

GRADUATE EDUCATION IN THE PLANT BREEDING AND GENETICS PROGRAM

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GRADUATE EDUCATION IN THE PLANT BREEDING AND GENETICS PROGRAM

Introduction

You were selected as a graduate student because of your accomplishments and expressed desire for further educational and research experiences. Many facets of graduate study are not identified in the MSU Academic Programs book. It indicates only the requirements necessary for a minimum level of accomplishment. Graduate training involves learning through research, teaching, and extension/outreach experiences as well as courses in a total program of education developed specifically for you.

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

Though certain minimum requirements must be satisfied, a student, under the direction of their major advisor and guidance committee, is given wide range and latitude in developing programs, it is important that he/she accept the responsibility for making early and thoughtful decisions with regard to total program content. Though program changes may be required at a later date, it is important that the overall direction of a graduate student's program including research be developed at an early date.

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

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

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

The general University and College requirements for graduate programs and information concerning graduate school are found at the Michigan State University Graduate School web page: <http://grad.msu.edu/about.htm>. The web page should be consulted even though many of the relevant university and college requirements are included herein. This document is intended to establish policy guidelines to clarify college and university requirements and to relate certain additional requirements with respect to graduate education in the Plant Breeding and Genetics Program.

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

SUMMARY OF REQUIREMENTS

MASTERS DEGREE (M.S.)

ADMISSION REQUIREMENTS

- a. Completion of B.S. or equivalent
- b. Minimum G.P.A. of 3.0
- c. GRE exam score of 1000 minimum with 500 minimum on one section of the Verbal and Quantitative sections. A score of 3 or higher on the Writing Assessment section.
- d. Three letters of recommendation
- e. All international applicants must pass the TOEFL English language test (580 regular, 550 provisional) (237 computer score or 213 provisional computer score).
- f. A faculty member must agree to serve as major professor.
- g. A graduate student not in PBG, but regularly enrolled at MSU, may be admitted after attaining a 3.25 GPA for 1 semester; depending on courses completed.
- h. The PBG Advisory Committee may be petitioned for variance from these requirements.

COURSE CREDIT REQUIREMENTS

- a. 30 credit hours total including research credits; 15 credits 800 level or above.

RESEARCH CREDIT REQUIREMENTS

- a. A minimum of 6 credit hours of 899, but no more than 10.

GUIDANCE AND EXAMINING COMMITTEE

- a. Minimum of three regular faculty members from at least 2 departments. Two must be members of the PBG faculty.
- b. Should be established during the first semester, excluding summer.
- c. Chairperson is major professor.
- d. Candidate and major professor will plan the

program of study as well as the thesis research; subject to approval by the guidance committee.

PROGRAM OF STUDY

- a. The program must include the current PBG core courses (see Appendix) required or the equivalent of such course(s) completed at another institution.
- b. M.S. program must be filed by the end of the second semester.
- c. Each candidate's program will be reviewed by the PBG faculty.

SECOND LANGUAGE REQUIREMENT

- a. None

TEACHING REQUIREMENT

- a. Participation in the teaching of an organized course for at least one semester.

SEMINAR REQUIREMENTS

- a. Enrollment in PBG Seminar course (892), GEN 800 or HRT 894 for 2 credit hours.

FINAL ORAL EXAMINATION

- a. The final examination may be scheduled no earlier than two weeks after a DRAFT of the thesis approved by the major professor has been given to guidance committee members.
- b. The thesis must be in the final format before being reviewed by the guidance committee members.
- c. ALL MEMBERS of the guidance committee must be present for the entire exam period. If a guidance committee member must be absent, the member must appoint someone to represent that member.
- d. A PROGRAM SEMINAR WILL PRECEDE THE EXAMINATION.
- e. Upon scheduling the seminar, a "Final Examination" FORM AND A COPY OF THE THESIS ABSTRACT MUST BE FILED WITH

THE PGB SECRETARY AT LEAST 14 DAYS BEFORE THE EXAMINATION.

