Molecular Plant Sciences Graduate Handbook

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This Handbook is available at the MPS website (<http://mps.natsci.msu.edu/>).

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**Table of Contents**

**I.** [**PrOGRAM OVERVIEW**](#_I._PROGRAM_OVERVIEW)**……………………………………………………………... 3**

[A.MPS is a dual-major program](#_A._MPS_IS)………………………………………….. 3

[b.Participating departments](#_B._PARTICIPATING_DEPARTMENTS)…………………………………………….. 3

[C. GOALS OF THE MPS PROGRAM](#_C._GOALS_OF)………………………………………………. 3

[D.RESOURCES](#_D._RESOURCES)……………………………………………………………………... 4

[e.administrative organization](#_E._ADMINISTRATIVE_ORGANIZATION)…………………………………………. 4

**II.** [**PROGRAM COMPONENTS**](#_II._PROGRAM_COMPONENTS)**………………………………………………………….** 5

**III.** [**DEGREE REQUIREMENTS**](#_III._DEGREE_REQUIREMENTS)**…………………………………………………………. 5**

[A. ADMISSIONS](#_A._ADMISSIONS)…………………………………………………………………….. 5

[B. ROTATIONS](#_B._ROTATIONS)……………………………………………………………………… 5

[C. CREDIT REQUIREMENTS](#_C._CREDIT_REQUIREMENTS)……………………………………………………… 6

[D. RESIDENCY REQUIREMENT](#_D._RESIDENCY_REQUIREMENT)………………………………………………….. 6

[E. COURSEWORK, SEMINARS, AND PUBLIC PRESENTATIONS](#_E._COURSEWORK,_SEMINARS,)…………….. 6

[F. COMPREHENSIVE EXAM (QUALIFYING EXAM)](#_F._COMPREHENSIVE_EXAM)…………………………… 6

[G. DISSERTATION](#_G._DISSERTATION)………………………………………………………………….. 8

[H. FINAL EXAMINATION (DISSERTATION DEFENSE)](#_H._FINAL_EXAMINATION)……………………….. 8

[I. FINALIZING THE DISSERTATION](#_I._FINALIZING_THE)……………………………………………... 8

[J. FINAL CERTIFICATION](#_J._FINAL_CERTIFICATION)…………………………………………………………. 9

[K. TYPICAL TIMELINE FOR THE PH.D. DEGREE](#_K._TYPICAL_TIMELINE)……………………………… 9

**IV.** [**SELECTION OF DISSERTATION ADVISOR**](#_IV._SELECTION_OF)**……………………………………. 10**

V. [SELECTION AND DUTIES OF THE GUIDANCE COMMITTEE](#_V._SELECTION_and)……………... 11

VI. [ACADEMIC PERFORMANCE, INTEGRITY AND SAFETY IN RESEARCH AND CREATIVE ACTIVITIES](#_VI._ACADEMIC_PERFORMANCE,)…………………………………………………….. 12

[a. aCADEMIC PERFORMANCE](#_A._ACADEMIC_PERFORMANCE)………………………………………………… 12

[B. SAFETY](#_B._SAFETY)…………………………………………………………………………. 12

[C. INTEGRITY](#_C._INTEGRITY)……………………………………………………………………... 12

**VII.** [**GRADUATE STUDENT GRIEVANCE PROCEDURES**](#_VII._GRADUATE_STUDENT)**…………………………. 13**

VIII. [WORK-RELATED POLICIES](#_VIII._WORK_RELATED)……………………………………………………… 13

[A. GRADUATE ASSISTANT ILLNESS/INJURY/PREGNANCY LEAVE POLICY](#_A._GRADUATE_ASSISTANT)**……………………………………………………………………………. 13**

 [B. SPECIAL INFORMATION FOR INTERNATIONAL STUDENTS](#_B._SPECIAL_INFORMATION)…………... 13

**IX.** [**OTHER MPS POLICIES**](#_IX._OTHER_MPS)**…………………………………………………………….. 14**

[A. TRAVEL](#_A.__TRAVEL)………………………………………………………………………... 14

X. [EDUCATION/TRAINING PLAN FOR RESPONSIBLE CONDUCT OF RESEARCH](#_X._EDUCATION/TRAINING_PLAN)…………………………………………………………………………... 14

XI. [Training in Relationship Violence and Sexual Misconduct Policy](#_XI._TRAINING_IN)……………………………………………………………………………….. 14

XII. [NECESSARY FORMS](#_XII._NECESSARY_FORMS)……………………………………………………………….. 14

***This document serves as a supplement to the Graduate Handbook for each student’s primary degree-granting department or interdepartmental******program*.** It is designed to help graduate students in the Michigan State University (MSU) Molecular Plant Sciences (MPS) program understand the requirements and guidelines for degree completion and provide students with general information on life at MSU. Entering students should read this handbook at the program website and become familiar with the contents.

Please download and ***keep this copy*** because the guidelines that were in effect at the time of your entry into the program are the ones that will apply for your entire tenure as a student, *i.e.*, changes made to the guidelines after your entry into the MPS program are generally not retroactive. Also, please note that all requirements of the Graduate School, the College of Natural Sciences or College of Agriculture & Natural Resources also apply to you, even if some of them are not specified in this manual.

