaching/extension experience in advance. Email the Graduate Secretary for the Teaching/Extension Requirement form.

2. In circumstances where the guidance committee judges that a student has had adequate teaching/extension experience, the major professor may petition for a waiver of this requirement. *The petition must be submitted in writing to the Graduate Programs Director at least two semesters before the candidate plans to graduate.*

G. Responsible Conduct of Research (RCR)

The conduct of research and creative activities by faculty, staff, and students is central to the mission of Michigan State University and is an institutional priority. Integrity in research and creative activities is based not only on sound disciplinary practice but also on a commitment to basic personal values such as fairness, equity, honesty, and respect. The foundation underlying all research is uncompromising honesty in presenting one's own ideas in research proposals, in performing one's research, and in reporting one's data. Misconduct in research, such as falsification and plagiarism, is grounds for termination.

The Research Integrity Office is an additional source of information: <http://www.rio.msu.edu>

The Graduate School research integrity webpage is: <http://grad.msu.edu/researchintegrity/>.

The Department of Plant, Soil, and Microbial Sciences requires all students to meet the minimum MSU requirements for Responsible Conduct of Research as follows:

1) Year 1

All graduate professional students will complete 3 CITI online modules within the first year of enrollment in their program. (<https://grad.msu.edu/rcr>)

- Authorship
- Plagiarism
- Research Misconduct

2) Discussion-Based Training

All graduate professional students must complete a minimum of 6 hours of discussion-based training prior to receiving their degrees. These hours must be completed prior to taking comprehensive examinations. CSS 880 counts for 6 hours of discussion-based training.

3) Year 2

3 additional MSU online training modules must be completed within the first 2 years of enrollment. (<https://grad.msu.edu/rcr>) You may choose three from the following list:

- CITI Collaborative Research
- CITI Conflicts of Interest
- CITI Data Management
- CITI Financial Responsibility
- CITI Mentoring
- CITI Peer Review
- IACUC Tutorial for Animal Care Training
- Human Research Protection/ IRB Certification
- Rigor and Reproducibility Course

H. Professional Development, Scientific Writing and Presentation Skills Requirement

The Crop & Soil Sciences graduate program requires that both MS and PhD students exhibit proficiency in professional development, scientific writing, and presentation skills. The faculty recognizes that these skills can be acquired through formal coursework and experience. The Professional Development, Scientific Writing and Presentation Skills Requirement provides the guidance committee flexibility in identifying the course(s) that a given student should complete to satisfy the requirement. The course(s) identified by the guidance committee must appear on their academic Program of Study. A minimum of 1 credit is required. Current Course Options are:

CSS 880 Scientific Communication and Professional Development - 1 credit - Spring

Interactive discussion and exercises designed to prepare students to become successful professionals. Content will focus on the skills and strategies for success in STEM careers at the graduate level and beyond. Course content will address three main topics: 1. Career management & leadership skills 2. Scientific communication 3. Applying & interviewing for your next position

HRT 860 Scientific Writing Workshop - 1 credit - Spring

Development of scientific writing skills

GLG 850 From Research to Publication – 3 credits – Fall, Spring

An overview of the process for moving research from data/theory to publication including ethics in publishing, identifying appropriate journals, writing manuscripts, and the publication process.

ENT 890 Independent Study: Scientific Communication - 2 credits - Fall

Produce a journal-quality scientific article, thesis/dissertation chapter or grant proposal by writing a document section-by-section, using the peer-review process, and incorporating feedback. Become familiar with other aspects of scientific publication and communication to improve presentation and online communication skills.

EGR 891 Technical Writing for Engineers and Scientists - 3 credits - Fall, Spring

Designed for graduate students to equip them to write technical documents in MS Word and LaTeX.

PLB 843 Forum in Computational and Plant Sciences – 1 credit – Fall, Spring

Professional development focused on diverse modes of communication in support of interdisciplinary science with an emphasis on plant and computational sciences.

PLP 894 Seminar in Plant Pathology - 1 credit - Fall, Spring

Review, organization, analysis and oral presentation of research

I. Annual Evaluation and Student Records

Each year prior to Fall semester students are provided an academic update to keep them informed of their academic progress. It is then the responsibility of the student to complete an evaluation form in late fall or early spring semester and review the form with his/her major advisor. **An on-line evaluation form is available to students one month prior to Spring semester.** Students are evaluated on both the completion of program requirements and the progress made on assistantship and research responsibilities. The student must meet with their major advisor, discuss their progress, complete the form, sign the form, and then return the form to the CSS Graduate Office by February 1. If the major professor is not available to review the student's evaluation, the major advisor must appoint a substitute in advance.

All evaluation forms will be reviewed by the Director of Graduate Programs or by the GPC Chairperson if the Director is unavailable. Students will be notified in writing if they are not making normal academic progress. If the major professor deems that normal progress is not being made, the major professor, in consultation with the student, will develop a written plan of action, which must then be approved by the CSS Graduate Programs Director.

