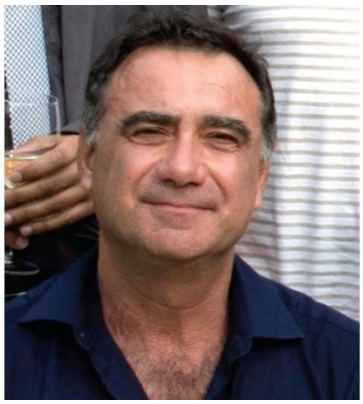
Welcome to the Plant Biology Graduate Program of UC-Riverside. You have chosen to pursue graduate training in one of the top ranked Plant Biology programs in the nation and we hope that your years here will be productive, enjoyable and exciting. This handbook provides you with a single source for much of the information you will need to complete the various technical steps toward your degree. Your primary goal must be to establish your scientific career by becoming an expert in your field, performing pioneering research and publishing your results in highly ranked international scientific journals. We expect that you will also develop skills enabling you to communicate your results and their significance to both the scientific community and the general public. While you will receive competent guidance from our PIs and their senior lab members, you should also get experienced in mentoring others. You may find this a particularly rewarding activity. Most scientists look back on their graduate training as a period of intense learning, discovery, and personal growth, but also lots of fun. Take advantage of the nearby beaches, mountains, and desert, and enjoy concerts and other cultural events around Riverside, Orange County or the LA area. Get involved in department and campus service activities. Interact with your peers and other scientists. At graduate school you will likely make lifelong friendships with other students, postdocs and faculty that can facilitate your future career steps and unlock new opportunities. So, work and study hard, enjoy exciting science, but don't forget to have some fun in Southern California.

Dr. Thomas Eulgem
Chair, Department of Botany & Plant Sciences



Dr. Amy Litt
Vice Chair, Department of Botany & Plant Sciences

TABLE OF CONTENTS

SECTION 1: INTRODUCTION TO THE PROGRAM, FACILITIES AND RESOURCES

SECTION 1A. IMPORTANT CONTACTS

Important Contacts Link

SECTION 1B. THE FIRST STEPS

Welcome to UCR and the Plant Biology Program! Please consult the Incoming Student Information | CNAS Graduate Student Affairs Center (ucr.edu) website for a checklist of things to do in preparation for your first quarter at UCR.

1. Planning for Fall Quarter Classes and Laboratory Rotations

Almost all students will do lab rotations during their first year. Share your first quarter class schedule with the supervisor of your first rotation (or your major professor if you are not rotating) prior to the start of the first quarter. Please keep the Plant Biology SSA and Graduate Advisor for Continuing Students informed about your rotations. For more information about laboratory rotations, see Section 2B.

2. Getting an R'Card

UCR students are required to have an R'Card, which is a multi-functional campus ID card. It provides library privileges, access to the Student Recreation Center, and facilitates other official transactions. You must be an enrolled student to obtain an R'Card, and should obtain one as soon as possible. Please go to http://ucrcard.ucr.edu/ for more information.

3. Establishing California Residency

Domestic non-California residents **must** establish California residency by the second year of study. Please consult the CNAS Graduate Student Affairs Center (GSAC) website for information about residency. Contact the UCR Residency office for more information.

4. International Students: The International Students and Scholars Office

Students who are not U.S. citizens should attend the orientation for International Students (International Student Orientation) as well as any departmental orientation. The International Affairs Office provides important support and information for incoming students (New International Students) as well as continuing students (International Students). The office provides advising, intercultural programming and advocacy including maintaining your immigration status, adjusting to local culture, staying safe, enhancing communication skills, and more.

5. Mail

Mailboxes for all Plant Biology graduate students are located in Batchelor Hall 2150. There is also a bag for outgoing official mail only. Personal mail, even if stamped, may not be placed in this bag.

6. Conference room reservation

Conference rooms can be reserved using the online Facilities Reservation System (https://frs.ucr.edu).

SECTION 1C. HOUSING AND CHILD CARE

1. On-Campus Housing

If you would like to live on campus, add your name to the housing waiting lists at UCR Housing Services.

2. Moving with Children

The Child Development Center at UC Riverside (UCR Early Childhood Services) accepts children from ages 2 months through six years. Add your name to the waiting list as soon as possible. Immunization records are required. For families with school-aged children (ages 5-18), all previous academic and immunization records are required to enroll in Riverside schools.

Graduate students who are employed as a GSR or TA may receive partial reimbursement for on- or off-campus child care as a benefit of their employment. See the following documents for details: Child Care Subsidy | Supporting Graduate Students,

3. Off-Campus Housing
Information about off-campus housing can be found at Off-Campus Housing and at the UCR graduate student listserv. Contact the Student Services Advisor for more information about housing.

SECTION 1D. SECURITY IN BUILDINGS AND SAFETY ON CAMPUS
1. Building Security
Security is an ongoing issue on an open campus. Please do not open building or lab doors for people you do not recognize. Call campus police [(951) 827-5222 or x2-5222] if you have any concerns or see suspicious activity. In an emergency, call 911.

2. Campus Safety Escort Service
The Campus Safety Escort Service (https://wrc.ucr.edu/programs/campus-safety-escort-service) provides secure escorts to your car or other campus destinations. To request an escort, use a CSES red phone (map of their locations can be found at https://wrc.ucr.edu/programs/campus-safety-escort-service). After 11:30 pm, the UCR Campus Police (951) 827-5222) provides escort service.

3. Keys, keycards, and FOBs
Contact your major professor for necessary keys, FOBs, or keycards. Lost keys, FOBs or keycards must be immediately reported to the department Travel Coordinator/Customer Service Administrator or FAO. In the case of a Genomics building keycard or IIGB core FOB, contact the IIGB office.

SECTION 1E. TRAVEL AND ENTERTAINMENT
California law AB 1887 prohibits state-funded travel to states with laws that discriminate based on sexual orientation, gender identity, and gender expression. The University of California and the California State University are covered by the law. The list of states can be found at https://oag.ca.gov/ab1887. Personal funds may be used to travel to conferences in those states.

1. Funding for Travel to Conferences
Prior to your planned trip, contact the department Travel Coordinator to discuss policies regarding allowed expenses, advance payments, and reimbursement procedures. Funds to support graduate student travel to present a paper or poster at scholarly meetings are available from the program, UCR Graduate Student Association and BPSC GSA (https://plantbiology.ucr.edu/graduate-program/current-students/funding-sources).

2. Booking Flights
Note the following regulations:

- You must fly **c**oach class or a discounted class. This policy applies to all travel regardless of the purpose or funding source.
- Under the Fly America Act, only U.S. carriers can be used for travel funded by federal grants and contracts.

3. Rental Cars
A car can be rented when it is more cost-advantageous than other means of transportation however there are restrictions: UC Car Rental Agreements | Accounting Office.

4. UCR Vehicle Checkout
Vehicles for university-related travel are available from Fleet Services. Consult your major professor for access and recharge number. University vehicles require a valid driver's license. Procedures and policies are at Fleet Services.

5. Entertainment Policies
Consult Expenditures for Business Meetings, Entertainment, and Other Occasions for entertainment policies and allowed expenses. Be sure to meet with the departmental Travel Coordinator for latest policies and rates, as well as policies regarding entertainment reimbursement. Note the following restrictions:

- Alcohol expenses (beer, wine, etc.) cannot be refunded.

- There are limits on the number of people who can have their meals refunded when accompanying a seminar speaker or campus visitor.
- You will not be refunded for expenses that exceed the UC guidelines.

SECTION 1F. ORDERING SUPPLIES AND REPAIRING EQUIPMENT

1. Package delivery

For questions about ordering or receiving packages, contact the department Purchasing Specialist. Packages are delivered at following locations:

***Batchelor Hall**:* 2140 Batchelor Hall
Genomics: 1202 Genomics
Boyce Hall: 1415A Boyce

Your PI or lab members will be able to explain to you how to send and receive packages.

2. Petty Cash

For petty cash or any other reimbursement, consult with the department Travel Coordinator. If you are unsure whether to pay for a purchase upfront or use the university purchasing system, contact the department Purchasing Specialist.

SECTION 1G. LABORATORY SAFETY

1. Safety training

All campus personnel are required to complete the online Lab Safety Orientation provided by Environmental Health and Safety. Contact your PI to be added to the lab roster in LHAT, the online Laboratory Hazard Assessment Tool. To register for the training, or for any questions, go to http://ucrlearning.ucr.edu/. You will not be issued a laboratory key until you have completed this training.

Several important documents should be located and reviewed in your lab, including guidelines for emergencies. Your major professor will provide these documents.

2. In case of injury

If you are ill or injured while performing tasks related to your studies, go to the Student Health Center adjacent to parking lot 15 (https://studenthealth.ucr.edu/). If your injury is severe enough that you cannot go to the Health Center, call the Campus Police at ext. 911 or 2-5222.

If you are injured while performing tasks for which you are paid (i.e. working as a GSR or TA), you must obtain treatment at one of the approved Workers' Comp Medical Facilities listed on the flip chart posted in all research and teaching labs. Complete an Incident Report as soon as possible, but no later than 24 hours from the time of the injury. Follow instructions at https://risk.ucr.edu/workerscomp.

If you are a TA and one of the students in the class is injured (regardless of how slight the injury), report it to the instructor of the class and Student Health Service immediately.