# I. PROGRAM OVERVIEW

## A. MPS IS A DUAL-MAJOR PROGRAM

The MPS Graduate program at Michigan State University is a dual-major program. All students must be affiliated with a degree-granting program, department-based or interdepartmental. Each program has specific requirements, expectations, and other guidelines for its students. In some cases, the MPS requirements are similar or identical to those for a degree-granting program. In other cases, the requirements for MPS may extend those that pertain to the student’s primary degree program. All MPS students must therefore be cognizant of the requirements, expectations, and guidelines pertaining to ***both*** the MPS program and their primary degree program. In addition to consulting the relevant graduate handbooks, every MPS student should work closely with their research advisor, guidance committee, administrative staff, and as appropriate, the Graduate Program Directors to ensure that they are satisfying all of the relevant requirements.

## B. PARTICIPATING DEPARTMENTS

 Upon completing the degree requirements, students are awarded a degree in “the primary degree-granting program and Molecular Plant Sciences,” for example, “Genetics and Genome Sciences and Molecular Plant Sciences” or “Biochemistry and Molecular Biology and Molecular Plant Sciences.” Currently, possible dual majors are with the departmental programs of Biochemistry and Molecular Biology (BMB), Horticulture (HRT), Microbiology, Genetics and Immunology (MGI), Plant Biology (PLB), and Plant and Soil Microbial Sciences (PSM), and within PSM, MSU offers Ph.D. degrees in Crop and Soil Sciences (CSS) and Plant Pathology (PLP). Dual-majors are also possible with the degree-granting interdepartmental programs in Genetics and Genome Sciences (GGS) and Cell & Molecular Biology (CMB). ***Affiliated programs are subject to change***. The MPS program offers only the Ph.D. degree along with the primary degree-granting progam.

## C. GOALS OF THE MPS PROGRAM

 MPS students are trained to: (1) do independent and original research, (2) have depth of knowledge in all aspects of modern plant molecular sciences, (3) effectively communicate, orally and in writing, in the language of science, (4) be able to work in a cooperative, professional manner with culturally diverse individuals as members of research groups and teams, and (5) hold themselves and others to the highest standards of personal and professional ethics.

 In keeping with these goals, students are expected to complete the coursework requirements of MPS and of their primary degree-granting programs - along with requirements determined by the student’s guidance committee - and to pass all required examinations. Students are also expected to attend the weekly [MPS seminar series](https://mps.natsci.msu.edu/news-events/mps-seminars/), the seminars of their primary-degree departments, as well as dissertation proposal and defense presentations by fellow students. They are expected to attend professional meetings to present their research results, to learn as much as they can about their field of study and its history, and to make professional contacts as a part of the networking process essential to future success.

## D. RESOURCES

 Some MSU web pages that MPS students should consult:

* [MPS Homepage](http://www.mps.natsci.msu.edu)
* [Academic Programs](https://reg.msu.edu/AcademicPrograms/Default.aspx)
* [Student Rights and Responsibilities](http://splife.studentlife.msu.edu/student-rights-and-responsibilities-at-michigan-state-university)
* [MSU/Graduate Employee Union (GEU) Contract](https://geuatmsu.org/about/geu-contract/)
* [Guidelines for Graduate Student Advising and Mentoring Relationships](https://grad.msu.edu/msu-guidelines-graduate-student-mentoring-advising)
* [Guidelines for Integrity in Research and Creative Activities](https://grad.msu.edu/researchintegrity)

## E. ADMINISTRATIVE ORGANIZATION

 The MPS program is administered by the College of Natural Sciences, with strong participation by the College of Agriculture and Natural Resources. The MPS program is governed by its [Bylaws](https://mps.natsci.msu.edu/_assets/files/about/MPS%20by-laws%20official%20final%201-15-18.pdf) and administered by the program Director and Executive Committee.

 The **Director of the MPS Program** is responsible for the overall operational guidance of the program, including long-range planning with respect to graduate student training and budgetary matters. The faculty members of the MPS program select the Director for a five-year term. The Director may also serve as a liaison between the program and MSU colleges and departments, and in this role is assisted by participating faculty especially members of the MPS Executive Committee. The Director also oversees supportive services and program functions including but not limited to: graduate student recruitment and admission, graduate student requirements, progress of graduate students through their programs, support of graduate student research, MPS core courses, seminars, retreats, and any personnel issues within the realm of the MPS program.

 **Faculty in the MPS Program** may include any MSU tenure-stream faculty with an active interest in any area of molecular plant sciences. MPS faculty may supervise students in the program and serve as major professor (*i.e.*, research advisor) on the student’s guidance committee. ***A faculty member serving as research advisor should ensure that a student’s progress fulfills the requirements, expectations, and guidelines of the MPS program as well as those of the primary degree program.*** The MPS faculty also participate in teaching the core MPS courses along with graduate seminars and other relevant courses, serve on MPS committees, attend MPS program faculty meetings, and participate in other MPS activities such as seminars.