Evaluation forms, programs of study forms, application and admission materials, degree requirement completion forms, lists of honors and recognition, and other relevant student records, will be filed in the student's permanent file in the CSS Graduate Programs Office. A student may access her/his individual records by submitting a written request to the Graduate Programs secretary. Students have the right to challenge the accuracy of their files by writing a letter that is placed in the file.

J. Seminar Requirement

Each M.S. student is required to present one oral seminar on his/her research activities or the contents of the special problem paper. This seminar is open to anyone interested in attending and is presented immediately prior to the final oral defense. **Seminar notices should be completed by the student and sent electronically to the CSS Graduate Programs Office at least 1 week prior to the seminar.** The Result of the Final Oral Defense form is available on the PSM forms web site.

K. Master's Degree Evaluation Procedure

All M.S. students are required to successfully complete a final oral certifying examination. The oral examination is considered to be an overall examination of the student's qualifications for the M.S. degree. Since M.S. degree programs may vary markedly between students, the oral examination will also vary, but in each case the examination will attempt to determine if the candidate has achieved (a) an acceptable level of competence in the general area of crop and/or soil science and related fields, and (b) a comprehensive knowledge of his/her major area of specialization. In addition to the oral examination, a written examination may be given by and at the discretion of each member of the guidance committee.

For students in Plan A, the oral examination must include a defense of the thesis but may also include course work-related questions. Plan A students should provide members of the examining committee with a copy of the thesis at least two weeks before the oral examination. For students in Plan B, the oral examination may include a defense of the special problem paper and/or course work-related questions.

While a unanimous report is usual, a two-thirds majority vote to pass is sufficient for successful completion of the examination requirement. Each member of the guidance committee will sign the Result of Final Defense form, which must be forwarded to the Director of Graduate Programs, and then to the Dean of the College.

Each student is expected to submit an electronic copy of the thesis to the Office of the Graduate School.

L. Application to Graduate

During the semester in which you plan to graduate you will need to obtain an Application to Graduate form. It is available at the following web site: <http://www.reg.msu.edu/StuForms/GradApp/GradApp.asp>. Be sure to check deadlines in the schedule of courses catalog. Thesis and Dissertation information can be found online at: <http://grad.msu.edu/thesisdissertation/>. In addition you may consider visiting Career Services Network web site at: <http://careernetwork.msu.edu/>.

M. Master's Degree Requirements and Due Dates

Requirements

Due Date

Selection of Guidance Committee

Prior to completion of first semester

Proposed Academic Program (Form Required)

Prior to completion of second semester

SPEAK/INTERVIEW test - International Students
Must pass before the end of the first semester in CSS if planning to TA.

Prior to teaching/extension experience.
(Check schedule with English Testing Office or Graduate Program Staff).

TA Seminar on College Teaching

Attend during prior to serving as TA

Responsible Conduct of Research training

In Year 1 and Year 2

Teaching/Extension Requirement
Must have prior approval (Form Required)

The semester before the teaching/extension experience

Professional Development, Scientific Writing and Presentation Skills Requirement

Course(s) must be listed on the Academic program of Study

Application to Graduate (Form Required)

See the University Calendar*

Final Oral Defense (Form Required)

See the University Calendar*

Final Draft of Thesis to Graduate School

See the University Calendar*

<https://reg.msu.edu/ROInfo/Calendar/Academic.aspx>

VI. THE DOCTORAL PROGRAM

A. Introduction

Admission to the CSS doctoral program is open to students with master's or bachelor's degrees. It is usually desirable, but not mandatory, that a student earn a master's degree before proceeding to a doctoral program.

Students completing a master's degree in Crop and Soil Sciences at Michigan State University may apply for a doctoral program in Crop and Soil Sciences by requesting that the major professor submit a letter of recommendation/commitment to the Graduate Programs Committee. The request requires approval of the department and the College.

The doctoral program has flexibility to accommodate the diverse interests and talents of the future scientists being educated in the department. This flexibility implies responsibility for the student to make an early selection of a major professor and, in consultation with the guidance committee, an early selection of a program of courses and a research area. Changes in academic programs may be made by submitting a Change in Academic Program form to the Director of CSS Graduate Programs for approval.

All doctoral programs in Crop and Soil Sciences must include course work, a teaching/extension experience, completion of the professional development, scientific writing and presentation skills requirement, a written research proposal, research and dissertation, comprehensive examination, seminar, and final oral examination. Students enrolled in interdisciplinary programs such as Plant Breeding, Genetics and Biotechnology or Environmental Toxicology, and students enrolled in a dual major graduate program in Molecular Plant Sciences, are required to fulfill all degree requirements for both Crop and Soil Sciences and the interdisciplinary program or dual graduate major. It is the student's responsibility to be informed about relevant requirements.