- f. A notice will be sent by the PGB Secretary to all PGB faculty and students with a copy of the abstract at least seven days prior to the exam.

THESIS AND ABSTRACT

- a. Each student is referred to the graduate school web page: <http://grad.msu.edu/current.htm#diss> for information on thesis preparation and at <http://grad.msu.edu/current/formatfinal.pdf> for information on submission.
 - 1) Thesis should be bound according to regulations prescribed.
 - 2) Distribution of the thesis, microfilming fee and copyrighting is also given on the web page.
- b. The thesis is based on research conducted in partial fulfillment of requirements for the M.S. degree and is prepared under the supervision of the student's major professor. It must be approved by the student's guidance committee.
- c. An abstract, not exceeding 150 words must also be prepared.
- d. Two weeks prior to commencement, a final unbound copy of the thesis with two copies of the abstract must be submitted to the graduate school. For exact dates, consult the academic calendar.
- e. A "journal article" format for the thesis is encouraged.

MICROFILMING AND PUBLICATION OF THESIS

- a. Each master's thesis is to be microfilmed. Abstracts are published in Dissertation Abstracts. Microfilming is considered by the university to be a form of publication but does not preclude printing the thesis in whole or in part as a journal article or monograph. Publication of parts prior to writing the thesis should have guidance committee approval.

ACADEMIC STANDARDS

- a. For retention, the major professor and guidance committee make the decision. For graduation a GPA of at least 3.0 in prescribed courses, EXCLUSIVE OF COLLATERAL COURSES AND RESEARCH, is required. A student not meeting academic requirements may be terminated at any time subject to Graduate Student Rights and Responsibilities procedures.

RESIDENCE

- a. A minimum of six credits must be earned in residence on campus.

WORK IN ABSENTIA

- a. Courses taken at MSU off-campus centers are of equal value to on-campus courses. Courses taken should have prior approval of the major professor, guidance committee, PGB director or dean. Courses taken without approval may or may not be accepted for credit. Research in absentia may be done with guidance committee approval.

TRANSFER CREDITS

- a. A maximum of 9 credits may be transferred if approved by major professor, guidance committee and dean.

TIME LIMITS

- a. The M.S. degree must be completed within five (5) calendar years from the date of initial enrollment.

DOCTOR OF PHILOSOPHY (Ph.D)

ADMISSION REQUIREMENTS

- a. Completion of M.S. or approval by PBG advisory committee
- b. Minimum GPA of 3.0
- c. GRE exam score of 1000 minimum with 500 minimum on 1 section of the Verbal and Quantitative sections. A score of 3 or higher on the Writing Assessment section.
- d. Three letters of recommendation
- e. All international applicants must pass the TOEFL english language test (580 regular score, 550 provisional score) (237 computer score, 213 provisional computer score).
- f. A faculty member must have agreed to serve as major professor.
- g. PBG advisory committee may be petitioned for variance.

COURSE CREDIT REQUIREMENTS

- a. No credit requirement for Ph.D.

RESEARCH CREDIT REQUIREMENTS

- a. Uniform requirement of 24 credits (999) in addition to the course work prescribed by the guidance committee.

GUIDANCE COMMITTEE

- a. Composed of a minimum of four regular faculty members from at least two departments. Two must be members of the PBG faculty.
- b. The guidance committee shall be formed within the first two semesters of doctoral study.
- c. Major professor will serve as chairperson.
- d. The candidate, major professor and guidance committee will plan the program of study as well as the dissertation research.

EXAMINING COMMITTEE FOR COMPREHENSIVE EXAMINATION

- a. Committee is composed of the guidance committee plus a member of the PBG Program Advisory Committee or the PBG Director serving as chairperson during the exam. The chairperson may participate in the exam but does not have a vote.

PROGRAM OF STUDY

(Report of Guidance Committee)

- a. The program must include the current PBG core courses (see Appendix) or equivalent of such course(s) completed at another institution.
- b. The Report of Guidance Committee Form (PhD program) must be filed by the end of the second semester.
- c. Each candidates program will be reviewed by the PBG faculty.