 The **MPS Executive Committee** (MPSEC) consists of the Director, five additional faculty members, and one student representative. It is organized to represent the college, department, and sub-discipline diversity of the program, and advises the Director on major policy matters relating to the MPS program. In addition to any meetings scheduled by the Director, any MPSEC member may initiate a meeting at the request of any MPS Program faculty member or graduate student for the purpose of discussing a specific matter or concern that should be brought to the attention of the committee. If a suggested solution from the MPSEC or Director does not satisfy the concern, the individual raising the concern may request that the matter be brought before the MPS program faculty at a meeting of all MPS faculty. The graduate student representative on the MPSEC is chosen democratically by the MPS graduate students. MPSEC also serves the function of the MPS **Graduate Committee,** assisting the Director in coordinating with the graduate admissions committees of the relevant degree-granting programs to identify students for admission to and funding by the MPS program.

 The **MPS Seminar** **Committee** includes three to four MPS faculty members representing the diverse programs and disciplines, and one or two MPS graduate students chosen democratically by the MPS graduate students.

# II. PROGRAM COMPONENTS

 The program of study consists of core and elective courses, seminar courses, qualifying exam, and a dissertation including an oral dissertation defense. The primary degree-granting program determines the teaching requirements.The student’s Guidance Committee administers the qualifying exam, recommends coursework beyond the MPS core courses, and supervises the execution and completion of the dissertation. Coursework is recorded in [GradPlan](https://grad.msu.edu/gradplan).

To obtain the MPS dual-major Ph.D., other requirements set forth by each student’s primary degree program must also be met. The extent to which the MPS Program’s course requirements may fulfill some of the course requirements in the student’s primary degree program varies among programs. If a student decides to leave the dual-major MPS program, they can revert to the requirements of the primary degree program. [Course requirements](https://mps.natsci.msu.edu/current-students/coursework-requirements.aspx) of the MPS program and the participating degree-granting programs can be found on the MPS website.

# III. DEGREE REQUIREMENTS

## A. ADMISSIONS

 The [admissions requirements and process](https://mps.natsci.msu.edu/admissions/how-to-apply/) are described on the MPS website. Students must choose a degree-granting program, indicate on their application an interest in joining the MPS dual-major program, and ***submit the one-page supplemental application to the MPS program***. The MPS program does not have an official application deadline, but all participating degree-granting programs do. Students can be admitted to the MPS program at any time up until they take their qualifying exam (typically completed by the beginning of the third year). MPS coursework requirements for students who enter the program after their first semester at MSU will be decided by the MPS Director in consultation with the MPS Executive Committee.

## B. ROTATIONS

 Most students will be supported for their first year by assistantships from the MPS program, the Plant Science recruiting program, the BMS umbrella program, or by college or university fellowships. ***Students in their first year will participate in three consecutive 8-week lab rotations starting immediately after their arrival at MSU; any exceptions require approval by the MPSEC.*** Thus, students who start rotations in the Fall can typically be finished with rotations by mid-Spring Semester, after which they will join a lab permanently for their dissertation research. If necessary, some students may choose to conduct additional rotations, when financial support is available for the extra rotation period.

 Funding permitting, students may have the option to start graduate school in the summer before the normal Fall start date. The first rotation can then start in the summer.

Guidelines for setting up rotations:

1. The primary purpose of rotations is to identify an advisor. At any time in the process, students are encouraged to seek advice from the MPS Director, a member of the MPS Executive Committee, and/or someone in their degree-granting program.
2. The process of choosing the first lab rotation should start at least several weeks before arriving on campus so that students can begin their first rotation as soon as they arrive. Second and third rotations should be set up in a similarly timely fashion.
3. To initiate rotations, students should first ask potential faculty mentors if they are accepting students, and if so, when they have openings for rotations during the coming year. Rotations should be done only in laboratories that have reasonable expectations of having space and resources to support the student throughout their graduate career.

## C. CREDIT REQUIREMENTS

 The minimum credit requirements for the University are 24 credits of doctoral dissertation research (e.g., PLB999, BMB99, GEN999, or equivalent) in addition to credit for all the courses specified by the student’s Guidance Committee. The maximum total number of doctoral dissertation research credits a student can enroll in during their degree program is 36 credits. In practice, this means that if students are on track to get 24 research credits before graduation, they should enroll in the minimum number of 999 credits that they need to meet their minimum enrollment requirements each semester.

## D. RESIDENCY REQUIREMENT

 As required by the MSU Graduate School, each student must meet a residency requirement, which is two consecutive semesters, involving the completion of at least six credits of graduate work each semester.

## E. COURSEWORK, SEMINARS, AND PUBLIC PRESENTATIONS

For [coursework requirements of the MPS program and primary degree-granting](https://mps.natsci.msu.edu/current-students/coursework-requirements.aspx) programs, see the relevant pages on the MPS website. All MPS students are required to attend the weekly [MPS seminars](https://mps.natsci.msu.edu/news-events/mps-seminars/index.aspx) and present two public seminars during their graduate study at MSU. The first seminar, in most cases, is the Dissertation Proposal seminar as part of the Comprehensive Exam. The second is a seminar on the student’s completed dissertation research, held immediately prior to the Dissertation Exam. The dissertation seminar is considered part of the Final Examination (Dissertation Defense). ***It is the responsibility of the student and the research advisor to inform the MPS Graduate Secretary of the time of the Dissertation Proposal seminar and Dissertation Exam.***At least one week prior, the MPS Graduate Secretary announces the seminar to the MPS community.