Each student working toward a Doctor of Philosophy degree must conduct original research upon which a dissertation that makes a significant contribution to knowledge is to be prepared and published.

Definition of "full time status:"

Full time status for doctoral students is defined as a minimum of 1 credit for those students who:

- a. have successfully completed all comprehensive examinations and are actively engaged in dissertation research: or
- b. are involved in department-approved off-campus fieldwork related to preparation of their dissertation.

B. Selection of Major Professor

Students are not admitted to a graduate program in Crop and Soil Sciences until a tenure-system (or approved adjunct) faculty member has agreed to serve as major professor. If a student's educational objectives change at a later date, he/she can request assignment to another major professor. Requests to change major professor, however, may affect a student's funding. Requests for the proposed change should be submitted to the Director of Graduate Programs for action. Similarly, a major professor may resign from this responsibility, in which case, the Director of Graduate Programs will work with others

in the department to find another major professor. In certain cases, someone other than the major professor may act as the dissertation supervisor. Joint supervision is also possible. Should the student's major professor leave the university, or become unable to serve, the CSS Department Chairperson and the CSS Graduate Program Director will work with the student and the remaining committee members to resolve the situation, usually by appointing a new committee member and designating a new major professor.

C. Guidance Committee

It is the responsibility of the student, in consultation with the major professor, to form a guidance committee at the earliest possible date, but not later than the second semester of study following completion of provisional requirements, if any. The guidance committee must consist of at least four members of the faculty. The major professor serves as chairperson of the committee. At least two committee members must be from the Department of Plant, Soil, and Microbial Sciences, and at least one member of the committee must be from another department. The primary function of the guidance committee is to provide direction and counsel and to oversee the progress of the student. The guidance committee also has final responsibility for determining whether the student has met the standards for the Ph.D. degree. (see Section III. M.) **** The student must report the membership of the guidance committee using Grad Plan (<https://login.msu.edu/?App=J3205>).**

The guidance committee should meet as early as possible, but not later than the end of the second semester following completion of any provisional requirements such as English language classes. In accordance with university regulations, either the student or the major professor must take minutes at each committee meeting, and both the major professor and the student should retain a copy of the minutes in their files. It is recommended that each student remain in contact with all members of his/her committee throughout the doctoral program. In most cases, it is advisable to convene a committee meeting at least once a year to discuss research progress and future goals.

D. Program of Study

1. The program of courses is developed by the student and major professor in consultation with the guidance committee. Individual course programs vary greatly between students depending on each student's specific interests and prior education and experience. The course program should strengthen the student's overall understanding of crop and/or soil sciences and provide greater depth in the student's specific area of interest. The course program must be reviewed and approved by the student's guidance committee. Following committee approval, **the student enters the Guidance Committee membership and the Program of Study using the appropriate form on Grad Plan (<https://login.msu.edu/?App=J3205>).** This process must be completed prior to completion of two semesters. University regulations require that each Ph.D. student register for a minimum of 24 semester credits of Dissertation Research (CSS 999), but no more than 36 for the duration of their doctoral program. In addition, it is strongly recommended that each Ph.D. student complete at least 24 semester credits of course work with greater than 50% of coursework at the 800 level.

MSU grading policy for “Deferred” grades: Except for CSS 899 and CSS 999, students who receive a DF (Deferred) grade in course must complete the required work and a grade must be reported within 6 months with the option of a single six-month extension. If the required work is not completed within the time limit, the DF will become U-Unfinished, and the student's grade will be changed to DF/U under the numerical system. Again, this rule does not apply to graduate thesis

or dissertation work.

2. A grade point average of 3.0 in the non-research courses is required before the student can be certified for graduation. Collateral courses used to meet minimum requirements for undertaking the planned graduate study are not included in this calculation.
3. Normally, only 400 level or higher level courses are accepted for graduate credit. However, the following Physical Chemistry courses may be taken for graduate credit: CEM 383 and 384.

The department has no language or language substitution requirements.

E. SPEAK/INTERVIEW Guidelines

1. If a student whose first language is not English plans to serve as a teaching assistant and teach a section of a course, s/he must pass the SPEAK test. If the student receives a score of less than 50 on SPEAK, he/she has not met the University's minimum standard for serving as an International Teaching Assistant. He/she must wait until the next semester to take SPEAK again. SPEAK is basically used as a screening process. If the SPEAK test is failed, the English Language Center (ELC) prefers that the student take the English Course (10 weeks in Spring/Fall semester) and then take the oral test called INTERVIEW, provided the student has successfully completed ENG 097. Once a student opts to take INTERVIEW, he/she does not go back and take SPEAK again. (*first failure*)
2. If the student fails SPEAK or INTERVIEW a second time, he/she can wait 3-4 weeks (end of the Spring or Fall semester) and take the test again. However, the student should get further English instruction during the 3-4 week period.
3. If the student fails SPEAK or INTERVIEW a third time, an ad-hoc committee will meet with the student to evaluate the student's speaking ability and design a course of action.