SECTION 1H. STUDENT SERVICES LINKS

The UCR Catalog (http://catalog.ucr.edu) contains information about available services and facilities. These links will connect you with services, some of which are discussed further in this Handbook:

- Graduate Student Association UCR GSA
- Campus Life Office Campus Life | University of California, Riverside
- Essential needs Ask About UCR's R'Pantry | Basic Needs Department | UC Riverside
- Graduate Success Center GradSuccess | Graduate Division
- International Students and Scholars Office UCR: International Affairs
- Student Disability Resource Center https://sdrc.ucr.edu
- Campus Ombudsperson Office Office of the Ombuds | Help@UCR
- Campus Health Center UCR Student Health
- Counseling Center Counseling & Psychological Services
- Learning and Study Skills Center Academic Resource Center
- Housing http://housing.ucr.edu

- Food Service UCR Dining Services
- Department of Public Safety (POLICE) UCR Police
- Parking Services UCR Transportation Services
- Financial Aid Office UC Riverside Financial Aid
- Career Planning and Placement Center. UCR Career Center

2. Graduate Student Associations
The campus-wide Graduate Student Association oversees many graduate issues for the campus and represents graduate students with the faculty and administration. All graduate students are automatically members of the GSA. For more information visit UCR GSA.

Botany and Plant Sciences also has a Graduate Student Association (BSPC GSA, mini-GSA, or bGSA) with leadership elected from third year PhD students. bGSA officers represent PLBL graduate students to the campus GSA and departmental committees. The bGSA also provides travel awards and organizes departmental social events. You can find the current bGSA members on the Plant Biology website (https://plantbiology.ucr.edu/graduate-program/botany-graduate-student-association).

3. Health Care
Graduate students are covered by mandatory insurance and receive their health care from the Student Health Center (https://studenthealth.ucr.edu/graduates). Consult the website for details about coverage.

If you or another student is having difficulty managing personal, family or academic problems, the UCR Counseling and Psychological Services (CAPS) Center (http://counseling.ucr.edu) can provide support. If you have concerns, your major professor, the PLBL Graduate Advisor and/or the PLBL Student Services Advisor may be able to provide advice and support.

4. Services for Students with Disabilities
If you have a disability, visit the Student Disability Resource Center Student Disability Resource Center for information and to request any accommodations or resources. If you receive an accommodation, faculty members are legally required to honor it.

5. Help with Essentials
R'Pantry (Ask About UCR's R'Pantry | Basic Needs Department | UC Riverside), located at HUB 269, provides emergency non-perishable food, personal hygiene, household care, and childcare items to both undergraduate and graduate students. They can also connect students to on- and off-campus food resources and provide programs and workshops that improve health and wellness.

6. Graduate Success Center
The GradSuccess program (GradSuccess | Graduate Division) provides a wide variety of support services, including the Graduate Student Resource Center, the Teaching Assistant Development Program, the Mentoring Program, the Graduate Writing Center, and GradQuant.

SECTION 2: GUIDELINES AND PROCEDURES FOR THE PH.D. PROGRAM IN PLANT BIOLOGY

Graduate Division forms and petitions can be accessed at Petitions and Forms | Graduate Division. .

SECTION 2A. OVERVIEW OF PH.D. PROGRAM MILESTONES

Year	***Student Responsibilities***	***Important Dates***
1	Contact major professor or faculty contact	Before classes start
	Nominate and meet with Guidance Committee	First quarter
	Three 6-week lab rotations	See rotation schedule
	Join a lab	See rotation schedule

Year	***Student Responsibilities***	***Important Dates***
2	Nominate Qualifying Exam Committee	At least 3 months before exam
	Submit Dissertation Proposal to QE Committee	At least 4 weeks before written exam
	Pass Qualifying Exam	Prior to 7th quarter
	Advance to candidacy, nominate Dissertation Committee	After all coursework and qualifying exam are completed
3	3rd-year BPSC 250 seminar	Third year
5	Complete and defend dissertation	Fifth year

SECTION 2B. MAJOR PROFESSORS (PIs) AND LAB ROTATIONS

1. Rotations

During the first year, PLBL graduate students are strongly encouraged to do three 6-week rotations in three different PLBL laboratories. Exceptions may be made to allow students to join a lab with no rotations. Students who do not plan to rotate must request a waiver from the departmental graduate student educational advisory committee (GEAC). Rotating students are expected to complete all three rotations.

Students will receive a grade for rotations through BPSC 291 and BPSC 297 (see below or the catalog for information about these research courses). When registering, students should split their research units between these two courses and sign up for BPSC 297 with their first rotation PI and BPSC 291 with their second rotation PI.

At the start of a rotation, the student and PI should discuss the specific expectations for the rotation. These include frequency of meetings with the PI and other personnel, lab meetings, maintaining a lab notebook and storing data, time commitment, the PI's vacation policy, and written or oral presentations and reports, as well as other issues.

At the end of each rotation, students and PIs hosting rotation students should submit an evaluation of the rotation. These evaluations go to the Graduate Advisor and are strictly confidential.

- Student's evaluation of the rotation: https://ucrbsgsac.wufoo.com/forms/q34b4ur07k4rjj/
- PI's evaluation of the rotation: https://ucrbsgsac.wufoo.com/forms/qrn2b0601vx4wm/

2. Choosing a lab and PI

When setting up rotations, students should discuss future funding with each PI and be sure they understand clearly if the PI has or expects to have funds for their support. At the time a student joins a lab, the major professor becomes responsible for support. Students should not be expected, and should not expect, to TA every quarter, and TA positions beyond those required for the program are not guaranteed. Faculty members must be transparent about their ability to support the student with grant funds through their fifth year.

Neither rotating students nor PIs hosting rotation students should commit to a student joining a lab prior to completion of all three rotations. If a student feels pressure from a rotation advisor, the student should discuss this situation with the Graduate Advisor. Decisions should be made through consultation between students and potential PIs after the final rotation.

SECTION 2C. THE GUIDANCE COMMITTEE AND YOUR COURSE PROGRAM

During the first quarter, students should assemble a Guidance Committee that will assist them with planning their course program. The Guidance Committee consists of three faculty members. The Chair should be your major professor or one of the rotation PIs. It is helpful, but not necessary, for the other two faculty members to align with your interests. Once Guidance Committee members are identified, the student, major professor/guidance committee chair, and two other committee members must sign the Ph.D. Guidance Committee Meeting Forms. The committee does not require approval, nor do changes to the committee, which may occur once your research areas and major professor are defined. Changes to the committee should be communicated to the Student Services Advisor.

The Guidance Committee should meet with the student during the first quarter to establish the course program. The forms are available at Ph.D. Guidance Committee Meeting Forms. The student should fill out the *PhD. Guidance Committee Appointment Form* (page 1), *Ph.D. Curriculum Planning Form* (page 2), the section of the *Ph.D. Course Program Form* (page 3) listing the courses they have taken to fulfill the departmental entrance requirements, and the *Other Courses Taken That Apply to Degree Form* (page 5). The rest of the *Ph.D. Course Program Form* and the *Courses Required by the Guidance Committee Form* (page 4) should be filled out together with the Committee during the meeting. Committee members will sign the form electronically once it is completed.

Forms	Before the meeting	During the meeting
Ph.D. Curriculum Planning Form	--	Completed by student and committee
Ph.D. Course Program Form	Prerequisite list filled in by student	Rest of form completed by student and committee
Other Courses Taken That Apply to Degree Form	Completed by student	-
Courses Required by the Guidance Committee Form	-	Completed by student and committee

A checklist will be provided by the Graduate Advisor to help ensure the forms are fully completed. If the Guidance Committee feels waivers should be requested for any pre-requisites or program requirements, the Guidance Committee Chair should write a memo and send it to the Graduate Advisor who will bring it to the Educational Advisory Committee for approval. If the waiver is requested due to a Graduate Division policy, the Graduate Advisor will draft a memo and send it to Graduate Division. The forms must be signed and dated by the Guidance Committee and submitted to the Student Services Advisor for approval by the GEAC.

2D. GENERAL REQUIREMENTS FOR THE PH.D. IN PLANT BIOLOGY

1. Overview of Coursework Requirements

Consult your Degree Audit for a detailed list of program requirements.

Courses required all Ph.D. students:

Professional Development: All first-year students must enroll in BPSC 200A and BPSC 200B.

BPSC 250: Students must enroll in BPSC 250 until advancement to candidacy (then, two quarters per year). Students must enroll for credit during the quarter they present their research; in all other quarters they register for S/NC grading.

BPSC 240: All students must complete at least one quarter of BPSC 240 *before* they advance to candidacy. Alternative courses can be taken to satisfy this requirement; please consult with the Student Services Advisor or Graduate Advisor for further information.

Useful courses to supplement current course offerings (if a course you require is not offered):

BPSC 290 Directed Studies. BPSC 290 is used for independent studies in a subject that is *not* covered by a standard course, and requires agreement with a faculty member who will act as instructor. Students must submit a 290 petition prior to registering.

BPSC 292: Concurrent and Advanced Studies. Enroll in this concurrently with an undergraduate course to receive graduate credit for the course. You will need to do additional, graduate level work beyond what is required for the undergraduate course. Consent of instructor is required.

Research courses:

BPSC 291: Individual Study in Coordinated Areas. Enroll in this if you have not yet advanced to candidacy and need more than 6 units of research to reach 12 units. Use 297 first, and then fill in with 291.

BPSC 297: Directed Research. Enroll in this if you are a M.S. or Ph.D. student **who has not advanced to candidacy**. You can enroll in a maximum of 6 units per quarter.

BPSC 299: Research for Thesis or Dissertation. Enroll in this **after you advance to candidacy**. You can enroll in a maximum of 12 units per quarter.

2. Major and Minor Areas of Specialization

Students should identify one "major area" and two "minor areas" of specialization at the time of their first Guidance Committee meeting, and they must take three graduate-level classes (11-12 units) that align with the areas of specialization. Graduate courses taken previously may be considered towards fulfilling these requirements. If a student's proposed course program deviates from the program requirements, the Guidance Committee should provide a rationale for this decision on the Curriculum Planning Form and in memo to the Graduate Advisor, who will bring the request to the GEAC.