SECOND LANGUAGE REQUIREMENTS

- a. None

TEACHING REQUIREMENTS

- a. Participation in the teaching of an organized course for at least one semester.

SEMINAR REQUIREMENTS

- a. Participation in PBG Seminar course (892), GEN 800 or HRT 894 for 3 credit hours.

COMPREHENSIVE EXAMINATION

- a. Written AND oral examinations are to be taken during the first semester following completion of 80% of course work. The PBG office will distribute a notice to the PBG faculty at least 7 days prior to the

examination. If the student fails to pass, the examination may be rescheduled after a minimum of one semester and a maximum of two semesters of additional study. Failure to pass the second examination within the time limits shall constitute dismissal from the graduate program. The exam may be repeated only once.

FINAL ORAL EXAMINATION

- a. The final examination may be scheduled no earlier than two weeks after a FINAL DRAFT of the dissertation, approved by the major professor(s), has been given to guidance committee members.
- b. The dissertation must be in the final format before being reviewed by the guidance committee members.
- c. ALL MEMBERS of the guidance committee must be present for the entire exam period. If a guidance committee member must be absent, the member must appoint someone to represent that member.
- d. A SEMINAR WILL PRECEDE THE EXAMINATION.
- e. Upon scheduling the seminar, a "Final Examination" FORM AND A COPY OF THE DISSERTATION ABSTRACT MUST BE FILED WITH THE PBG SECRETARY AT LEAST 14 DAYS BEFORE THE EXAMINATION.
- f. A notice will be sent by the PBG Secretary to all PBG faculty with a copy of the abstract at least seven days prior to the exam.

DISSERTATION AND ABSTRACT

- a. Each student is referred to the graduate school web page : <http://grad.msu.edu/current.htm#diss> for information on thesis preparation and at <http://grad.msu.edu/current/formatfinal.pdf> for information on submission.
 - 1) Dissertation should be bound according

to regulations prescribed.

- 2) Distribution of the dissertation, microfilming fee and copyrighting is also given on the web page.
- b. The dissertation is based on research conducted in partial fulfillment of requirements for the Ph.D. degree and is prepared under the supervision of the student's major professor. It must be approved by the student's guidance committee.
- c. An abstract, not exceeding 600 words must also be prepared.
- d. Two weeks prior to commencement, a final unbound copy of the dissertation with two copies of the abstract must be submitted to the Graduate School. For exact dates, consult the academic calendar.
- e. A "journal article" format for the thesis is encouraged.

MICROFILMING AND PUBLICATION OF THE DISSERTATION

- a. All doctoral dissertations are to be microfilmed. Abstracts are published in Dissertation Abstracts. Microfilming is considered by the University to be a form of publication but does not preclude printing the thesis in whole or in part as a journal article or monograph. Publication of parts prior to writing the dissertation should have guidance committee approval.

ACADEMIC STANDARDS

- a. Retention of students will be at the discretion of the major professor and guidance committee. For graduation a GPA of at least 3.0 in prescribed courses, EXCLUSIVE OF COLLATERAL COURSES AND RESEARCH, is required. A student not meeting academic requirements may be terminated at any time subject to Graduate Student Rights and Responsibilities procedures.

RESIDENCE

- a. One year of residence on campus beyond the M.S. degree is required. A year of residence consists of two semesters, involving completion of at least 3 credits of graduate work each semester.

WORK IN ABSENTIA

- a. Courses taken at MSU off-campus centers are of equal value to on-campus courses. Courses taken should have prior approval of the major professor, PBG Director or dean. Courses taken without approval may or may not be accepted for credit. Research in absentia may be done with guidance committee approval.

TRANSFER CREDITS

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

TIME LIMITS

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

PLANT BREEDING AND GENETICS GENERAL POLICIES

ADMISSION

All applications for admission will be processed by the Plant Breeding and Genetics Program (PBG) office and then forwarded to the Admissions Office with a copy retained on file in the Program Office.