F. Teaching/Extension Requirement

The Crop and Soil Sciences graduate program requires all graduate students to participate in a meaningful teaching or extension experience and to exhibit proficiency in both writing and general presentation skills as a part of their graduate academic programs. While there is no minimum number of hours required, the teaching/extension requirement is to be an experience that is beneficial and relevant to the education of each student. (Please see examples of Teaching/Extension activities listed below.) The student must complete the Teaching/Extension "Requirement form, found on the PSM web site. A teaching or extension activity is part of the student's academic program and helps prepares her/him for making presentations to varying audiences in the future. Because this is a professional development requirement, and because of the manifold ways in which students may fulfill the requirement, students are not appointed as TAs as referenced in the MSU-GEU contract (<http://www.geuatmsu.org/>).

- a. To demonstrate English proficiency, students whose first language is not English are required to pass an on-campus SPEAK or INTERVIEW test prior to serving as a teaching assistant.
- b. All domestic, and students whose first language is not English, are required by the University to

complete the Teaching Assistant Orientation. The orientation is offered prior to the start of the fall semester. Students should attend the orientation in the academic year they plan to serve as a TA.

c. After completing the on-line Teaching/Extension form, students must obtain signature approval of the major professor and the Director of Graduate Programs **before** serving as a Teaching Assistant and/or Extension Assistant.

Teaching Activities

A minimum of three of these activities should be completed to qualify as a meaningful teaching experience:

- Attend as many classes as possible, at the discretion of the professor.
- Develop and present at least one lecture/ demonstration-discussion before the entire class.
- Coordinate field and/or laboratory activities and possibly develop new exercises to be used a field or lab activities.
- Contribute to the grading and recording of student's homework and exams.
- Contribute questions for exams and homework.
- Hold office hours and/or help sessions.
- Time commitment: (assume 3 hours prep for each contact hour;
Example: a student responsible for a 2 hour lab =
2 contact hour
6 prep hours
3 hour lecture
11 hours + misc. time
(Misc. time to include grading, exam question prep, assisting student, etc.)

Extension Activities

A person to person requirement should be part of the experience. For example, the student should either present a session utilizing the teaching aid or publication developed or should interact with clientele in some other way. A list of suggested activities follows.

- Write and publish an extension bulletin.
- Develop and teach an Extension Short Course for a specific audience
- Develop and coordinate a field day or a field tour for a specific audience.
- Develop an exhibit to be used at Extension activities (person to person interaction).
- Develop a PowerPoint presentation for use by Extension educators, agri-science teachers, or other agency personnel (person to person interaction).
- Develop a video on a specific topic for a specific audience (person to person interaction.)
- Develop and initiate a field demonstration plot for use by Extension educators and others.

Completing the Teaching/Extension Experience

1. Prior to the semester in which the teaching and extension experience will be completed, all students (domestic and international) must fill out the top part of the on-line **Graduate Teaching/Extension Requirement** form, which constitutes a description of the proposed teaching and extension experience. The proposed teaching/extension experience must be

approved in advance by the appropriate instructor/specialist, the student's major professor, and the Director of Graduate Programs. The Graduate Teaching/Extension Presentation Requirement form must be completed **prior** to the experience.

2. In circumstances where the guidance committee judges that a student has had adequate teaching/extension experience, the major professor may petition for a waiver of this requirement. *The petition must be submitted in writing to the Graduate Programs Director at least two semesters before the candidate plans to graduate.*

G. Responsible Conduct of Research (RCR)

The conduct of research and creative activities by faculty, staff, and students is central to the mission of Michigan State University and is an institutional priority. Integrity in research and creative activities is based not only on sound disciplinary practice but also on a commitment to basic personal values such as fairness, equity, honesty, and respect. The foundation underlying all research is uncompromising honesty in presenting one's own ideas in research proposals, in performing one's research, and in reporting one's data. Misconduct in research, such as falsification and plagiarism, is grounds for termination.

The Research Integrity Office is an additional source of information: <http://www.rio.msu.edu>

The Graduate School research integrity webpage is: <http://grad.msu.edu/researchintegrity/>.

The Department of Plant, Soil, and Microbial Sciences requires all students to meet the minimum MSU requirements for Responsible Conduct of Research as follows:

2) Year 1

All graduate professional students will complete 3 CITI online modules within the first year of enrollment in their program. (<https://grad.msu.edu/rcr>)

- Authorship
- Plagiarism
- Research Misconduct

2) Discussion-Based Training

All graduate professional students must complete a minimum of 6 hours of discussion-based training prior to receiving their degrees. These hours must be completed prior to taking comprehensive examinations. CSS 880 counts for 6 hours of discussion-based training.