Membership on a student's Qualifying Exam Committee is based on the major area and minor areas as listed on the guidance forms (see section 2E). If a student changes the direction of their research, they should be sure to update their major/minor areas and course choices immediately to avoid complications with their qualifying exam. These changes should be entered into the forms by crossing out the old choices and writing in the new (so old and new are both visible). These changes must be approved by the Guidance Committee and GEAC.

3. BPSC 250 Seminar Requirements

Until advancement to candidacy, all students in the Ph.D. Program must enroll in the BPSC 250 Seminar each quarter that it is offered. Upon advancement, Ph.D. candidates must enroll in BPSC 250 two quarters per year until conferral of the degree. If a student will miss a quarter due to field work, going on filing fee, or other reason, they must enroll for the other two quarters.

BPSC 250 is graded S/NC. Students can miss one seminar per quarter and receive a passing grade. If a student cannot attend for an entire quarter, they must file a waiver at Petitions and Forms | Graduate Division.

All Ph.D. students must present a 3rd-year seminar as part of the BPSC seminar series. Students must be enrolled for a letter grade during the quarter in which they give this presentation.

Students who receive an MS at UCR and then enroll in the Ph.D. program cannot use a BPSC 250 seminar that they presented while in the Master's program to substitute for the BPSC 250 seminar requirement in the PhD program.

4. Annual Guidance/Dissertation Committee meeting

All Ph.D. students must meet with their Guidance or Dissertation Committees at *least once per year* to review progress, including the years in which they take their Qualifying Exam or defend their dissertation. This meeting is covered in Section 4.

5. Teaching Experience

All PLBL PhD students must serve at least one quarter as a 50% TA for a UCR undergraduate or graduate course. See Section 6 for more information on this requirement.

SECTION 2E. THE QUALIFYING EXAMINATION

The purpose of the Qualifying Examination (QE) is to evaluate the student's preparedness for their PhD dissertation research. The exam will focus on the student's knowledge of their major and minor areas, the theoretical background of their thesis project and their research proposal.

1. Formation of the Qualifying Examination Committee

Students must take the QE before the start of their seventh academic year quarter. They should form their QE Committee at least three months before the date of their written exam. This provides time for discussion with committee members, to set dates for the written and oral exam, and to study. They should choose the committee members with input from their major professor and confirm the willingness of each to serve on the committee.

The QE Committee consists of five members and must include:

- At least two members who will examine the student in the major area and one member for each minor area.
- At least three of the members, including the committee Chair, must be members of the Plant Biology Graduate Program.
    - The student's major professor cannot be a member of the QE Committee.
- One Oversight member, whose role is to ensure the exam complies with UCR Senate policies.
    - The Oversight member cannot be a member of the PLBL program and does not need expertise in the student's research area.
- Cooperating Faculty Members and Cooperative Extension Specialists in the PLBL program can serve on QE committees but cannot be chair or oversight member.
- When domestic partners or spouses are a majority of the faculty on the committee, another faculty member must be added to the Committee.

In addition to the Committee members, two alternate members should be identified. The student must confirm that a faculty member is willing to serve as an alternate and their availability for the exam dates should be confirmed.

Once the committee has been established, the *Request for Formation of the PhD Qualifying Examination Committee Form*, located in the appendix, must be filled out by the student and signed by all committee members and alternates. The form should be submitted to the Student Services Advisor, who will submit it to the GEAC for approval, at least three months before the proposed exam date. Upon approval of this form, the student must submit the Nomination for Oral Qualifying Exam Committee Form (https://graduate.ucr.edu/petitions-and-forms) for Graduate Division approval.

2. Changing Qualifying Exam Committee Members

If there is a change in the composition of the members of the QE Committee, the *Request for Formation of the PhD Qualifying Examination Committee Form* should be revised and a memo of explanation sent to the Graduate Advisor. The GEAC must approve the change, and then an updated Nomination for Oral Qualifying Exam Committee (https://graduate.ucr.edu/petitions-and-forms) must be submitted to Graduate Division for approval no later than two weeks before the exam. If a change must be made less than two weeks prior to the exam, the Student Services Advisor must be informed of the urgency of the request and the reasons for these changes.

3. Role of the Chair of the Qualifying Exam Committee

Once the Committee has been approved by Graduate Division, the student must meet with the Chair of the Committee. The Chair of the Committee should obtain the *Chair of Exams Procedures* document which describes their role or responsibilities before, during, and after the exams. The student and chair should discuss the timing and expectations for the exam.

4. Setting the Date and Rooms for the Exams

Students are required to take the QE before the start of their 7th academic year quarter but are strongly urged to take it during their 6th quarter (typically spring quarter of the second year). This is particularly important for international students, who must pay non-resident tuition if they have not passed by the start of the 7th quarter. The student should consult with the members of their QE Committee to select dates for the written and oral examinations, typically two weeks apart. Once these are set, the student should reserve rooms for the written and oral exams (https://chassintranet.ucr.edu/frs/index.do) and should inform Committee members. The PLBL Student Services Advisor can assist with room reservations.

5. Preparation for the Examination

The student should meet with each of the QE Committee members to discuss their likely emphasis for the written and oral exams. At least 1 month prior to the written exams, the student must submit a research proposal to the Committee.

6. Guidelines for the Research Proposal

The research proposal should be a summary of the dissertation research plans and current progress. The proposal should be developed in consultation with the Major Professor. However, the document must be written by the student alone. Although the Major Professor is expected to read and make comments on the research proposal, the Major Professor should *not* write any part of the proposal.

The Research Proposal should summarize the major objectives of the proposed project. The text, figures and tables together must be 8-10 pages single-spaced with 1-inch margins and Times Roman 12-point font or Arial 11-point font (or equivalent). Cited literature is not counted in the page limit. Potential sections of the proposal might include:

- **Introduction:** Introduces the committee to the proposed area of work, including a brief literature review, and provides a broad statement of the problem.
- **Research Objectives and Hypotheses:** Clearly articulated questions and/or hypotheses that will guide the proposed research and address the broad statement outlined in the introduction. Three or four objectives are common.
- **Rationale and Significance:** How does the research contribute to the field? What are the unique aspects of the proposed research? What is its importance for the scientific community, as well as in the broader context of society?
- **Progress to Date (if applicable):** This may be integrated into the Experimental Plan (below) or be a stand-alone section.
- **Experimental Plan:** The methods section should be briefly outlined and referenced. A student should be prepared to discuss the detailed methods in the exam.

After completion of the Qualifying Exam, the student should revise their research proposal based on recommendations by the Qualifying Exam Committee and discuss with their PI. The revised proposal must be submitted within one month to the student's Dissertation Committee, which will evaluate the revisions. The revisions should be accompanied by a document outlining the revisions recommended by the Qualifying Exam Committee and how they were addressed, to facilitate the ability of the Dissertation Committee to determine whether recommendations have been considered and appropriate changes have been made to the proposal. The Dissertation Committee will inform the student within two weeks if further changes are needed. If so, the student will submit a second revision within two weeks of hearing from the Dissertation Committee.

7. The Examination Timeline

The written portion of the QE takes place over two consecutive days, morning and afternoon. The student must pass the Written Examination to proceed to the Oral Examination. The Oral Examination, three hours, is usually scheduled one to two weeks after the Written Examination so that the student may meet with their committee members between the two exams.

8. The Written Examination

The written exam is based on coursework and the student's research proposal. Each Committee Member submits questions for a three-hour written examination to the Chair and decides if their portion will be open book, open internet, both, or neither. The Oversight member does not usually submit written questions but has the option to do so.

The order of the written exams is chosen by the student. The Chair will provide the student with the questions for each session. The student may write their answers on paper or use a laptop if desired. They must hand-draw drawings, tables or graphs. After the student completes each session, they deliver their answers to the Chair, who relays them back to the committee members for grading. The committee members communicate the results to Chair, and when all are graded, the Chair informs the student and the Student Services Advisor of the outcome.

After the written exam, students must talk to the Chair and each committee member to identify strengths and weaknesses in their exams. The student should work with committee members to remedy perceived weaknesses before the oral exam.

The written exams are graded on a Pass/Fail basis. There is no "qualified" pass. Students pass if they pass three of four written exams; if they fail more than one exam, they fail the exam. If they don't pass, the QE Committee will decide how many and which of the sections must be retaken. A student may retake the written exam once.

The Chair sends a copy of the written exam and the results to the Student Services Advisor, who submits the form *Report of Exam or Degree Requirement to Graduate Division*.

9. The Oral Examination

General Information

The oral examination is a defense of the student's research proposal, and typically lasts 2.5 to 3 hours. **In-person oral qualifying exams and dissertation defense close-door meetings are strongly recommended, and every effort should be made to hold the exam in person.** However, if unusual circumstances exist that prohibit a fully in-person meeting, a hybrid or fully online option should be made available, in agreement with the committee chair and student, and approval by the graduate advisor (who may find it necessary to consult with the Graduate Educational Advisory Committee). If the oral qualifying exam has been scheduled for in-person, but a committee member has emergency circumstances, then remote accommodation should be made available for that faculty member. The priority should be to hold the exam and/or defense on the originally scheduled day, unless extenuating circumstances prevent this.

Oral Presentation

During the first 15-20 minutes of the oral exam, the student presents a summary of their academic training and long-term career goals, followed by an overview of their research proposal. The presentation can be delivered as a chalk talk or using slides. If slides are used, they must be in pdf format, not powerpoint (no presenter notes allowed). The time will be strictly enforced. The remainder of the exam will be Q&A with the expectation that responses will involve presentation of ideas on a white board.