Any student who has completed (or is completing) at least a bachelor of science or arts with a GPA of 3.0 or better on a 4.0 scale can apply for post-graduate education in PBG. The GPA for admission to graduate school will be calculated on the basis of courses taken the last two academic years. **THE AVERAGE WILL BE DETERMINED WHETHER UNDER A FIRST OR SECOND BACHELOR'S DEGREE OR MASTER'S DEGREE.**

To be accepted as a graduate student in PBG the Graduate Record Examination (GRE) must be taken and the following standards attained:

- 1) minimum 1000 average total score and;
- 2) a minimum score of 500 on one of the Verbal and Quantitative sections. A score of 3 or higher on the Writing Assessment section.

AN APPLICANT MUST BE ACCEPTED PRIOR TO ADMISSION BY A PBG FACULTY MEMBER WHO IS WILLING TO SERVE AS THE MAJOR PROFESSOR. However, no commitment, either verbal or written, will be made by a faculty member until the completed application packet has been received in the Program and reviewed by the PBG Advisory Committee and Director for acceptance.

A complete packet includes the following:

1. Completed application form
2. Interest sheet
3. Three letters of recommendation
4. Official transcripts from each

college/university attended. The student should have two copies sent to the Office of Admissions and Scholarships; transcripts of work taken at Michigan State University need not be requested. International transcripts must be translated into English and certified if originals are in another language (include original).

5. Graduate Record Exam scores (verbal, quantitative, and writing assessment sections).
6. International students: Financial statement and evidence of financial ability to meet educational and maintenance expenses for each year of their proposed study.
7. TOEFL exam results (for international students)

After an applicant's file is completed, a notice is sent to all faculty members listing the student's name, degrees held, awarding institutions, areas of interest, and need for financial assistance. Special funding is available periodically to assist in recruiting and supporting minority and female candidates and thereby fulfilling affirmative action goals. If after 3 months, no PBG faculty member has indicated an interest in serving as advisor, the applicant is advised and the file is closed. In all instances, acceptance for international applicants is not formally granted until the English Language Center and /or the University Graduate Admissions have signed the application for admission. The PBG Director will send the applicant formal notice of acceptance.

Applicants considering a graduate degree program may be admitted on a regular or provisional status.

Regular:

1. At least one college introductory course in: Algebra, Physics, Genetics, Trigonometry, Organic Chemistry
2. 15 credit hours in plant sciences.
3. GPA of 3.0
4. GRE exam score 1500 with 500 minimum subscores in 2 areas. A score of 3 or higher on the Writing Assessment section.

5. All international applicants must pass the TOEFL english language test (580 regular score, 550 provisional score) (237 computer score, 213 provisional computer score).

Exceptions must be approved by the PBG Program Advisory Committee.

Provisional:

A student may be admitted to graduate school on a provisional status provided that no more than 8 collateral credits are needed. This indicates the student is lacking certain courses considered essential to their program (as listed for "regular" admission). Courses taken to fulfill deficiencies will be listed as collateral and will not apply towards the minimum number of credits required for the degree. Applicants with this status must have a GPA of 3.0 or better. Collateral courses will be specified at the time of admission and may include other courses specified by the major professor.

RESPONSIBILITIES

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

The candidate will file and maintain correct records of progress with the major professor together with the PBG Secretary.

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

The candidate's major professor is the most important partner in a graduate degree program. Committee members serve a valuable function and should be selected early.

Candidate's should keep the major professor informed of their activities and progress. Frequent, short conferences are better than infrequent, long conferences. Such contact

helps prevent disappointment at a later date.

PLANT BREEDING AND GENETICS ADVISORY COMMITTEE

The responsibilities of the Plant Breeding and Genetics Advisory Committee (PBGAC) are set forth in the PBG Bylaws. Their goal is to maintain high standards of graduate education in the program. The committee is composed of 4 PBG faculty members elected by the participating CANR departments.