 Because students’ backgrounds and programs are different (*e.g.*, some students come to MSU with a Master’s degree), applications for waivers and substitutions of required courses will be considered. ***All waivers and substitutions must be approved by the MPSEC***. For waivers due to overlap with courses taken at other institutions, a sufficiently detailed syllabus must be provided.

## F. COMPREHENSIVE EXAM (QUALIFYING EXAM)

To remain in good standing, students must complete their comprehensive exam (also known as the qualifying exam), typically before the end of the first semester of their third year in the program. Students must be enrolled at the time they take their Comprehensive Exam.The purpose of the exam is to determine whether the student has mastered knowledge of molecular plant sciences and other fields pertinent to the thesis research, understands the scientific method, can think independently and creatively, and is prepared to do independent doctoral research. Many departmental student handbooks have excellent detailed advice on how to prepare for the exam.

***The above skills can be assessed in different ways. In most of the MPS partner programs, students are required to write a research proposal and present it in a public seminar, which is consistent with the preferred format of MPS, whereas in some other programs only a written exam is required. MPS is collaborating with the various participating departments and programs to have a single comprehensive examination format for all MPS students. However, current students may have the option to use their primary degree-granting program’s exam format if it is different from that of MPS. Be sure to discuss with your research advisor as to which format to follow*.**

 The ***MPS preferred format*** for the Comprehensive Examination consists of the preparation of a written research proposal, its presentation in a public seminar, and its defense before an examining committee.

Students are expected to establish the date of the comprehensive examination and submit the written research proposal to each member of the Guidance Committee prior to the examination date, following the guidelines of the individual degree-granting programs. They must also notify the MPS Graduate Secretary of the scheduled examination date and the venue at least two weeks prior to the examination.

 As a general guidance, the dissertation proposal should be no longer than 15 pages (12 pt, single-spaced, 1-inch margins, excluding the literature cited). The proposal must include Aims and Introduction (< 5 pages which includes background, a discussion of significance/importance of the proposed research, and clearly stated hypotheses), followed by Experimental Plan and Preliminary Results (< 10 pages). Experimental design must be described in adequate detail for the committee to judge the quality and feasibility of the proposal and the student’s grasp of the underlying principles, experimental methods, and possible outcomes. Immediately following the oral presentation, the oral defense will be held in closed session with only the presence of the examination committee, which normally consists of the guidance committee and, if required by the individual primary-degree program, a representative from the primary-degree program designated by the program director/chair. For some primary-degree programs, the research advisor cannot be present at the exam. The defense will typically take two to three hours and will center on the student’s proposal but can include any area of scientific knowledge relevant to the proposal and/or what the student has studied in the MPS core courses and other coursework.

The majority of the effort on the written research proposal ***must*** come from the student. However, the student can receive input from Guidance Committee members, from other students, and from various other sources that may be helpful, to make the proposal as thorough, complete, concise, and polished as possible. The role of the research advisor should be to help prepare the student for the examination by directing the student to relevant reviews and research articles, discussing the scope, significance, and specific aims of the project, and discussing strategies for effective writing and oral presentation. ***The research advisor (major professor) should not directly participate in writing or editing of the proposal.***

 ***The purpose of the comprehensive examination is to evaluate the student’s academic and research progress and their preparedness to conduct original research. The primary responsibility for developing an acceptable research proposal, therefore, rests with the student.*** However, the student may seek input/advice from other students or faculty members, and make use of other resources such as workshops on proposal writing in order to develop a strong proposal. Depending on the specifications of their degree-granting program, the student may identify a Reader to comment on their research proposal. The Reader may be a faculty member, a postdoctoral researcher, or an advanced graduate student who is familiar with the required format and expectations of the comprehensive examination, but ***must not be a member of the student’s Comprehensive Examination Committee.*** The Reader will be chosen by the student in consultation with the major professor. To the extent possible, the Reader's expertise should overlap with the topic of the student's research. The Reader is expected to: (1) evaluate and comment on the student’s research proposal, emphasizing the writing format, scientific logic, and clarity of language rather than the specific experimental details of the proposed research; and (2) help the student anticipate potential problems with the research proposal with respect to the presentation and scientific content.

Below is a suggested timeline for a student who decides to seek feedback from a Reader prior to submitting their research proposal to the Comprehensive Examination Committee two weeks before the examination: (1) the student will give the research proposal to the Reader at least five weeks before the comprehensive examination; (2) the Reader will give comments on the research proposal within one week; (3) the student will make revisions in the following two weeks prior to submitting the final draft of their research proposal to the Comprehensive Examination Committee two weeks before the examination.

 The Comprehensive Examination should evaluate the student’s preparedness to conduct original research based on the written proposal, the presentation, and the student’s responses to questions in the examination, not on the examinors’ views of the significance of the proposed research. The following criteria are recommended to be used in evaluating student performance on the Comprehensive Examination. ***First***, the candidate shall demonstrate an understanding of the scope and significance of the research, and shall have defined and adequately defended the specific aims of the proposed project in the context of the state of the field. ***Second***, the candidate shall demonstrate knowledge and understanding of the fundamental concepts on which the thesis project is based. ***Third***, the candidate shall demonstrate adequate knowledge of the basic principles and concepts of molecular plant sciences and of the methods relevant to the proposal. ***Fourth***, the candidate shall demonstrate skills in analytical thinking and in the application of the scientific method to the research topic. ***Fifth***, the student shall have made sufficient progress on their research project to demonstrate an ability to execute relevant experiments and/or computational analyses successfully and to interpret the results. ***Sixth***, the student will have composed a suitable written proposal, including organization of the scientific concepts and appropriate professional writing style. ***Seventh***, the student will have demonstrated adequate presentation skills including organization, clarity, and the ability to address relevant questions, suggestions, and scientific criticism.