Structure of the Oral Exam

The typical sequence of events for the oral examination is:

- The student chooses their preferred order of examiners. The Chair must ask their questions last.
- The student leaves the room for a few minutes while the committee discusses the written exam and the student's background.
- The student returns and gives their presentation. They usually start with a summary of their educational background and career goals.
- Each committee member is given ~20 minutes to ask the student questions. There is usually a 5 to 10-minute break after the second or third committee member's questions.
- If time permits, there may be a second round of questions.
- The student leaves the room while the committee deliberates on the exam.
- When the committee has reached a decision, the student returns and learns the committee's decision.
- After the exam, the Chair conveys their concerns to the student and their major professor. The major professor then becomes responsible for ensuring appropriate revisions and changes are made.
- The student is not allowed to supply refreshments for the committee.

Outcome of the Oral Exam

To pass the oral exam, there can be no more than one failing vote. The Chair of the Committee will inform the Major Professor as well as to the Graduate Advisor and Student Services Advisor of the outcome of the exam. The student should discuss their performance with committee members within a few days after the exam.

If a student does not pass the Oral QE, the committee will relay the reasons for the failure and suggest mechanisms to address the concerns. The second oral examination cannot be taken sooner than three months after the first exam. The student must pass the second oral exam to remain in the graduate program.

10. Academic Appeal of an Exam Decision

There are only two valid grounds for an appeal: (1) a procedural error and/or (2) use of non-academic criteria to evaluate academic work. The non-academic criteria could include personal bias and violations of the campus nondiscrimination policy.

If any member of the committee or the graduate student (the appellant) believes that unfair or improper procedures were followed, the appellant should first seek an informal resolution by contacting the Plant Biology Graduate Advisor or the Vice Chair of the Department. This process must be initiated within two weeks of the academic decision. A written document outlining the grounds for the appeal and any supporting documentation should be provided. The Graduate Advisor or Vice Chair will seek an appropriate resolution.

If an informal resolution is not reached, the Graduate Advisor or Vice Chair will bring the appeal to the Graduate Educational Advisory Committee (EAC) for consideration. The GEAC will determine whether the appeal has valid grounds, referring to the two possible criteria stated above. If the EAC determines that there are valid grounds for an appeal, then the student will be so informed. The GEAC will then conduct a hearing by consulting with the student and, separately, with one or more committee members regarding the issues raised in the appeal. After due deliberation, the EAC will make a final decision. There are two possible outcomes. The GEAC will decide either that: (1) the appeal was upheld or (2) the appeal was not upheld. If the EAC determines the appeal was upheld by the hearing process, then the exam under contention shall be declared null and void. However, it should be noted that the pass/fail decision cannot be overturned (i.e. a "fail" shall not be overturned to a "pass", nor a "pass" overturned to a "fail"). The GEAC will set an appropriate timeline for a replacement qualifying exam and make recommendations regarding committee composition.

The GEAC will report the results of the appeal in the form of a memo. The GEAC will make every effort to consider the appeal and render a recommendation promptly. Whenever possible, the appellant will be informed of the outcome of the appeal within two weeks. The Graduate Division will be informed promptly of the results of the examinations. The appellant has the right to appeal academic decisions made at the program level to the Graduate Dean (Regulations and Procedures | Graduate Division).

If any member of the GEAC has a conflict of interest in the appeal decision, they will be recused from the appeals process. A minimum of four GEAC faculty members must be present during the consultations and deliberations involved with an appeal. If it is necessary for more than two GEAC members to be recused for the appeals process, then the non-recused GEAC members will appoint additional Plant Biology faculty to the appeals committee to assure a prompt and judicious consideration of the appeal. Student GEAC members do not participate in the appeal process.[1]

11. Advancement to Candidacy

Once the student passes the Qualifying Exam and the results are reported to Graduate Division, if the student has completed all the other requirements, Graduate Division will process their advancement to candidacy. Upon receiving the email confirming their advancement, students should inform the Student Services Advisor to ensure all parties have been notified.

SECTION 2F. FROM CANDIDACY TO DISSERTATION

1. The Dissertation Committee

The Dissertation Committee replaces the Guidance Committee. This committee, with the Major Professor as Chair, usually consists of three members, a majority of which must be from the Plant Biology Graduate Program. To avoid conflicts of interest or the appearance of a conflict of interest, when domestic partners or spouses are a majority on a Dissertation Committee, another faculty member should be added to the Committee. The Dissertation Committee meets at least once per year to evaluate the student's research progress (see section 4). Meetings may be held more frequently as needed. When the results of the Oral QE are submitted, the student must submit the names of their Dissertation Committee. The Graduate Division form will require for them to enter at least the name of the Chair. The rest of the committee names can be

[1] Change made 12-11-2013 per Graduate Division request

submitted at a later time, but must be submitted before the start of the next quarter or a hold will be put on their account.

2. Submission and Approval of Dissertation Proposal
The revised dissertation proposal must be approved by the Dissertation Committee. A copy of the should be sent to the Student Services Advisor who will add it to the student's file. If a student does not meet this requirement, their progress will be considered unacceptable.

3. Dissertation Completion
Students should check Graduate Division's requirements for filing their dissertation and the use of manuscripts as part of the dissertation (Dissertation and Thesis Submission | Graduate Division).

Ph.D. students must present their research in a public seminar, in the BPSC 250 series or, if needed, as a special seminar. The dissertation defense generally immediately follows the seminar. **In-person dissertation defense close-door meetings are strongly recommended and every effort should be made to hold them in person.** However, if unusual circumstances exist that prohibit a fully in-person meeting, a hybrid or fully online option should be made available, in agreement with the committee chair and student, and approval by the graduate advisor (who may find it necessary to consult with the Graduate Educational Advisory Committee). If the dissertation defense has been scheduled for in-person, but a committee member has emergency circumstances, then remote accommodation should be made available for that faculty member. The priority should be to hold the defense on the originally scheduled day, unless extenuating circumstances prevent this.

SECTION 3: GUIDELINES AND PROCEDURES FOR THE M.S. PROGRAM IN PLANT BIOLOGY

Note: All forms are found in the Appendix and can be downloaded at Academic Milestones and Forms for Degrees in Plant Biology. There are two options for the MS degree, Plan I (Thesis) and Plan II (Comprehensive Exam). The requirements overlap but are not identical, as outlined below.

SECTION 3A. OVERVIEW OF M.S. PROGRAM MILESTONES

<table>
<tr><th>Quarter</th><th colspan="2">Student Responsibilities</th></tr>
<tr><td rowspan="3">1</td><td colspan="2">Meet with Major Professor or faculty contact</td></tr>
<tr><td colspan="2">Assemble Guidance Committee and select Plan I or II</td></tr>
<tr><td colspan="2">Meet with Guidance Committee, plan course program, submit to GEAC</td></tr>
<tr><td rowspan="2">3-4</td><td colspan="2">Annual Guidance Committee Meeting</td></tr>
<tr><td>Plan I:
Nominate Thesis Committee</td><td>Plan II:
Nominate Comprehensive Exam Committee</td></tr>
<tr><td>5</td><td colspan="2">Research progress evaluation before end of 5th quarter by Guidance Committee.
File Advancement to Candidacy Form</td></tr>
<tr><td rowspan="2">6-7</td><td rowspan="2">Plan I:
Deliver BPSC 250 Seminar
Write Thesis, submit to
Thesis Committee</td><td>Plan II:
Deliver BPSC 250 Seminar
Write Research Report, distribute to
Comprehensive Exam Committee</td></tr>
<tr><td>Pass written exam & oral exams.</td></tr>
</table>

3B. MAJOR PROFESSORS AND LAB ROTATIONS

Most M.S. students enter the Plant Biology program with a Major Professor already selected; therefore rotations are unusual. If a student does not have a Major Professor selected upon entering the program, they may do rotations along with the PhD students. See section 2B.

3C. THE GUIDANCE COMMITTEE AND YOUR COURSE PROGRAM

During the first quarter of the program, students assemble a Guidance Committee. The Chair is the Major Professor or faculty contact. The two other committee members should include at least one more faculty

member from the Plant Biology Graduate Program. The student and committee members must sign the *M.S. Guidance Committee Approval Form*, found in the Appendix or at Academic Milestones and Forms for Degrees in Plant Biology , and the signed form should be submitted to the Student Services Advisor.

The Guidance Committee should meet with the student during the first quarter to establish the course program for the M.S. Plan I (Thesis) or Plan II (Comprehensive Exam) option. If the Guidance Committee feels any waivers should be requested for any pre-requisites or program requirements, the Chair should write a memo and send to the Graduate Advisor who will bring it to the GEAC for approval. If it is a Graduate Division policy, the Graduate Advisor will draft a memo and send it to Graduate Division.

Before the Guidance Committee meeting, the student should consult with the Chair of the Guidance Committee to draft the four forms listed below. The forms can be found in the Appendix or at Academic Milestones and Forms for Degrees in Plant Biology . The forms must be signed and dated by the Guidance Committee and then submitted to the Student Services Advisor for GEAC approval. Students may petition to change the course program or the major/minor areas; these changes must be approved by the Guidance Committee first, and subsequently the GEAC. Changes to Committee membership do not require approval but the Graduate Advisor and the Student Services Advisor must be notified.

FORMS TO COMPLETE DURING THE GUIDANCE COMMITTEE MEETING	BEFORE THE MEETING	DURING THE MEETING
M.S. Curriculum Planning Form	--	Completed by student and committee
M.S. Course Program Form	Prerequisite list filled out by student	Other sections filled out, for either Plan I or Plan II, by student and committee
Other Courses Taken That Apply to Degree Form	Completed by student	–
Courses Required By the Guidance Committee Form	–	Completed by student and committee

SECTION 3D. GENERAL REQUIREMENTS FOR THE M.S. IN PLANT BIOLOGY (PLANS I & II)

1. Overview of Coursework Requirements and Registration Guidelines

Consult your Degree Audit for a detailed list of program requirements.