The PBGAC reviews and approves student applications to the program and recommends program graduate policies to the PBG Director and assures adherence to them. The committee may review the progress of each student and try to avert irregularities that might develop. The committee is available to meet with graduate students, as a group or individually, to discuss graduate education.

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

MAJOR PROFESSOR

The student's major professor is determined before the student arrives in accordance with the academic and commodity interests of the student and the availability and willingness of a faculty member to serve in that capacity. The student should contact the major professor immediately upon arrival at MSU.

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

GUIDANCE COMMITTEE

The guidance committee will be determined by the student and the major professor. The guidance committee appointment form must be completed and filed by the major professor with the PBG Director BY THE END OF THE STUDENT'S SECOND SEMESTER INCLUDING SUMMER. The major professor will serve as chairman of the guidance committee. Each member of the guidance committee must be contacted by the student and be willing to serve before the appointment form is submitted. The guidance committee for the M.S. degree will be composed of at least 3 members (1 is the major professor) from at least two departments with a minimum of two members from the PBG faculty. The committee for the Ph.D. degree will be composed of at least 4 members (1 is the major professor) from at least two departments with a minimum of three members from the PBG faculty. All committee members must be regular faculty at MSU.

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

DIRECT ADMISSION TO Ph.D

A student may be admitted for a Ph.D. without completion of an M.S. degree, with the approval of the major professor, admissions committee and the director of the PBG Program.

READMISSION

If your program of study is interrupted for one or

more semesters, exclusive of summer, you must apply for readmission. A readmission form is available from the Registrar's Office. Readmission is based on the applicant's graduate student standing and the availability of a faculty member to serve as the applicant's major professor.

GRADUATE TEACHING REQUIREMENT

GENERAL POLICIES

The PBG graduate program requires that all graduate students participate in a meaningful teaching experience as a part of their graduate program. Such activity will enhance their overall qualifications and academic experiences.

The recommended method of satisfying the teaching requirement is for the student to participate in the teaching of an organized course during at least one academic semester while enrolled for EACH ADVANCED DEGREE. The student is to work in conjunction with the course instructor and to participate fully in all aspects pertaining to the organization, conduct and evaluation of the course. Duties could include but are not limited to helping organize a new course; reorganizing an existing course; determining what plants, materials and supplies are needed and securing them; assembling, preparing, or revising teaching materials; teaching one or more lectures or laboratories; teaching one or more laboratory sections; helping design, prepare, proctor, and grade exams; grade papers and other assignments; help organize and conduct field trips; help coordinate undergraduate teaching assistants who are teaching laboratory sections; and other assignments related to teaching. Generally, graduate students can meet this requirement by spending 8-12 hours per week during one term. This will vary depending upon a student's background, experience, course requirement, and needs of the program. The student, after consultation with the major professor, shall be responsible for contacting the PBG Director to

arrange for completion of the teaching requirement. For Ph.D. students, the teaching requirement must be completed at least two full semesters before graduation.

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

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

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

Students on assistantships will be called graduate assistants. All graduate assistants must also attend the MSU Teaching Assistant Orientation.

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

SEMINARS

All students must register for and complete 2 and 3 credits, for the M.S. and Ph.D. degrees

respectively, of formal graduate student seminar course, CSS, FOR or HRT 892 per degree at MSU. GEN 800 may be used to fulfill this requirement.

COMPREHENSIVE EXAMINATION FOR THE Ph.D.

A comprehensive knowledge of the student's major and related fields must be demonstrated to the guidance committee by examination, written and oral. Announcement of the oral comprehensive exam must be made to the faculty in writing by the PBG Office at least 7 days prior to the exam. The student will provide the necessary information for the announcement to the PBG Office at least 24 hours before the announcement is due. The announcement concerning the comprehensive examination will include the following statement: "All members of the comprehensive committee, or their designated representatives, must be present during the entire examination". An absent member will name his/her representative.