The student must pass both the written and oral portions of the exam to pass the Comprehensive Examination. In general, a student who fails either the written or the oral exam will be given one opportunity to repeat the exam, following deadline given by the primary degree-granting program. ***A copy of the results of the examination must be sent to the MPS Graduate Secretary by the research advisor without delay.***

## G. DISSERTATION

A student’s dissertation must present their original research and make a significant contribution to knowledge in the field of molecular plant sciences. Typically, the Guidance Committee should approve the proposed research program at the time of the written part of the comprehensive exam. Any changes made to that research plan must be approved by the Guidance Committee to avoid any confusion about the final expected content of the dissertation or the amount of work that it comprises.

 The dissertation must be approved by the student's research advisor as being in final form before it is distributed to the Guidance Committee. The unbound dissertation or a digital copy, as preferred by the committee members, must be distributed to each committee member at least two weeks (or following the primary degree-granting program/department’s requirement) prior to the Final Examination.

## H. FINAL EXAMINATION (DISSERTATION DEFENSE)

 ***Important note: Students must be enrolled for at least one credit at the time they take their final examination.*** The exam procedure includes a public presentation of the dissertation results, followed by a closed-door examination by the Examination Committee.

 The student schedules the final oral examination and should notify the MPS Graduate Secretary of the defense schedule at least two weeks before the exam. The MPS Graduate Secretary distributes notice of the seminar and examination at least one week in advance.

A minimum of three hours should be set aside for the exam and all members of the examining committee should participate during the entire period. For the final examination, the student should be prepared to explain, discuss, and defend:

* Reasons for the study
* Methods used
* Major findings and their significance
* Unanswered problems suggested by the research

 The final oral examination will be primarily in defense of the dissertation, but may include general knowledge as well. The decision of the Guidance Committee will be recorded on the "Record of Completion of Requirements for the Doctoral Degree." ***The research advisor or an MPS faculty on the Guidance Committee should notify the MPS Graduate Secretary of the decision without delay***. A student who fails their dissertation defense and intends to repeat the exam will be provided with an explanation of the reasons for the Guidance Committee’s decision that is sufficiently clear and specific to allow the student to work to address the committee’s criticisms. The student will be given one opportunity to successfully repeat the exam.

## I. FINALIZING THE DISSERTATION

 After the student has passed the final oral examination in defense of the dissertation, the student must incorporate any changes or corrections required by the committee before presenting it to the research advisor for final review and signature of the bookplate.

 MSU only accepts electronic dissertations submitted via ProQuest. See instructions for electronic submissions: <http://grad.msu.edu/etd/>. The target date for the final approval of an electronic dissertation to the Graduate School for graduating the semester of that submission is typically ***five*** working days prior to the first day of classes for the next semester. Be aware that a submission via ProQuest does not mean that the document has been accepted, as the review process is interactive and final approval can take days or weeks. Graduation in the semester of the electronic submission is only guaranteed if the document is approved on or before the target date for that semester*.*

## J. FINAL CERTIFICATION

In order to graduate:

1. The student must submit an ***Application******for Graduation*** through the MSU Student Information System (SIS) very early during (or before) the semester they plan to defend. With help from the primary degree-granting department/program Graduate Secretary, the student should take note of the various deadlines provided by the Graduate School.
2. After the thesis is approved by the Graduate School, a ***Record of Dissertation and Oral Examination*** form received ***by the student’ primary degree-granting department/program*** should be shared with the MPS Graduate Secretary, who will examine the student’s records to verify their completion of the requirements. It is important that a student makes certain that all information is placed and maintained in the SIS. If everything is in order, the MPS Graduate Secretary will confer the student’s degree so that it can be routed to the College, Graduate School and Registrar’s office. ***Please note, it is the responsibility of the student and their primary degree-granting department/program office to send the Record of Dissertation and Oral Examination to MPS before the degree can be approved by MPS.***
3. Before leaving MSU, students should check with the Degree Certification Office to make certain that their credentials are in order. Their records are used to determine completion of the degree requirements. Discrepancies may delay the granting of the degree.
4. By University rule, students must complete the dissertation, and all the other requirements, within ***eight years*** of entering the doctoral program. The MPS program expects doctoral students to finish all the requirements in five to six years. Under exceptional circumstances, further extension of the University time limit can be granted but must be approved by the College and the Graduate School.

## K. TYPICAL TIMELINE FOR THE PH.D. DEGREE

 The typical student will devote most of their ***first year*** taking the required MPS core courses and elective coursework to begin mastering the relevant subject areas. An important aspect of graduate coursework is delving into the primary scientific literature, learning how to integrate and summarize this information both in speaking and in writing, and engaging in open discussions and collegial debates about the strengths and limitations of that literature. Typically, students will identify their research advisor (major professor) in their first year and begin to meet regularly with that individual to discuss possible ideas for research, suggestions for scientific literature to read, the composition of their guidance committee, required and recommended courses, etc.