Courses required or recommended of all M.S. students:

Professional Development: All first-year students are encouraged to enroll in BPSC 200A and BPSC 200B.

BPSC 250: All full-time students in residence in the M.S. Program must enroll in the BPSC 250 Seminar each quarter it is offered. Grades are S/NC except for the quarters in which a student presents a seminar (see below).

BPSC 240: All students must complete at least one quarter of BPSC. Alternative courses could be taken to satisfy this requirement; please consult with the Student Services Advisor or Graduate Advisor for further information.

Useful courses to supplement current course offerings (if a course you require is not offered):

BPSC 290 Directed Studies. BPSC 290 is used for independent studies in a subject that is *not* covered by a standard course, and requires agreement with a faculty member who will act as instructor. Students must submit a 290 petition prior to registering.

BPSC 292: Concurrent and Advanced Studies. Enroll in this concurrently with an undergraduate course to receive graduate credit for the course. You will need to do additional, graduate level work beyond what is required for the undergraduate course. Consent of instructor is required.

Research courses:

BPSC 291: Individual Study in Coordinated Areas. Enroll in this if you need more than 6 units of

research to reach 12 units. Use 297 first, and then fill in with 291.
BPSC 297: Directed Research. Enroll in this first.

Section I: Upper Division Undergraduate Courses: Plans I and II: Three courses (typically 12 units) from those listed on the forms. This requirement may be filled by classes taken at a previous institution, as long as those courses are not being used to fill other program prerequisites. Guidance Committee recommendations for substitutions for one or more Section I classes should be explained in a memo submitted to the GEAC for approval.

Section II: Graduate & Upper Division Undergraduate Courses in Related Departments or Programs and Professional Development Courses: Plans I and II: Six units. Four credits can be from professional development classes (BPSC 200A and 200B). For the remaining credits, a BPSC course that is cross-listed with another department may be used as long as it is not used in Section I or Section III. A course offered by another program can also be used for the remaining credits.

Section III: Plan Graduate Courses in the Department:
Plan I: at least 6 units from courses listed in this section on the form.
Plan II: 11-12 units from courses listed in this section on the form.

Section IV: Plan II only: At least 6-12 units for a literature review (BPSC 290; 1-6 units) or research project (BPSC 297; 1-6 units).

Section V: Plan I only: Not more than 12 units from BPSC 299.

2. Major and Minor Areas of Specialization (Plan II only) Students in Plan II select one major area and one or two minor areas for specialization. The Comprehensive Examination will focus on these areas as well as the student's research area.

3. BPSC 250 Seminar Requirement
All full-time students in residence in the M.S. Program must enroll in the BPSC 250 Seminar each quarter it is offered. Grades are S/NC except for the quarters in which a student presents a seminar (see below).

All M.S. students must present one BPSC 250 seminar. Students must register for a letter grade the quarter they present. M.S. students in Plan I may also present a defense seminar but this is not required for the degree. Students cannot enroll in BPSC 250 while on filing fee and, therefore, the seminar should be completed before going on filing fee.

4. Annual Progress Report
All M.S. students must meet with their Guidance (Plan I and II) or Thesis (Plan I only) Committees at *least once per year* to review progress, including years in which they take their Comprehensive Exam or present their thesis. This meeting is covered in Section 4.

5. Teaching Experience
There is no requirement for M.S. students to acquire teaching experience however TA positions may be available.

SECTION 3E. M.S. REQUIREMENTS – PLAN I (THESIS)
1. Advancement to Candidacy and the Thesis Committee
After completion of their course program, students must apply to the Graduate Division for Advancement to Candidacy by filing the Application for Candidacy for Master's Degree (Plan I) form available at Petitions and Forms | Graduate Division. After advancement, the Thesis Committee will advise the student. Ordinarily, the Guidance Committee will become the Thesis Committee.

The Thesis Committee must have at least three members. The Chair and at least one other member must be from the Plant Biology Program. To avoid conflicts of interest or the appearance of conflicts of interest,

when domestic partners or spouses are on a Thesis Committee, another faculty member must be added to the Committee.

2. Thesis Format
The thesis should follow guidelines and policies established by Graduate Division (https://graduate.ucr.edu/dissertation-and-thesis-submission). It must include an introductory chapter with a comprehensive literature review, and each research chapter should include an introduction with literature review, methods, results, discussion, and conclusions. All sections must be approved by the Thesis Committee.

Students should consult with the Graduate Division website or their Student Services Advisor regarding deadlines for submission of the rough and final drafts of their thesis.

SECTION 3F. M.S. REQUIREMENTS – PLAN II (COMPREHENSIVE EXAM)

1. Formation of the Comprehensive Exam Committee
The Comprehensive Exam Committee consists of three members. The Chair and at least one other member of the Committee must be members of the Plant Biology Graduate Program. The Major Professor cannot be a member of the Committee.

The Committee should be selected three months prior to the exams. To avoid conflicts of interest or the appearance of conflicts of interest, when domestic partners or spouses are on a Comprehensive Exam Committee, another faculty member must be added to the Committee. Students should complete the *Request for Formation of M.S. Comprehensive Examination Committee Form*, located in the Appendix or at Academic Milestones and Forms for Degrees in Plant Biology, *obtain the necessary signatures,* and submit it to the Student Services Advisor for GEAC approval**.** If there is a change in the membership of the Committee, a new *Request for Formation of the M.S. Comprehensive Examination Committee Form* should be completed and submitted with a memo of explanation to the Student Services Advisor, who will submit to the GEAC for approval.

2. Role of the Chair of the Comprehensive Exam Committee
The responsibilities of the Chair are outlined in the *Chair of Exams Procedures* document, which describes their role or responsibilities before, during and after the exams. The student and chair should discuss the timing and expectations for the exam.

3. Setting the Date and Rooms for the Exams
The student should consult with the members of the Committee to select dates for the written and oral examinations, and should reserve rooms for the exams (https://chassintranet.ucr.edu/frs/index.do). The student should inform the Committee members of the date and location.

4. Preparation for the Examination
The student should meet with each Committee member to discuss their likely emphasis in the written and oral exams. In general, students set aside approximately 3 months to study. At least 1 month prior to the written exam, the student must submit their research report to the committee. The report must be approved by the Committee prior to the Written and Oral Exams.

5. The Plan II Research Report
Role of the Major Professor
The research report is a summary of a directed research project *or* a literature review. The report should be developed in consultation with the Major Professor. However, the document must be written by the student alone. Although the Major Professor is expected to read and make comments on the research report, the Major Professor should *not* write any part of the proposal.

Evaluation of the Written Report
The student must revise the report to the satisfaction of the Committee *prior* to the oral examination. It should be noted that this report cannot be used as part of a Ph.D. dissertation in Plant Biology at UCR.

Length, Content and Format of the Written Report
Reports and literature cited should follow the format of a research or review article, respectively, of a journal appropriate to the subject matter. The text (not including the literature cited, tables, or figures) is anticipated to be a minimum length of 15 double-spaced pages for a report from a research project and 20 double-spaced pages for a literature review. The paper should be single-spaced with 1-inch margins and Times Roman 12-point font or Arial 11-point font (or equivalent). A portion of the written and oral exams will focus on the content of the M.S. report.

A report from a research project should include the following:

- 250-word abstract
- Introduction that critically reviews the relevant literature
- Hypotheses tested
- Methods
- Results
- Discussion (may be combined with the results)
- Literature cited

A critical literature review should include:

- 250-word summary
- Introduction to the problem
- Comprehensive literature synthesis and analysis
- Conclusion
- Literature cited

6. Comprehensive Exam Timeline
The written exams usually span one day. The Oral Exam usually occurs one to two weeks after the written exam.

7. The Written Examination
The written examination consists of one 1.5- to 2-hr set of written questions from each Committee member. Each committee member decides if their portion will be open book, open internet, both, or neither. Students may write their answers by hand or using a laptop or tablet if allowed. If drawings, tables or graphs are needed to answer a question, they can be hand drawn and referred to in the text.

The student chooses the order of the written exams. The morning of the exam, the Chair will provide the first set of questions to the student and bring them to the room reserved for the exam. At the end of the first set, the student should bring the answers to the Chair. After a break, the student takes the second exam, and then the third similarly. At the end, the Chair provides the answers to the committee members, who grade them and convey their grades (Pass/Fail) to the Chair. The Chair will let the student know the outcome of the exams and discuss any course of action needed to remedy any weaknesses.

Students "Pass" or "Fail" this exam; there is no "qualified" pass or fail. Students must pass two of three sections to pass. If they do not pass two or more, the Committee will decide which must be retaken. A student may retake the written exam once. The Chair sends a copy of the written exam and the results to the Student Services Advisor, who submits the form *Report of Exam or Degree Requirement to Graduate Division*.

8. The Oral Exam
General Information
The oral examination is taken at a single sitting and typically lasts 2 hours. **In-person oral exams are strongly recommended, and every effort should be made to hold them in person.** However, if unusual circumstances exist that prohibit a fully in-person meeting, a hybrid or fully online option should be made available, in agreement with the committee chair and student, and approval by the graduate advisor (who may find it necessary to consult with the Graduate Educational Advisory Committee). If the exam and/or dissertation defense has been scheduled for in-person, but a committee member has emergency

circumstances, then remote accommodation should be made available for that faculty member. The priority should be to hold the exam and/or defense on the originally scheduled day, unless extenuating circumstances prevent this.

Oral Presentation
During the first 10 minutes of the oral exam, the student should present an overview of their research proposal, as well as a short introduction to their academic training and long-term career goals. This can be as a chalk talk or using slides. If slides are used, they must be in pdf format, not powerpoint (no presenter notes allowed). The remainder of the exam will be Q&A.