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

The comprehensive examination must be scheduled during the first semester following completion of 80% of the course work. A student who does not meet this requirement may not be allowed to register for the following semester. The examination shall be written and oral and must be passed before the oral defense of the thesis can be scheduled. The length of the examination, both written and oral, will be determined by the examining committee. The written exam shall be given and completed at

least 2 weeks prior to the oral exam. Room scheduling is the responsibility of the student. Oral exams should not be scheduled later than 2:00 p.m. on any day.

The comprehensive examination may be passed with a maximum of one dissenting vote of the committee. If the student does not pass, the examination may be rescheduled after a minimum of one semester and a maximum of 2 semesters of additional study. Failure to pass the second examination within the time limits shall constitute dismissal from the graduate program. The chairperson of the examining committee shall return the examination decision form to the PBG Secretary within 24 hours of the beginning of the oral exam.

FINAL EXAMINATION FOR M.S. AND Ph.D.

The final examination should be scheduled after the thesis or dissertation has been reviewed by all members of the guidance committee and their suggestions have been incorporated. The thesis or dissertation must conform to University format as directed at the web site: <http://grad.msu.edu>, and should not be bound prior to the exam. All members of the examining or guidance committee must be in attendance throughout the student's seminar and final examination. If a committee member must be absent, his/her designated substitute must attend.

Upon scheduling the seminar, a "final examination" form and a copy of the thesis or dissertation abstract must be filed with the PBG Office at least 8 days before the examination. Faculty will be notified by the PBG Office at least 7 days prior to the examination. The oral examination may cover any course work taken, seminars given in the Department and the research project selected.

All changes in program of study must be approved and any incomplete or deferred grades (except HRT 898, 899, 999) cleared before the

examination can be scheduled. Within 48 hours after the conclusion of the examination, the major professor shall submit a final examination form to the PBG Office. Following the final examination, the dissertation shall be modified as directed by the committee and submitted for distribution as outlined at the graduate school web site: <http://grad.msu.edu>.

REPEAT OF FINAL EXAMINATION

A student may be required to repeat the examination, but must wait at least one full semester, but not more than two, before doing so. If the second exam is not passed, the student will be required to withdraw from graduate studies in the Plant Breeding and Genetics Program.

FINAL EXAMINATION

All changes in a program of study and any incomplete or deferred grades (except 899 and 999) must be cleared before the examination can be scheduled. The examination will determine whether the student has achieved a minimum level of competence in the general area of plant breeding and a comprehensive knowledge of their major area of specialization. It shall encompass both the course of study and defense of thesis. The final decision to pass or fail the student will be rendered by the examining committee. While a unanimous decision is usual, a two-thirds majority vote to pass is sufficient for successful completion of the examination. Each member of the committee will sign the exam certification form for transmittal by the major professor to the Program Director. Written notification of the results of the exam must be presented to the Director within 72 hours of completion of the exam. A student may be required to repeat the exam. If the second exam is not passed, the student will be required to withdraw from graduate studies in PBG.

Following the final examination, the thesis or dissertation should be modified as directed by the committee and submitted for distribution as

outlined at the Graduate School web site: <http://grad.msu.edu>.

FINAL CERTIFICATION

The PBG Director completes the final certification form which is received the semester the student indicates (during registration) they will be completing degree requirements. If all requirements are complete, the form is verified and returned to the Degree Certification Office. The following information is included on the final certification:

1. Names of guidance committee members (Ph.D.)
2. Date of passing comprehensive examination (Ph.D.)
3. Date of dissertation acceptance
4. Date of final examination
5. Dissertation title
6. All courses, with grades, on the program of study, including grade for research credits

It is the responsibility of the student to maintain a current file of their progress as a degree candidate in the PBG Office.