3) Year 2

3 additional MSU online training modules must be completed within the first 2 years of enrollment. (<https://grad.msu.edu/rcr>) You may choose three from the following list:

- CITI Collaborative Research
- CITI Conflicts of Interest
- CITI Data Management
- CITI Financial Responsibility
- CITI Mentoring
- CITI Peer Review
- IACUC Tutorial for Animal Care Training
- Human Research Protection/ IRB Certification
- Rigor and Reproducibility Course

4) Annual Refresher Training

Starting in year 3, three hours of annual refresher training must be completed; this can include discussion-based training and online courses beyond the seven hours required in basic trainings above.

H. Professional Development, Scientific Writing and Presentation Skills

The Crop & Soil Sciences graduate program requires that both MS and PhD students exhibit proficiency in professional development, scientific writing, and presentation skills. The faculty recognizes that these skills can be acquired through formal coursework and experience. The Professional Development, Scientific Writing and Presentation Skills Requirement provides the guidance committee flexibility in identifying the course(s) that a given student should complete to satisfy the requirement. The course(s) identified by the guidance committee must appear on their academic Program of Study. A minimum of 1 credit is required. Current Course Options are:

CSS 880 Scientific Communication and Professional Development - 1 credit - Spring

Interactive discussion and exercises designed to prepare students to become successful professionals. Content will focus on the skills and strategies for success in STEM careers at the graduate level and beyond. Course content will address three main topics: 1. Career management & leadership skills 2. Scientific communication 3. Applying & interviewing for your next position

HRT 860 Scientific Writing Workshop - 1 credit - Spring

Development of scientific writing skills

GLG 850 From Research to Publication – 3 credits – Fall, Spring

An overview of the process for moving research from data/theory to publication including ethics in publishing, identifying appropriate journals, writing manuscripts, and the publication process.

ENT 890 Independent Study: Scientific Communication - 2 credits - Fall

Produce a journal-quality scientific article, thesis/dissertation chapter or grant proposal by writing a document section-by-section, using the peer-review process, and incorporating feedback. Become familiar with other aspects of scientific publication and communication to improve presentation and online communication skills.

EGR 891 Technical Writing for Engineers and Scientists - 3 credits - Fall, Spring

Designed for graduate students to equip them to write technical documents in MS Word and LaTeX.

PLB 843 Forum in Computational and Plant Sciences – 1 credit – Fall, Spring

Professional development focused on diverse modes of communication in support of interdisciplinary science with an emphasis on plant and computational sciences.

PLP 894 Seminar in Plant Pathology - 1 credit - Fall, Spring

Review, organization, analysis and oral presentation of research

I. Seminar Requirement

Each doctoral student is required to present at least **two** seminars as part of the requirements for graduation. Each student is required to present an oral seminar on his/her dissertation research as part of the final oral examination. **Seminar notices should be completed by the student and sent electronically to the CSS Graduate Programs Office at least 1 week prior to the seminar.** Each student is also required to present at least one additional seminar. The first seminar may be either an oral or poster format and may be presented at a professional meeting. **Students must complete and submit an on-line Seminar Requirement form for the first seminar.**

J. Annual Evaluation and Student Records

Each year prior to Fall semester students are provided an academic update to keep them informed of their academic progress. It is then the responsibility of the student to complete an evaluation form in late fall or early spring semester and review the form with his/her major advisor. **An on-line evaluation form is available to students one month prior to Spring semester.** Students are evaluated on both the completion of program requirements and the progress made on assistantship and research responsibilities. The student must meet with their major advisor, discuss their progress, complete the form, sign the form, and then return the form to the CSS Graduate Office by February 1. If the major professor is not available to review the student's evaluation, the major advisor must appoint a substitute in advance.

All evaluation forms will be reviewed by the Director of Graduate Programs or by the GPC Chairperson if the Director is unavailable. Students will be notified in writing if they are not making normal academic progress. If the major professor deems that normal progress is not being made, the major professor, in consultation with the student, will develop a written plan of action, which must then be approved by the CSS Graduate Programs Director.

Evaluation forms, programs of study forms, application and admission materials, degree requirement completion forms, lists of honors and recognition, and other relevant student records, will be filed in the student's permanent file in the CSS Graduate Programs Office. A student may access her/his individual records by submitting a written request to the Graduate Programs secretary. Students have the right to challenge the accuracy of their files by writing a letter that is placed in the file.

K. Proposal Requirement

Each doctoral student is required to complete a written dissertation proposal. The purpose of the proposal requirement is to provide students with experience in writing research proposals and to ensure communication on the research project between the student and guidance committee. The proposal must be approved by the guidance committee within two years of admission into the doctoral program. The on-line Research Proposal Requirement form can be obtained from PSM web site. Dissertation research must be original research which will contribute to the body of knowledge of the student's disciplinary topic.