Structure of the Oral Exam
The typical sequence of events for the oral examination is:

- The student indicates their preferred order of examiners. The Chair of the Committee must ask their questions last.
- The student leaves the room while the Committee discusses the written exam and the student's background.
- The student returns and gives a short (10 minutes) presentation on their research. The presentation usually starts with a summary of the student's educational background and career goals.
- Each committee member is given ~20 minutes to ask the student questions. There is usually a 5 to 10-minute break after the second or third committee member's questions.
- If time permits, there may be a second round of questions.
- The student then leaves the room while the committee deliberates.
- When the committee has reached a decision, the student is asked back into the room and the Chair will inform them of the decision.

9. Outcome of the Oral Exam
The outcome of the exam is pass or fail. The student must be given two pass votes to pass the oral exam. If a student fails the oral exam, the Committee will convey the reasons for the failure to the student and major professor. Per Graduate Division rules, the second oral examination can be taken no sooner than four weeks after the first. The student must pass the second oral exam to receive the MS.

After the exam, the student should discuss their performance with each committee member to identify strengths and weaknesses, as well as strategies to address the weaknesses. The Chair should send a memo to the Student Services Advisor and the Graduate Advisor reporting the outcome of the exam for it to be added to the student's file. The Chair or student should initiate a report of the results for Graduate Division using the form https://graduate.ucr.edu/petitions-and-forms#Master's-Advancement.

10. Academic Appeal of an Exam Decision
There are only two valid grounds for an appeal: (1) a procedural error and/or (2) use of non-academic criteria to evaluate academic work. The non-academic criteria could include personal bias and violations of the campus nondiscrimination policy.

If any member of the committee or the graduate student (the appellant) believes that unfair or improper procedures were followed, the appellant should first seek an informal resolution by contacting the Plant Biology Graduate Advisor for Continuing Students or the Vice Chair of the Department of Botany and Plant Sciences. This process must be initiated within two weeks of the academic decision. A written document outlining the grounds for the appeal and any supporting documentation should be provided. The Graduate Advisor or Vice Chair will seek an appropriate resolution.

If an informal resolution is not reached, the Graduate Advisor or Vice Chair will bring the appeal to the Graduate Educational Advisory Committee (EAC) for consideration. The GEAC will determine whether the appeal has valid grounds, referring to the two possible criteria stated above. If the GEAC determines that there are valid grounds for an appeal, then the student will be so informed. The GEAC will then conduct a hearing by consulting with the student and, separately, with one or more committee members regarding the issues raised in the appeal. After due deliberation, the GEAC will make a final decision. There are two

possible outcomes. The GEAC will decide either that: (1) the appeal was upheld or (2) the appeal was not upheld. If the GEAC determines the appeal was upheld by the hearing process, then the exam under contention shall be declared null and void. However, it should be noted that the pass/fail decision cannot be overturned (i.e. a "fail" shall not be overturned to a "pass", nor a "pass" overturned to a "fail"). The GEAC will set an appropriate timeline for a replacement qualifying exam and make recommendations regarding committee composition.

The GEAC will report the results of the appeal in the form of a memo. The GEAC will make every effort to consider the appeal and render a recommendation promptly. Whenever possible, the appellant will be informed of the outcome of the appeal within two weeks. The Graduate Division will be informed promptly of the results of the examinations. The appellant has the right to appeal academic decisions made at the program level to the Graduate Dean (Regulations and Procedures | Graduate Division).

If any member of the GEAC has a conflict of interest in the appeal decision, they will be recused from the appeals process. The four GEAC faculty members must be present during the consultations and deliberations involved with an appeal. If it is necessary for more than two GEAC members to be recused for the appeals process, then the non-recused GEAC members will appoint additional Plant Biology faculty to the appeals committee to assure a prompt and judicious consideration of the appeal. Student GEAC members do not participate in the appeal process.

SECTION 4: ANNUAL RESEARCH PROGRESS EVALUATION

SECTION 4A. GENERAL INFORMATION

Two distinct forms are required for the annual committee meeting: (1) the Student Annual Progress Report (SAPR) (https://app.wufoo.com/entry-manager/376), filled out in advance by the student, and (2) the Committee Annual Research Progress Evaluation (CARPE) https://app.wufoo.com/entry-manager/375), filled out by the committee at the end of the annual meeting.

SECTION 4B. ANNUAL MEETING WITH GUIDANCE, DISSERTATION, OR THESIS COMMITTEE

1. Meeting Frequency and Time

Students *must meet* at least once per year with their Guidance, Thesis, or Dissertation Committee. This includes years in which the student takes the Comprehensive Exam or presents their Thesis or Dissertation. These Committees can meet more frequently if needed. Meetings are expected to take place during the spring quarter. An extension can be requested from the Graduate Advisor if necessary.

2. Student Responsibilities for the Annual Meeting

- Students should contact members of their committee at least three to four weeks in advance and arrange a meeting time.
- Students should reserve a conference room.
- One week before the annual meeting, students should fill out and send committee members the *Student Annual Progress Report* (https://app.wufoo.com/entry-manager/376), including the previous year's report, and the current year's research update..
- Students should prepare a presentation (typically 30 min) summarizing their coursework and research progress to date, work remaining, and plans for completion.

Any reasons for slow progress or impediments to completion, as well as any potential changes in the student's research project, goals, approaches, etc. should be discussed in this meeting.

3. Major Professor and Committee Member Responsibilities

During the meeting, the committee will fill out the online *Committee Annual Research Progress Evaluation* (CARPE, https://app.wufoo.com/entry-manager/375). The Chair will send an email to the Graduate Advisor and Student Services Advisor, copying all committee members, indicating that all committee members endorse the CARPE.

SECTION 4C. STANDARDS FOR MAKING ACCEPTABLE PROGRESS TOWARDS DEGREE

By Graduate Council definition, students are expected to finish their Ph.D. in a total of five years. This is considered normative time. For most M.S. students, completion is expected in two years.

Financial support for students beyond normative time plus one year (six years for Ph.D., three years for M.S.) is not guaranteed. Ph.D. students beyond their 6th year can apply for TA-ships, however they may have lower priority for TA-ship assignments

SECTION 5. GRADUATE STUDENT SUPPORT

In the first year, most Ph.D. students are supported by a combination of funds from Graduate Division, the College of Natural and Agricultural Sciences, the Plant Biology Program, and their major professor. The timing of distribution of funds depends on the source of the funds (GSR, TA, fellowship) therefore it is important to consult the Student Services Advisor for information to understand when your funds will disbursed. This will allow you to plan for any gaps when the time of disbursement switches from the start of the quarter to the end of a month

In the spring of the first year, most Ph.D. students transition to funding from their major professor. If a major professor is unable to support a graduate student due to a break in grant support, the major professor and student should contact the Vice-Chair of Botany and Plant Sciences to find a TA-ship or request Plant Biology Program funding.

To receive financial support from any source, students must maintain a cumulative grade point average (GPA) ≥ 3.0 in courses in the major.

SECTION 5A. TAX INFORMATION FOR GRADUATE STUDENTS

Income from TA, GSR, and fellowship support is all taxable. Taxes are withheld from TAships and GSRs. Taxes are not withheld from fellowships and scholarships, and students must plan accordingly.

SECTION 5B. SOURCES OF GRADUATE STUDENT SUPPORT AND DEFINITIONS

1. Graduate Student Researcher (GSR)

The GSR is an employment title for graduate students conducting research. Students on GSR support will receive a contract, which must be signed and returned to the CNAS GSAC Employment Specialist. Graduate Student Researchers have union representation, and the contract that specifies the terms of employment can be found here. Students will be hired at the following percent of time. https://graduate.ucr.edu/graduate-student-employment#ase-and-gsr-salary.

Year in Program	GSR Level
1st - 3rd Quarter of GSR	GSR, Step I 50%
4th - 6th GSR employment	GSR, Step II 50%
7th+ Quarters of GSR employment	GSR, Step III 50%
Past Normative Time	No guarantee of department support

2. Non-Resident Tuition Remission (NRT)

Domestic non-resident students must establish California residency during their first year of enrollment. Non-resident students are required to pay an additional fee (non-resident tuition, NRT), however, during the first two years, the fee is remitted for all students.

International students are not able to establish California residency. After a non-resident student advances to candidacy, the NRT fee is waived for three years. If a non-resident student does not advance to candidacy before their 7th quarter, or is enrolled past normative time, the non-resident tuition fee will be charged to them.

SECTION 6. BEING A TEACHING ASSISTANT

SECTION 6A. TA APPOINTMENTS AND TIME COMMITMENTS

Teaching Assistants at UCR are represented by the United Auto Workers Union (UAW) and all students appointed as TAs should receive a copy of the contract from the Union.

For a full 50% appointment, TAs are expected to work 20 hours a week on average. The assigned workload may never exceed more than 40 hours per week and 220 hours per quarter. Some TAs are appointed at

25%-time and are expected to work 10 hours per week. Plant Biology PhD students are required to complete a 50%-time TA appointment as a requirement for graduation. Those who are appointed at 25% time must serve a second 25% time appointment to meet the requirement.

SECTION 6B. ELIGIBILITY
For up-to-date information regarding TA duties, qualifications, and appointments, check the graduate division's webpage Academic Student Employee (ASE) | Graduate Division. TAonline provides information about the qualifications needed at: http://taonline.ucr.edu.

SECTION 6C. TEACHING ASSISTANT DEVELOPMENT PROGRAM (TADP)
Graduate students must complete the online Teaching Assistant (TA) Orientation before or during their first quarter as a TA. TA Orientation is offered asynchronously, and students can register at Orientation | Teaching Assistant Development Program.