 In the ***second year***, most students will continue with their elective coursework to meet both MPS and department/program requirements, conduct dissertation research, and assemble their guidance committee. During this time, many students may also fulfill a departmental teaching requirement. As the second year progresses, students will typically begin preparing for the comprehensive exam.

 By the start of their ***third year***, students should have developed a concrete plan/proposal for their research in consultation with the research advisor, guidance committee, and primary degree program. However, every Ph.D. student should realize that there are no guarantees that a scientific project, however interesting or clever, will succeed. Hence, students should remain flexible by considering changes to their original research plan or even the development of a new project to replace their original one. All of this planning should, of course, involve deliberation and consultation with the research advisor and guidance committee. Other MPS faculty and graduate peers in the MPS program will also often be excellent sounding boards to discuss research challenges and opportunities.

 The typical MPS doctoral student is thoroughly immersed in their research in the ***third, fourth, and fifth years***. Many students will continue to avail themselves of occasional courses, seminars, workshops, and reading groups to further master the knowledge base in their areas of interest and even to look ahead toward areas they might want to pursue later in their scientific careers. Consultation, discussion, and even good-spirited debate with one’s research advisor, guidance committee, and peers should continue to occur while the research is in progress. MPS students in these years should also avail themselves of opportunities to attend scientific meetings and, once they are ready, present the results of their own on-going research via posters and talks at such meetings. In the ***fifth year*** or so, most MPS students will wrap up their research project, write their dissertation, and seek a postdoctoral position or other employment.

# IV. SELECTION OF DISSERTATION ADVISOR

 The graduate student should select their research advisor (major professor) within their first academic year in the program; this requires mutual consent between the professor and student, and many factors go into this important decision. It is the collective responsibility of all MPS faculty to advise graduate students in their research and professional development and students should feel free to seek advice from any MPS faculty member. A student’s primary degree department is also responsible for approving the choice of research advisor (major professor). [Guidelines for Graduate Student Advising and Mentoring Relationships](https://grad.msu.edu/sites/default/files/content/researchintegrity/guidelines.pdf) can be found on the Graduate School website. Each department may also have additional guidelines and expectations for successful advising and mentoring that are specifically relevant to the disciplines represented in their department. MPS students are encouraged to consult all these materials and discuss them with their research advisor.

The research advisor shall, with the help of the student's Guidance Committee, advise and mentor the student in their research and professional development. ***The research advisor should be a regular faculty member in the MPS program*.** If an MPS student selects a nonparticipating MSU faculty member as their research advisor, that faculty member can apply to become a member of the MPS program. If the student cannot find a faculty member to serve as their research advisor, they should immediately consult the MPS Director, members of the MPS Executive Committee, or the primary degree program chair or graduate advisor to help find a suitable match.

 Regardless of the student’s primary degree program, there are some important issues to consider when choosing a research advisor. These include identifying a faculty member with similar research interests to those of the student. Also, the student should consider the facilities that the professor has to support the student’s research interest, including equipment and laboratory space. When offered a research assistantship, students should be aware that research funding to the professor has a limited time frame, and so the duration of any assistantship should be discussed, as well as the expectations of the professor for the student and their research activities. Finally, a graduate student should consider their personal compatibility with the potential research advisor. A clear understanding between the student and the research advisor about their individual and mutual expectations will help to promote the development of the student’s academic and scientific potential. The research advisor, and the members of the student's guidance committee, are officially recognized by the University when entered into GradPlan (Ph.D. students; <https://grad.msu.edu/gradplan>) and approved.

 A professional relationship is expected between the graduate student and their research advisor, as well as other members of the student’s guidance committee. If irresolvable disagreements arise between the student, professor, and/or guidance committee, the initial task of conflict resolution rests with the primary degree-granting department of the student and research advisor. If the parties involved are from different departments, then the grievance procedures of the College of Natural Sciences will be followed, since it serves as the lead college for the MPS Program. In some cases, the student and faculty member may be advised to seek further assistance from the Office of the Ombudsperson, the MSU Counseling Center, or the Dean of the Graduate School. MSU policies on [Graduate Students Rights and Responsibilities](http://splife.studentlife.msu.edu/graduate-student-rights-and-responsibilities), including procedures for adjudication of cases involving these rights and responsibilities, are available at the [Office of the Ombudsperson](https://ombud.msu.edu/academic-integrity/).

 Most graduate students have the same research advisor throughout their graduate training, but ***students should be aware that it is possible to change to another research advisor***. Such a shift might be desirable, for example, if the student determines that their research interests are much more closely aligned with those of another faculty member than with those of the current research advisor. A change may sometimes also be appropriate if a student and faculty member find that their styles of discussion and mentoring are not mutually compatible. Any such change must involve timely discussions with the MPS director and the graduate director in the student’s primary degree-granting department, and a change should be pursued as early as possible in the graduate student’s training program.