L. Comprehensive Examinations

1. Introduction:

Comprehensive examinations are designed to test the student's competence as a professional crop and/or soil scientist. In the comprehensive examination, the student is expected to demonstrate more than an ability to recall principles, theories, facts, and hypotheses that have been learned in formal course work. He/she is expected to demonstrate an ability to integrate knowledge and information in solving problems. In evaluating a student's performance, emphasis is placed on the student's ability to recognize problems and to propose and defend solutions.

2. Examination Format:

The comprehensive exam includes the written and the oral exam. Students must pass both components to pass the comprehensive exam. The written component must be passed before the oral exam is taken. Students have two attempts to pass each component of the comprehensive exam.

3. Guidelines for the Comprehensive Exam:

- a. The comprehensive exam is a pass/fail examination required of all Ph.D. students. The comprehensive exams should be taken after 80% of required course work is completed. Students must be registered the semester in which they take the comprehensive exam, and they must pass the comprehensive exam within five years of enrollment as a doctoral student.
- b. The written component of the comprehensive exam must be passed before the oral component is taken. A student has two attempts to pass each component of the exam. A student who fails either the written or oral component of the comprehensive exam twice will be terminated from the Ph.D. program. He/she may request reclassification as a master's candidate.
- c. To "pass" the written component the student may receive a "fail" grade from not more than one committee member.
- d. To "pass" the oral component the student may receive a "fail" grade from not more than one committee member.
- e. If a student fails, the student must wait until the following semester before retaking either the written or oral component of the comprehensive exam.

4. Administration of the Comprehensive Exam:

- a. The guidance committee chairperson is responsible for maintaining the record of the comprehensive exam. He/she should obtain the University Record of Comprehensive Examination form from the PSM web site prior to exam initiation. This form lists the participating guidance committee members and their subject matter.
- b. The written component is comprised of individual tests administered by the student's committee. Students should be informed of the subject areas well in advance of the written exam. Subjects

are chosen by the committee and are based on the student's area of emphasis. One of the tests must be in either crop science or soil science. Each written test should be designed to be completed in 4 to 6 hours. The decision as to whether reference materials or electronic devices are used is a committee or committee member's decision. All written tests should be administered within a 2-week period.

- c. Each committee member must date, sign, and mark pass or fail for the written component of the comprehensive exam on the University Record of Comprehensive Exam form as soon as possible after the completion of the written exam. The chairperson of the guidance committee will then communicate to the student and to the committee whether the student has passed the written exam and can schedule the oral examination.
- d. A student passes the written component of the comprehensive exam if all committee members or all but one committee member give a passing grade.
- e. A copy of each written exam must be given to the Graduate Programs Office for long term storage with the student's records and kept on file for three years (University policy).
- f. The oral component of the comprehensive exam should be scheduled as soon as possible after successful completion of the written component of the comprehensive exam.
- g. All members of the committee must participate in the oral exam or have a representative of their subject area serve for them. Students should be informed of the subject areas well in advance. Oral exams should not exceed four hours.
- h. The chairperson of the guidance committee should bring the University Record of Comprehensive Examinations to the oral examination. Following completion of the oral exam the student should be excused from the room while the committee discusses the exam. Each committee member then signs and dates the form and indicates a grade of pass or fail. A pass may be conditional by requiring further work such as additional course work, a written paper, or a similar assignment at the discretion of the examining committee.
- i. A student passes the oral component of the comprehensive exam if all committee members or all but one committee member give a passing grade.
- j. The student is informed of the results of the oral component of the comprehensive exam immediately and the form is then returned to the CSS Graduate Programs Office for approval by the Department Chairperson or his/her designee, usually the Director of Graduate Programs, and the Dean of the College.
- k. For students who were enrolled in the Spring and are taking their comprehensive exams during the immediate Summer semester, the department can request a waiver of the requirement that the student be enrolled for at least one credit the semester of the comprehensive exam. These requests are to be directed to the Graduate School and must be endorsed by the student's department and college. **All students defending their thesis or dissertations in the Summer need to be registered for at least one credit during that Summer, regardless of their being enrolled the preceding Spring semester.**

M. Doctoral Degree Evaluation

1. Oral Examination:

Upon completion of the dissertation, a final oral examination in defense of the dissertation is held. The final examination consists of two parts: 1) Oral seminar presented by the student on his/her research. The seminar is open to anyone interested in attending. A notice of the seminar and examination should be posted at least one week in advance. 2) Final oral examination conducted by the guidance committee, chaired by the major professor. All members of the guidance committee and all Plant, Soil, and Microbial Sciences faculty will be invited to attend and participate in the final oral examination. Each guidance committee member should have a copy of the dissertation two weeks prior to the examination.