Per Graduate Division regulations, if a TA's student evaluation scores fall to 4.0 or below, they are required to complete additional training to continue serving as a TA. Plant Biology students who score low on their evaluations must prepare an Action Plan for improvement, in consultation with the Graduate Advisor and Vice Chair for Teaching.

TADP provides services for more experienced TAs as well, including a teaching resource library, teaching portfolio development and assessment consultations, and seminars on professional development as well as a University Teaching Certificate. Visit Teaching Assistant Development Program. TADP also provides opportunities for students to improve English communication skills at Language Support | Teaching Assistant Development Program.

SECTION 6D. LANGUAGE PROFICIENCY
International students must consult with the Graduate Student Employment Specialist to demonstrate proficiency in the English language. The Student Services Advisor can provide assistance with making contact with the Graduate Student Employment Specialist.

SECTION 7: SCHOLARSHIPS, AWARDS, AND MINIGRANTS

SECTION 7A. BPSC ANNUAL AWARDS FOR GRADUATE STUDENTS
1. UCR Outstanding Teaching Assistant Outstanding Teaching Assistant Awards
2. The W. W. Thomson Award for Outstanding Research
3. Graduate Student Achievement Award
4. Annual Inclusivity Award
5. Annual Student Poster Awards

SECTION 7B. TRAVEL AWARDS
Funding Sources | Department of Botany & Plant Sciences
1. BPSC GSA (bGSA)
2. Department of Botany and Plant Sciences Travel Award
3. UCR's Graduate Student Association

SECTION 7C. COLLEGE AND CAMPUS AWARDS
1. CNAS scholarships and awards CNAS Graduate Student Scholarship Awards
2. Graduate Division fellowships and awards Fellowships, Awards, and Grants | Graduate Division

SECTION 8: CAMPUS POLICIES
Information on campus policies regarding facilities, communications, budgeting, computing, environmental health and safety, personnel administration, purchasing, and more can be found at UCR Policies and Procedures
Additional important policies and resources:
Student conduct and Academic Integrity Conduct Policies | SCAIP | University of California, Riverside

Reporting harassment or other abuse Resources | Students | SCAIP | University of California, Riverside

SECTION 9: APPENDICES

COURSE OFFERINGS

Undergraduate Level Classes - 2024-2025

Fall 2024 (even)
BPSC 011 Plants and Human Affairs (4) Jenerette
BPSC/BIOL 104 Foundations of Plant Biology (lab) (4) Santiago
BPSC 109 Epigenetics (4) Nagel
BPSC/BIOL 143 Plant Physiology (lab) (4) Giraldo

Winter 2025 (odd)
BPSC 021 California's Cornucopia: From Fields to Table (5) (TBA) (Arpaia, Merhaut, Focht)
BPSC/BIOL 104 Foundations of Plant Biology (lab) (4) Giraldo
BPSC/BIOL 132 Plant Anatomy (lab) (4) TBA
BPSC 135 Plant Cell Biology (4) Reddy
BPSC 148 Quantitative Genetics (4) Jia
BPSC 165 Restoration Ecology (field) (4) Larios
BPSC/BCH 183 Plant Biochemistry and Pharmacology (4) Eulgem
GNBT 010 Genetics & Society (4) Nelson
GNBT 130 Genomes (4) TBA (class is only tentatively scheduled)

Spring 2025 (odd)
BPSC 011 Plants and Human Affairs (4) Seymour
BPSC 021 California's Cornucopia: From Field to Table (5) Walling
BPSC 031 Spring Wildflowers (lab) (4) Ezcurra
BPSC/BIOL 104 Foundations of Plant Biology (lab) (4) TBA
BPSC 133 Taxonomy of Flowering Plants (lab) (5) Litt
BPSC 150 Genes, Selection, and Populations (4) Lukaszewski
BPSC/BIOL 155 Chromosomes (4) Lukaszewski
*BPSC 166 Environmental Physiology (lab) (4) Santiago
BPSC 193 Senior Seminar in Plant Biology (2) TBA
GNBT 110 Advanced Genetics (4) TBA
GNBT 114 Molecular Genetics Lab (4) TBA (class is only tentatively scheduled)

* Class is offered on alternate years.

Graduate Level Classes - 2024-2025

Fall 2024 (even)
BPSC 200A Plant Biology Core (2) Cutler, Jozwiak (?)
BPSC 225J Ezcurra (2 units) Ezcurra
*BPSC 234 Statistical Genomics (4) Jia
BPSC 235 Plant Cell & Dev. Biol (4) Gonehal
BPSC 250 Seminar (1) (TBA)

* Class is offered on alternate years.

Winter 2025 (odd)
*BPSC 201 Applied Ecological Modeling Lab (1) Jenerette (course is taught togetehr with BPSC 225J - see below)
*BPSC 225J Applied Ecological Modeling (2) Jenerette
**BPSC 201/Metabolimics Lab (1) Jozwiak (course is taught togetehr with BPSC 225N - see below)
**BPSC 225N Metabolimics (2) Jozwiak
BPSC 231 The Plant Genome (4) Bailey Serres/Koenig/Nagel
BPSC 250 Seminar (1) TBA

* Class is offered on alternate years.

** Class is offered only once

Spring 2025 (odd)
BPSC 200B Plant Biology Core (2) TBA
BPSC 200C Plant Biology Core/GAANN (2) TBA
BPSC 208 Product design and entrepreneurship for agricultural and biological applications (3) Bailey-Serres, TBA
*BPSC 247 Ecological Theory and Modeling (4) Li
BPSC 240 Spec. Topics (2) Kencharmane Raju (Comarativep genomics/Single cell sequencing)
BPSC 240 Spec. Topics (2) Catano (Plant Ecology)
*BPSC 243 Plant Physiological Ecology (disc) (4) Santiago
BPSC 250 Seminar (1) TBA

* Class is offered on alternate years.

2025/2026 Schedule is tentative

Undergraduate Level Classes - 2025-2026

Fall 2025 (odd)
BPSC 011 Plants and human affairs (4) TBA
BPSC 109 Epigenetics (4) Nagel
BPSC/BIOL 104 Foundations of Plant Biology (lab) (4) Litt
BPSC/BIOL 143 Plant Physiology (lab) (4) Girlado
GNBT 100 Biotechnology (4) TBA

Winter 2026 (even)
BPSC 011 Plants and Human Affairs (4) Rasmussen
BPSC 021 California's Cornucopia: From Field to Table (5) TBA
BPSC/BIOL 104 Foundations of Plant Biology (lab) (4) TBA
BPSC/BIOL 132 Plant Anatomy (lab) (4) TBA
BPSC 135 Plant Cell Biology (4) (Reddy)
BPSC 148 Quantitative Genetics (4) Xu
BPSC 149 Nanobiotechnology (2) Giraldo (taught in parallel with BPSC 225P)
BPSC 165 Restoration Ecology (field) (4) Larios
BPSC/BCH 183 Plant Biochemistry and Pharmacology (4) Eulgem
GNBT 010 Genetics & Society (4) Nelson
GNBT 120 Analysis of Genomes (4) TBA
GNBT 130 Genomes (4) TBA

Spring 2026 (even)
BPSC 011 Plants and Human Affairs (4) Jenerette
BPSC 021 California's Cornucopia: From Field to Table (5) Walling
BPSC 031 Spring Wildflowers (lab) (4) TBA
BPSC/BIOL 104 Foundations of Plant Biology (lab) (4) Santiago
BPSC 133 Taxonomy of Flowering Plants (lab) (5) Litt
BPSC 146 Plant Ecology (lab/field) (4) TBA
BPSC 150 Genes, Selection, and Populations (4) Seymour (taught in papralel with BPSC 221)
BPSC 193 Senior Seminar in Plant Biology (2) TBA
GNBT 110 Advanced Genetics (4) TBA
GNBT 114 Molecular Genetics Lab (4) TBA

2025/2026 Schedule is tentative

Graduate Level Classes - 2025-2026

Fall 2025 (odd)
BPSC 200A Plant Biology Core (2) Cutler, Jozwiak (?)
BPSC 235 Plant Cell & Dev. Biol (4) Gonehal/Rasmussen
*BPSC 245 Advanced Plant Ecology (4) Li
BPSC 250 Seminar (1) TBA

* Class is offered on alternate years.

Winter 2026 (even)
BPSC 225P Nanobiotechnology (2) Giraldo (taught in parallel with BPSC149)
BPSC 231 The Plant Genome (4) Bailey-Serres, TBA
*BPSC 246 Landscape Ecology (4) Jenerette
BPSC 250 Seminar (1) TBA

* Class is offered on alternate years.

Spring 2026 (even)
BPSC 200B Plant Biology Core (2) TBA
BPSC 208 Product design and entrepreneurship for agricultural and biological applications(3) Bailey-Serres, TBA
*BPSC 221 Advanced Plant Breeding (4) (Seymour) (taught in papralel with BPSC 150)
BPSC 250 Seminar (1) TBA

* Class is offered on alternate years.

[Link to PhD Guidance Committee and Curriculum Planning Form]

REQUEST FOR FORMATION OF THE PH.D. QUALIFYING EXAMINATION COMMITTEE[2]

Instructions: Return the *signed* form to The Plant Biology Student Services Advisor in the CNAS Grad. Student Affairs Office (1140 Batchelor Hall).

Student's Name_____ **Date:** _____

Major Area_____
Minor Area 1_____
Minor Area 2_____

Chair of the Qualifying Exam Committee (from the Plant Biology Program):

Faculty Member Name	Examination Area	Signature
_____	_____	_____

Additional Members (at least two from the Plant Biology Program):

Faculty Member Name	Examination Area	Signature
_____	_____	_____
_____	_____	_____
_____	_____	_____

Committee Member from Outside of the Plant Biology Program:

Faculty Member Name	Examination Area (Optional)	Signature
_____	_____	_____

Two Alternate Faculty Members:

Faculty Member Name	Examination Area	Signature
_____	_____	_____
_____	_____	_____

Student Signature _____

Major Professor Signature _____

[2] Minor adjustments to form 9/2014 and 9/2017.