 In cases that the research advisor leaves MSU before the student completes their degree program, the student should consult the MPS Director and the chair of the primary degree-granting department to identify a suitable replacement. It is the joint responsibility of the student, the primary degree department/program, and the MPS program to make arrangements for completion of the degree, and it requires mutual consent between the student and a research advisor.

# V. SELECTION AND DUTIES OF THE GUIDANCE COMMITTEE

 The student’s Guidance Committee is selected by the student in consultation with the research advisor and is subject to approval by the MPS Director via [GradPlan](https://grad.msu.edu/gradplan). The members of the Guidance Committee are normally selected based upon research and professional expertise so as to best advise the student in specific aspects of their proposed research and professional development. Changes in membership may be made by the student in concurrence with the research advisor and MPS Director. Any changes in committee membership must be approved via GradPlan. The Guidance Committee determines which courses will be required for the student, advises the student with regard to the research project and career development, and administers the Comprehensive and Final Examinations. Guidance Committees are composed of a minimum of four MSU regular faculty members, including the major professor (research advisor). ***At least two of the guidance committee members must******be affiliated with the MPS program****.* Special permission is required if a student wishes to have someone besides MSU tenure-stream faculty on their committee, and there is [a special process to approve](https://grad.msu.edu/non-regular-faculty-committees) non-MSU and non-tenure-stream members.

 The committee must meet yearly with the student to review the student's progress. ***After each committee meeting, the form attesting to this meeting (Annual Progress Report) must be shared with the MPS Graduate Secretary by the student’s research advisor, a designated MPS representative on the committee, or the student’s primary degree department/program office****.*

Functions of the Guidance Committee include:

1. Assistance in planning the program of study and research
2. Formal approval of the program of the student (GradPlan)
3. Advising and assisting in the research process and career development
4. Participation in the Comprehensive and Final Examinations

The Guidance Committee’s main function is to help students succeed in their graduate careers, and timely and frequent consultation with all committee members is essential to accomplish this goal. Committee members can provide the student with valuable aid regarding the selection of courses, research bottlenecks, techniques, professional opportunities, and overall support for the student’s professional development.

# VI. ACADEMIC PERFORMANCE, INTEGRITY, AND SAFETY IN RESEARCH AND CREATIVE ACTIVITIES

## A. ACADEMIC PERFORMANCE

 A student admitted into the MPS graduate program must meet certain minimal academic performance standards. This section provides details about these standards and explains procedures that occur when students encounter difficulties in meeting these expectations.

 A 3.0 cumulative grade point average is the minimum University standard. Research credits are not considered in determining the grade point average. Attainment of the minimum GPA, however, is an insufficient indicator of potential for success in other aspects of the program and in the field. The Guidance Committee is responsible for evaluating the student's competency and rate of progress.

 To assist in the evaluation of progress, the research advisor or the department/program representative on the committee must file an Annual Progress Report, typically immediately after the required annual committee meeting. The student can then add written comments in response for inclusion in the Annual Progress Report. ***A final copy should be submitted to the MPS Graduate Secretary by an MPS member of the Guidance Committee or the research advisor.***

 To remain in good standing, the student also needs to follow primary degree-granting program and University rules for completing their degree requirements in a timely manner. If a student is not making timely and reasonable progress towards their degree in terms of completing coursework, taking the necessary exams, or in completion of their dissertation research, the student should receive a letter from the degree-granting program Chair and the MPS Director specifying the deficiencies and describing the expected steps, with a timetable, to get back in good standing. There will be a space on this letter for the student to respond in writing if they disagree either with the deficiencies listed or with the steps and timetable for remediation. Their response will then become a part of the student's file.

 Comprehensive examinations and final examinations are pass/fail. A student who fails either the written or oral comprehensive examination or dissertation defense will be given one opportunity to successfully repeat the exam, typically within three months but no later than six months. If the student fails an exam a second time, they will be dismissed from the program.

In cases where dismissal is being considered, judgment is made by the student's research advisor and Guidance Committee. To facilitate a decision, the committee may consult the primary degree-granting program Chairperson and the MPS Director. If a majority of the Guidance Committee decides that a student has not met standards, the student may be asked to withdraw or be dismissed according to the procedures as defined in the [Graduate Student Rights and Responsibilities (GSRR)](http://splife.studentlife.msu.edu/graduate-student-rights-and-responsibilities) document.

## B. SAFETY

 Graduate students must complete required safety and ethics training before classes begin in the first semester of their academic program. They must also complete a refresher course each year. Information on safety and ethic training and regulations can be found at <http://www.ehs.msu.edu/>. Further training may be required by the particular lab that the student does research in.

## C. INTEGRITY

 Policies regarding graduate studies at Michigan State University are established at three levels of academic administration: University, College, and Department or Program. This section is intended to bring all of these policies into focus and to clarify those that may appear to be contradictory. ***In general, University policies override College policies, College policies override Department or Program policies, and Department/Program policies override Committee policies.*** Program policies have been established, as necessary, to resolve issues not specifically covered by College or University policies. All MPS graduate students have a primary degree-granting Department/Program that is affiliated with the MPS Program. They are therefore subject to the policies of their degree-granting Department/Program, as well as those of the MPS Program, the College, and the University.