2. Evaluation:

On the basis of the dissertation and the student's defense, the guidance committee either approves or rejects the dissertation. Approval may be conditional, requiring additional work. While a unanimous report is usual, a three-fourth majority vote of attending members of the guidance committee is sufficient to approve the dissertation and pass the student. Following the defense, each member of the guidance committee will sign the Dissertation and Oral Examination form which must be forwarded to the Director of Graduate Programs, the Department Chairperson, and then to the Dean of the College.

3. Distribution of dissertation:

Each student is expected to submit an electronic copy of the dissertation to the Office of the Graduate School. The major professor has the option of requesting a bound copy.

N. Application to Graduate

During the semester in which you plan to graduate you will need to obtain an Application to Graduate form. It can be found at the following web site: <http://www.reg.msu.edu/StuForms/GradApp/GradApp.asp>. Information on Commencement and Ceremonial events can be found at: <https://commencement.msu.edu/>. Thesis and Dissertation information can be found online at: <https://grad.msu.edu/etd>. In addition should register with Career Services Network, by completing a credential file with Interfolio at the following web site: <http://careernetwork.msu.edu/alumni/interfolio-credential-files>

O. Doctoral Degree Requirements and Due Dates

<u>Requirements</u>	<u>Due Date</u>
Selection of Guidance Committee	Prior to completion of first semester
Report of Guidance Committee - Doctoral and Other Programs (Grad Plan form)	Prior to completion of second semester
SPEAK/INTERVIEW test - International Students <i>Must pass before the end of the first semester in CSS.</i>	Prior to teaching/extension experience. (Check schedule with English Testing Office or Graduate Program Staff).
TA Seminar on College Teaching	Attend during prior to serving as TA.
Responsible Conduct of Research Training	In Year 1 and Year 2
Teaching/Extension Requirement Must have prior approval (Form Required)	The semester before the teaching/extension experience (<i>two semesters prior to graduation</i>).
Professional Development, Scientific Writing and Presentation Skills	Course(s) must be listed on Grad Plan
Seminar Requirement (Form Required)	After completion of third semester
Proposal Requirement (Form Required) <i>Must be approved by Guidance Committee</i>	Within <u>two</u> years of admission to the doctoral program
Comprehensive Examination (Form Required)	Can be taken when 80% or more of course program is completed
Application to Graduate (Form Required)	See the University Calendar*
Final Dissertation Defense (Form Required) Abstract attached	See the University Calendar*
Final Draft of Dissertation to Graduate School	See the University Calendar*

<https://reg.msu.edu/ROInfo/Calendar/Academic.aspx>

VII. MENTORING OF GRADUATE STUDENTS

The graduate programs in the Department of Plant, Soil and Microbial Sciences are monitored by the Graduate Programs Committee. The Committee consists of five Department Faculty (one of whom serves as the Chair) and an ex-officio Graduate Programs Director. In addition to admission decisions, this committee implements policies established by the PSM Faculty, including oversight of academic progress of students and the appropriate mentoring of students by faculty. Toward that end, students and faculty have shared roles as outlined below.

A. Responsibilities of the Major Professor include:

- Advising the student on planning the program of study, including selection of academic courses
- Ensuring that the student receives and understands information about requirements and policies of the graduate program
- Advising the student on selection of a thesis or dissertation topic with realistic prospects for completion within an appropriate time frame
- Conducting written annual evaluations on the student's progress
- Completing and approving the final certification for the degree.

B. Responsibilities of the Student's Guidance Committee include:

- Reviewing and approving a student's Program of Study, and seeing that the student completes all requirements for the degree
- Meeting with the student and reviewing his/her proposed thesis/dissertation research or Plan B research problem
- Approving the student's thesis or dissertation
- Administering the required comprehensive exam and final exam.

C. Responsibilities of the Graduate Student include:

- Learning and adhering to University and academic unit procedures and policies, including those related to use of equipment, space, telephones, office equipment and other policies stated in the STAFF & BUILDING RESOURCES document provided to all new graduate students at the department orientation; meeting university and departmental requirements for degree completion; forming a guidance committee, in consultation with the student's major professor, that meets university, college and department requirements and policies
- Following disciplinary and scholarly codes of ethics in coursework, thesis or dissertation research
- Practicing uncompromising honesty and integrity according to University and federal guidelines in collecting and maintaining data
- Seeking regulatory approval for research where appropriate
- Keeping the major professor and guidance committee apprised on a regular basis of the progress toward completion of the thesis or dissertation.

VIII. STUDENT CONDUCT AND CONFLICT RESOLUTION

The document entitled "Graduate Student Rights and Responsibilities, Michigan State University" is available on line 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. Graduate students are encouraged to settle disputes informally. If informal procedures do not settle a grievance, a party or 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.