M.S. GUIDANCE COMMITTEE APPROVAL FORM

It is recommended that the Guidance Committee meet to establish a student's course program during the Fall quarter so opportunities for alternate year classes are captured.
This form is to be completed no later than the end of the eighth week of the second quarter.

Note: To avoid conflicts of interest or the appearance of conflicts of interest, when domestic partners or spouses are a majority of the faculty on a Thesis or Comprehensive Exam Committee, another faculty member must be added to the Committee.

(Please type or print)

Name _____ Date _____

I would like to request the following members be appointed to my Guidance Committee. They have all agreed to serve on this committee.

_____, _____Major Professor
Print name Signature

_____, _____
Print name Signature

_____, _____
Print name Signature

Approved: _____
Graduate Advisor Signature

M.S. CURRICULUM PLANNING FORM

_____ _____

Name of Student Date

Guidance Committee:

_____ Chair

_____ Member

_____ Member

1. If the student has not met the Department course requirements, please provide an explanation of any deficiencies, and an indication of how the student will make up the coursework. If the Guidance Committee feels courses taken at other Universities meet the requirement, please provide a brief summary of the topics covered in the courses.

2. A short statement of the educational and career goals of the student:

M.S. PROGRAM – COURSE PROGRAM FORM

Name of Student _____ Date Entered Program _____

Plan I (Thesis) ☐ Plan II (Comp. Exam) ☐

This is to certify that the above-named student has completed all departmental entrance requirements in the following specified manner:

UCR REQUIREMENTS	UNITS	EQUIVALENT CLASS	YEAR	INSTITUTION
BCH 100 (Elem. Biochemistry) or	5			
BCH 110A, BPSC 138, BIOL 116, BPSC 146	4			
BIOL 5A (General)	4			
5B (General)	4			
5C (General)	4			
BIOL 102 (Genetics)	4			
CHEM 1A (General)	4			
1B (General)	4			
1C (General)	4			
MATH 9A (Calculus)	4			
STAT 100A or STAT 110	4			
BPSC 104	4			
One core Plant Biology course: BIOL 107A, BPSC 132, BPSC 135, BPSC 138, BPSC 143, BPSC 146	3-5			

For Plan I: PROPOSED THESIS TITLE: _____

For Plan II:
MAJOR AREA _____
MINOR AREA 1 _____
MINOR AREA 2 _____(optional)
WRITTEN EXAM DATE _____
ORAL EXAM DATE _____

For Plan I and II:

BPSC 250 SEMINAR PRESENTATION: _____ (Quarter/Year)

BPSC 240: _____ (Quarter/Year)

Section I - Three courses from the following list are required. Students who have taken courses comparable to these during their baccalaureate training may have a portion or all of this section waived.

BPSC 104	BPSC 112	BIOL/MCBL/PLPA 120
BPSC 132	BPSC 133	BPSC 134
BIOL/PLPA 134	BPSC 135	BPSC 138
BPSC 143	BPSC 146	BPSC 148
BPSC 150	BPSC 153	BPSC 155
BPSC 158	BPSC 165	BPSC 166
BPSC 170	BPSC183	

Course	Grade	Units	Qtr/Year

Section II – Graduate and upper-division undergraduate courses in related departments or programs and professional development courses (ie., BPSC 200A-B). Applicable courses are approved by the Graduate Educational Advisory Committee. A minimum of 6 units of course work is required. No more than 4 units may be from professional development classes. Only one course cross-listed with other departments may be used. Students cannot use a cross-listed course already used in Section I above or used in Section III below:

Course	Grade	Units	Qtr/Year

Section III - Thesis Plan - At least 6 units from the following list.

- Comprehensive Exam Plan - At least 12 units from the following list.

BPSC 201E-Z (2 unit max)	BPSC 205	BPSC 221
BPSC 222	BPSC 225 E-Z	BPSC 230
BPSC 231	BPSC 232	BPSC 234
BPSC 237	BPSC 239	BPSC 243
BPSC 245	BPSC 246	BPSC 247

BPSC 240 **(only if taken in addition to required seminar units)**

Course	Grade	Units	Qtr/Year

Section IV: **Plan II Only (Comprehensive Exam Plan)** – A total of 6 to 12 units from BPSC 290 (literature review; 1- 6 units) or BPSC 297 (research project; 1- 6units). The outcomes of this research should be described in the Comprehensive Exam Report that is submitted for evaluation by the Comprehensive Examination Committee.

Plan II: Date Research Project Submitted (mm/dd/yy): _____

Course	Grade	Units	Qtr
BPSC			
BPSC			
BPSC			

Section V. Thesis Plan Only -. A total of 6 to 12 units of BPSC 299, 297 or 290 may apply toward the degree. If BPSC 297 and BPSC 290 are used, no more than 6 units total may be derived from these classes.

Course	Grade	Units	Qtr
BPSC 299			
BPSC			
BPSC			

Additional Units – please list any additional units needed to meet the 36-unit requirement for the degree. BPSC 291 does not apply.

Course	Grade	Units	Qtr

COURSES REQUIRED BY THE GUIDANCE COMMITTEE FORM

_____

Name of Student

Note*:* Graduate students should be enrolled in 12 units of graduate-level classes each quarter.

Fall Quarter _____			**Winter Quarter** _____			**Spring Quarter** _____		
COURSE #	**COURSE TITLE**	**UNITS**	**COURSE #**	**COURSE TITLE**	**UNITS**	**COURSE #**	**COURSE TITLE**	**UNITS**
BPSC 250	**Seminar**	**1**	**BPSC 250**	**Seminar**	**1**	**BPSC 250**	**Seminar**	**1**
Fall Quarter _____			**Winter Quarter** _____			**Spring Quarter** _____		
COURSE #	**COURSE TITLE**	**UNITS**	**COURSE #**	**COURSE TITLE**	**UNITS**	**COURSE #**	**COURSE TITLE**	**UNITS**
BPSC 250	**Seminar**	**1**	**BPSC 250**	**Seminar**	**1**	**BPSC 250**	**Seminar**	**1**

_____ _____ _____

Major Professor (date) Guidance Committee Member (date) Guidance Committee Member (date)

OTHER COURSES TAKEN THAT APPLY TO DEGREE

Instructions: List all other classes that you have taken at your former institution(s) that contribute to your knowledge in Plant Biology.

COURSE	Units	Grade	Date	Institution

Coursework verified by Guidance Committee:

_____

Signature of Guidance Committee Chair

REQUEST FOR FORMATION OF M.S. COMPREHENSIVE EXAMINATION COMMITTEE

The Major Professor, working in consultation with the student, suggests the composition of the M.S. Comprehensive Examination Committee, which is then approved by the Educational Advisory Committee. The purpose of this form is to assist the student and his/her Major Professor in requesting formation of the Comprehensive Examination Committee.

The Comprehensive Examination Committee consists of three members. The Chair and one other member of the Committee must be from the Plant Biology Graduate Program. The Major Professor should not be a member of the Comprehensive Examination Committee.

The purpose of the comprehensive examination is to evaluate the student's understanding of botany and plant sciences, with an emphasis on one major area and one or two minor areas that are not sub-disciplines of the major area. Minor areas can be selected from either column below, and need not match the degree program. Alternative areas (within Botany and Plant Science or in other disciplines) will be approved if adequate justification is provided in a memo. For example, a student in the Botany program could choose Plant Physiology as the major area and Plant Ecology and Crop Physiology as two minor areas, but Plant Biochemistry would not be an acceptable minor area because it is listed as a sub-discipline of the major area. The student will be expected to have an advanced (graduate level) understanding of the major and minor areas, but not necessarily of every sub-discipline of the major area.

Major Area	**Sub-disciplines**
Plant Physiology	Whole Plant Physiology, Physiological Ecology, Plant Biochemistry
Ecology and Conservation Biology	Conservation Biology, Plant Ecology
Plant Cell Biology and Development	Plant Cell Biology, Plant Development
Plant Genetics	Cytogenetics, Population Genetics, Quantitative Genetics, Genomics
Plant Molecular Biology	Plant Molecular Biology
Systematics and Evolution	Ethnobotany, Systematics, Evolution
Anatomy and Morphology	Anatomy, Morphology
Applied Plant Genetics	Biotechnology, Conservation Genetics, Plant Breeding
Plant Physiology	Whole Plant Physiology, Plant/Soil/Water Interaction, Crop Physiology, Crop Production, Postharvest Physiology
Applied Ecology	Conservation Biology, Restoration Ecology, Conservation Genetics, Invasion Biology
Pest Management	Weed Science, Plant Pathology, Entomology, Nematology

To request formation of the Comprehensive Examination Committee, indicate the student's program and enter the major and minor areas. List the suggested faculty members and at least two alternates, and specify the area in which each committee member will examine the student. Before submitting the form, the student should contact each prospective committee member and determine that they are willing to examine the student in the specified area.

Both the student and the major professor should sign the completed form, which should then be given to the Student Services Advisor for consideration by the Educational Advisory Committee. After the GEAC approves the committee, the student will complete Form 2 on R'Grad

M.S. COMPREHENSIVE EXAMINATION COMMITTEE REQUEST FORM

Student Name (Print): _____

Major Area _____

Minor Area _____

Second Minor Area (optional) _____

Committee Composition:

EXAMINATION AREA	SUGGESTED FACULTY MEMBER	ROLE
		Chair
		Member
		Member
		Alternate
		Alternate

_____

Graduate Student Signature Date

_____

Major Professor Signature Date