GRADUATE ASSISTANTSHIPS

SELECTION PROCEDURE

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

GENERAL POLICIES

Graduate assistantships may be for a 1/4, 1/2, or 3/4 time basis. Assistantship appointments are for periods of 1 to 4 semesters. The stipend,

activities and course load are proportional to the percent of time designated by the assistantship. Assistantships established by use of university or research contract funds are at three levels:

Level 1-Assistants with B.S. (or equivalent degree) and no graduate experience;

Level 2-Assistants with M.S. (or equivalent degree) and/or one year of graduate experience;

Level 3-Students in the final year of the Ph.D. program.

A student may hold a Level 3 assistantship for only one year. An increase in stipend accompanies an increase in level. Out-of-state tuition is waived, but in-state tuition fees are paid by the graduate assistant. Each student supported by an assistantship is granted 6 credits per semester at no charge.

Full-time course credit load for graduate assistants varies with the time basis of appointment as follows (research credits not limited):

FALL and SPRING SEMESTERS

TIME BASIS	CREDITS/SEMESTER	
	MIN	MAX
1/4	6	16
1/2	6	12
3/4	3	8

EACH GRADUATE ASSISTANT IS RESPONSIBLE TO HIS/HER MAJOR PROFESSOR AND WILL HAVE RESPONSIBILITIES FOR AT LEAST ONE RESEARCH PROJECT. Therefore, responsibilities of assistantships will vary. Enrollment in courses, credit load per semester, training activity, etc., should be approved by the major professor before registering. A student must meet the requirements for Academic Standards and Guidelines for Retention (see University Graduate Studies Publication and page 19 of this handbook) to retain financial assistance. The major professor is responsible for seeing that the assistantship appointment

forms are initiated out of the office of the PBG Secretary in order for them to be ready upon arrival of the student. Delinquency may result in the student having to pay out-of-state registration fees for one term.

TRANSFER CREDITS

Graduate credits earned at another institution, but not used for another degree, may be transferred (up to 9 credits) for the M.S. degree and 1/3 of the total credits for a Ph.D. degree to Michigan State University and used as partial fulfillment of the degree requirements. Credit acceptance is determined by your major professor and guidance committee and must be approved by the PBG Director and the Associate Dean. The credits must be appropriate to your degree and earned within the specified time limits for a M.S. or Ph.D. degree. You must furnish evidence that the credits were not used elsewhere for a degree and were earned while enrolled for graduate study. A "credit evaluation form" must be filed with your program of study. This evaluation may result in credits transferred being less than credits earned.

REGISTRATION PROCEDURES

Before registering, confirm the course of study with the major professor. Failure to follow the program of study may cause delay in completing the degree.

Early enrollment may be used after the first semester. The dates for early enrollment are announced on the web at <http://www.msu.edu/students/>. Early enrollment reserves space in the courses planned. Registration, including payment of fees, will follow at that time and MUST be completed by ALL students.

ACADEMIC STANDARDS AND GUIDELINES FOR RETENTION

Academic standards include grade point average, consideration of your suitability for

conducting research, competency in your major field, and rate of progress toward the degree. The academic standard for course work excluding research is an overall grade point average of 3.00. No credit is given for courses with a grade below 2.0. A grade below 2.0 necessitates your repeating the course. A GRADUATE STUDENT WHOSE GRADE POINT AVERAGE FALLS BELOW A CUMULATIVE 3.0 FOR TWO CONSECUTIVE SEMESTERS WILL BE TERMINATED FROM THE PBG PROGRAM.

It is a disservice to a student to permit continuation toward the degree without the necessary qualifications for retention. Judgement regarding retention is made by the major professor and/or guidance committee. If the retention standards are not met, you may be asked to withdraw according to the procedures as defined in the Graduate Student Rights and Responsibilities Documents.

1. Appointment of Guidance Committee
2. Guidance Committee Report - used to report program of study approved by guidance committee
3. Scheduling of comprehensive examination forms
4. A form to report passing of comprehensive examination
5. Student evaluation

These forms should be obtained as needed. The PBG Director will sign forms requiring department (chairman) approval.