At times, there may be conflict between the student and her/his major professor that needs to be resolved. If a solution to the problem cannot be attained, the student should feel free to discuss the issue with the CSS Graduate Programs Director, the Department Chairperson or the Ombudsperson (<https://ombud.msu.edu/>) in order to find alternative solutions.

IX. RESPONSIBLE CONDUCT OF RESEARCH (RCR)

A. Integrity and Misconduct

The conduct of research and creative activities by faculty, staff, and students is central to the mission of Michigan State University and is an institutional priority. Integrity in research and creative activities is based not only on sound disciplinary practice but also on a commitment to basic personal values such as fairness, equity, honesty, and respect. The foundation underlying all research is uncompromising honesty in presenting one's own ideas in research proposals, in performing one's research, and in reporting one's data. Misconduct in research, such as falsification and plagiarism, is grounds for termination.

The Research Integrity Office is an additional source of information: <http://www.rio.msu.edu>

The Graduate School research integrity webpage is: <http://grad.msu.edu/researchintegrity/>. The Department of Plant, Soil, and Microbial Sciences requires all students to meet the minimum MSU requirements for Responsible Conduct of Research. Please see your graduate program section for further details on your personal requirements.

B. Safety Issues

Graduate students in CSS perform research in a variety of settings, including laboratories, greenhouses and field research facilities. Because students may be exposed to hazardous materials while conducting research or participating in course work, it is imperative that students participate in the mandatory safety training session offered the PSM Department each semester. Additional information on safety is available at the website of the Office of Radiation, Chemical and Biological Safety at <http://www.orcbs.msu.edu/>. Appropriate authorization forms may be required. If students have questions, they should consult the PSM Safety Officer, Dr. Kim Cassida.

C. Research Involving Humans or Animals

Federal and University regulations require that all research projects involving human subjects and materials of human origin be reviewed and approved by an Institutional Review Board (IRB) before initiation. A human subject of research is an individual from whom an investigator obtains data by interaction or intervention or about whom the researcher obtains confidential information.

For more information, please see the University Committee on Research Involving Human Subjects (*UCRIHS*) web site at: <http://hrpp.msu.edu> If your research involves animals, please consult the Animal Use and Care web site at: <https://animalcare.msu.edu/iacuc/>

X. GRADUATE ASSISTANTSHIPS

Graduate assistantships are awarded to students based on availability and are usually from research funds generated by the major professor. Assistantships levels, timelines of employment and stipends conform to University guidelines. The amount and timing of vacation are at the discretion of the major professor. Assistantships may be terminated if the student is not making acceptable academic progress toward the degree and/or if the cumulative GPA falls below a 3.0, or in cases of insufficient funds.

Receipt of externally funded fellowships by students who have written their own grant applications and worth at least \$24,000 (direct costs) usually makes the students eligible for in-state tuition rate. The in-state tuition rate applies only to the semesters during which the student is supported by the fellowship. This policy applies only to grants funded through a competitive process by a US institution/agency/foundation. Funds obtained through non-competitive processes (e.g., need-based fellowships) or from international sources do not qualify students for in-state tuition rates. For more information contact Melissa Del Rio (mdelrio@msu.edu) in 110 Linton Hall.

XI. 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).

XII. UNIVERSITY RESOURCES

A. Graduate Student Rights and Responsibilities

This document is published in Spartan Life, and can also be accessed via Michigan State University's Web page at <http://splife.studentlife.msu.edu/>. It contains University policies concerning graduate education.

B. 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>.

C. 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.

D. 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.

E. 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 Office of the University Ombudsperson provides assistance to students, faculty, and staff in resolving University-related concerns. Such concerns include: student-faculty conflicts; communication problems; concerns about the university climate; and questions about what options are available for handling a problem according to Michigan State University policy. The University Ombudsperson also provides information about available resources and student/faculty rights and responsibilities. The office operates as a confidential, independent, and neutral resource. It does not provide notice to the University - that is, it does not speak or hear for the University.

Contact the Ombudsperson at any point during an issue when a confidential conversation or source of information may be needed. The Ombudsperson will listen to your concerns, give you information about university policies, help you evaluate the situation, and assist you in making plans to resolve the conflict.

Contact information:

Office of the University Ombudsperson

129 N. Kedzie Hall

(517) 353-8830

ombud@msu.edu

<https://www.msu.edu/unit/ombud/>

F. 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.

G. Graduate Education Union

Information about, and the handbook for, the GEU can be found at the following web site:

<http://www.geuatmsu.org/>.

H. 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.

Appendix A

CSS Graduate Student Handbook

Graduate Student Academic Grievance Hearing Procedures for the Department of Plant, Soil, and Microbial Sciences

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 visa 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. Either 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.)

Approved by PSM Faculty May 5, 2017 (Annual Meeting – planned)