Every faculty advisor and graduate student should be aware of the document MSU [Guidelines for Graduate Student Mentoring and Advising](https://grad.msu.edu/msu-guidelines-graduate-student-mentoring-advising). The Graduate School also has guidelines and rules for responsible conduct of research (RCR): authorship; data management, control, and access; use of animals; and misconduct (<https://grad.msu.edu/policies-and-procedures>).

# VII. GRADUATE STUDENT GRIEVANCE PROCEDURES

 The MPS Program is not the home/primary degree department for any graduate student or faculty appointments. Therefore, most grievances will be pursued through the procedures set by the involved departments, colleges, or other administrative units. In the event that a grievance specifically addresses the MPS Program, the Bylaws stipulate the following procedures:

 Any MPS program faculty member or MPS graduate student may initiate a grievance, alleging violation of existing policies or established practices by an administrator, pursuant to the procedures set forth in the Michigan State University Faculty Grievance Procedure or Michigan State University Graduate Student Grievance Procedure. The MPS Program Director or MPS Executive Committee shall meet with the parties involved in an effort to resolve the grievance informally. In the event that the grievance is not resolved by the parties, a grievance hearing will be arranged by the Faculty Grievance Official (FGO) or Graduate Student Grievance Official pursuant to the procedures set forth in the Faculty Grievance Procedure or Graduate Student Grievance Procedure.

 In general, any grievance that involves graduate students or faculty in the MPS program, and which cannot be resolved informally, will be referred to the appropriate Department and College, and their respective judicial process will then be followed. MSU policies on Graduate Students Rights and Responsibilities, including procedures for adjudicating cases that involve graduate student rights and responsibilities, are available on their websites.

# VIII. WORK RELATED POLICIES

## A. GRADUATE ASSISTANT ILLNESS/INJURY/PREGNANCY LEAVE POLICY

 Read more here: <https://reg.msu.edu/AcademicPrograms/Text.aspx?Section=111#s351>.

## B. SPECIAL INFORMATION FOR INTERNATIONAL STUDENTS

 The Office for International Students and Scholars ([OISS](https://oiss.isp.msu.edu/)) is a resource center for information on matters related to international students and scholars, and their website provides additional information.

# IX. OTHER MPS POLICIES

## A. TRAVEL

All official travel requires a Travel Authorization form to be filled out, typically via the student’s primary degree department/program, prior to traveling. External support is usually from grants and contracts, and will be at the discretion of the principal investigator. Travel funds can be available from the MPS program, primary degree-granting department/program, College, and Graduate School as well.

 When students appointed as TAs or RAs travel outside the U.S. to conduct required dissertation research, to attend meetings, or to collaborate with investigators conducting research abroad, the department or research grant supporting the work will be required to pay for all needed vaccinations and or medications as determined by the MSU Travel Clinic. Students may include those costs in applications for funds from the Research Enhancement or [Travel Grant](https://grad.msu.edu/travel/) programs administered by the Graduate School. Students who plan to travel to a foreign country on Michigan State University activities should visit [Travel at State](http://www.ctlr.msu.edu/COTravel/Default.aspx).

# X. EDUCATION/TRAINING PLAN FOR RESPONSIBLE CONDUCT OF RESEARCH

 Training in the Responsible Conduct of Research (RCR) is essential in the preparation of future scholars and professionals. An understanding of the issues concerning the conduct of research in an increasingly complex world has become critical in successfully navigating the research landscape. Policies for RCR are established by the University, the Colleges, and the home departments.

 Note that for some students additional training above the department minimum may be necessary. For example, students who are supported by NSF, NIH, USDA, and some other federal grants may be required to complete additional specific training; they must meet the timeline and content requirements of training for that grant.

For ***Required training and certification***, online modules may be completed as part of the CITI (Collaborative Institutional Training Initiative) Modules; see [graduate school requirement](https://grad.msu.edu/researchintegrity).

For ***Discussion-based training*,** each student will be required to participate in at least three hours of discussion-based training each year in year one and year two. This training may occur in one-on-one meetings with their research advisor, during lab meetings, during the RCR Workshop Series sponsored by the Graduate School, or a combination of these options. Refresher training may also be comprised of online courses beyond those required in years one and two.

 Compliance will be recorded in the MSU Student Information System (SIS). For example, each student will be required to submit how they received their discussion-based training (one-on-one meetings with their faculty advisor, during lab meetings, or during the RCR Workshop Series), the amount of time spent in discussion, and the topics covered.

# XI. TRAINING IN RELATIONSHIP VIOLENCE AND SEXUAL MISCONDUCT POLICY

 All students are required to take online [training](https://u.policies.msu.edu/doctract/documentportal/08DB66BCB5863CD76D160F733DB5317B) on the MSU Relationship Violence and Sexual Misconduct and Title IX Policy.

# XII. NECESSARY FORMS

University Forms – all done through [GradPlan](https://grad.msu.edu/gradplan):

1. Record of Completion of Dissertation and Oral Examination Requirements

2. Record of Comprehensive Examinations for Doctoral Degree

MPS Specific Forms:

1. [MPS Application Form](https://mps.natsci.msu.edu/admissions/how-to-apply/mps-application-form.aspx)

2. [MPS Dual Major Request Form](https://mps.natsci.msu.edu/current-students/coursework-requirements.aspx), which ***must be filed by the student within two years of being accepted to the MPS Graduate Program***