

## Welcome to The School of Plant Sciences!

For hundreds of years, scientists have chosen plants and their associated microbes to answer basic questions about the world around us. Botanists and microbiologists shaped our fundamental understanding of genetics, cell structure, and evolution, and modern plant science continues to contribute to basic biological research. The study of plants and their pathogens has also emerged as central for solving current world problems such as food security, energy needs, and climate change.

The School of Plant Sciences has a long-standing tradition of excellence in plant science research. The large faculty has diverse research interests ranging from horticulture to genomics and microbiology to evolution. As part of the BIO5 Institute, our faculty are closely associated with colleagues in the Colleges of Science, Engineering, Pharmacy, and Medicine.

This diversity is translated into our graduate curriculum, where students gain a broad understanding of all aspects of plant science while retaining the ability to specialize. Students also benefit from regular opportunities to meet scientists from across the country and around the world. An emphasis on critical thinking and written and oral communication prepares students for a wide variety of 21<sup>st</sup> century careers in academia and beyond, including positions as university faculty, research scientists, plant breeders, consultants, science writers, teachers, or science lawyer/patent officers, among many others.

Students within our School enjoy excellent research facilities, including modern greenhouses and controlled environment rooms, extensive field sites, advanced microscopes, and high-throughput sequencing facilities. The faculty of the School of Plant Sciences benefit from strong extramural grant support notably including the iPlant Collaborative, the largest NSF grant ever awarded for biological research. Finally, students and faculty both enjoy the friendly community of Tucson and the stunning surroundings of the Sonoran Desert.

The School of Plant Sciences offers M.S. and Ph.D. degrees in two majors: **Plant Sciences** and **Plant Pathology**. Students in each major are part of the same academic unit -- the School of Plant Sciences. Although the programs differ in their specifics (reflecting the different disciplines in each), they are similar in their expectations and structure. We encourage a sense of community and fellowship among all graduate students in our School through shared seminars, a graduate student club, and open doors among labs, classes, faculty, and disciplines.

In the pages that follow we outline some of our graduate program information. Please consult our School website for more information.

*On behalf of our students, staff, and faculty, welcome!*

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## 1. Program requirements

Graduate requirements for majors in Plant Sciences and Plant Pathology are similar, differing only in specific coursework. In addition to the requirements of each program, graduate students must comply with all Graduate College policies as stated in the UA General Catalog at the time the student enters the program.

The primary requirements for completion of a graduate degree are coursework, research program, and production of a formal thesis or dissertation. For a non-thesis Master's Degree, a report must be written and presented to the student's Advisory Committee for approval. Graduate students should prepare an Annual Graduate Student Progress Report (APR) and have their Major Advisor complete the Annual Summary by Major Advisor to ensure sufficient progress is made each year. In addition, Ph.D. students must pass written and oral Comprehensive Exams.

### A. Provisional advisory committee (PAC), student mentors, and formation of the advisory committee

All aspects of a student's degree are overseen and approved initially by a Provisional Advisory Committee (PAC) and, once a Major Advisor is selected, by the student's Major Advisor and an Advisory Committee.

The PAC will consist of a Major Advisor and two other faculty members selected by the major advisor. The PAC will serve as temporary advisors during the first semester for MS students and the first two semesters for Ph.D. students. Each student must meet with his or her PAC on arrival: preferably before classes begin, but at the latest before the conclusion of the first two weeks of their first semester in the program.

The first meeting between the student and PAC should focus on evaluating the student's background, assisting him/her in selecting courses, and, if appropriate, helping him/her outline potential rotation projects/mentors. The format of the PAC meeting is flexible, but generally includes evaluation of the student's retention and synthesis of knowledge from previous coursework. Importantly, this is not an "exam" in the sense that a student will pass or fail, but rather a formal process to ensure that students receive guidance at the beginning of their graduate career.

In addition to evaluating the student's command of the subject matter in his/her field of study, the PAC may administer an assessment of writing to help the student gain competence in scientific and professional expression. For example, the student may be asked to write a mini-review of a selected research article or articles (2 to 4 pages). This should be entirely the student's own effort and will be used by the PAC to evaluate whether the student needs to receive supplemental instruction on writing skills.

Finally, the PAC should advise the student on course selection including the options on minor fields of study, and should help orient the student to graduate education at the University of Arizona. Throughout, the student will have an opportunity to ask questions and seek constructive feedback from faculty who are invested in helping him/her commence graduate school with a sense of support, focus, and goal-oriented achievement.

In addition, each student will be assigned a Graduate Student Mentor upon entering the program. The Student Mentor will assist with any other questions about the campus, the School of Plant Sciences (SPLS), and/or the graduate major.

Upon establishing a formal mentorship relationship with a Major Advisor, Master's and Ph.D. students will form their committees with input from their Major Advisor, including (as necessary) representation by members from both their major and minor fields of study.

Working with the student and the student's Advisory Committee(s), the Graduate Student Program Committee (GSPC) provides oversight for both graduate degree programs in the School of Plant Sciences. The GSPC is made up of a group of faculty appointed by the SPLS Director to develop policy governing the Program. This Committee is responsible for making recommendations for student admissions and for candidates for assistantships to the SPLS Director. It also oversees student progress, monitors results of the Comprehensive Exams, moderates any conflicts between advisors and students, and administers general University and SPLS policies regarding graduate student activities. The chair of GSPC is responsible for the administration of the graduate program and serves as the Director of Graduate Studies.

## **B. Coursework and related requirements**

The minimum number of units required for a Master's degree is 30 graduate units (36 for the non-thesis option). For a thesis Master's degree, 8 Thesis units (PLS 910) may count toward the degree. Eight Master's Report units (PLS 909) may count toward the non-thesis degree.

For a Ph.D. degree a minimum of 36 units of course work in the area of the major subject, 9 units in the minor subject, and 18 units of dissertation must be completed. More information regarding GPA requirements, transfer credit, and minimum enrollment levels can be found at the Graduate College website.

Please speak with Georgina to clarify that you have fulfilled your requirements. It's a good idea to talk with her at the end/start of each semester to ensure that you are on track. She also can advise you with regard to potential transfer opportunities for MS credits.

Students have four components to their graduate requirements: the School of Plant Sciences Seminar; journal club; presentation of their own research; and core courses. These are outlined below.

1. Students are expected to attend all seminars in the Interdisciplinary Plant Sciences seminar series, and are required to enroll in the seminar for course credit by signing up for PLS 596A for at least two semesters (MS students) and five semesters (Ph.D. students).
2. Students are required to present their work during their graduate program. In addition to the final defense seminar, MS students who are completing a thesis must present at least one seminar, and Ph.D. students must present at least two seminars. However, non-thesis MS students are not required to present seminars. For MS students completing a thesis, and Ph.D. students, the responsibility of the student and his/her advisory committee to schedule their seminar presentations in conjunction with the Seminar Committee.
3. Because evaluation of the literature is a critical component of graduate training, all students are required to enroll in a journal- or literature-based course (i.e., a journal club) for either two semesters (MS students) or four semesters (Ph.D. students). We strongly encourage all students to enroll in the School of Plant Sciences Journal Club course, to be held each spring term. Other journal clubs from within or beyond the School also can count toward the required total; please contact the DGS prior to enrolling to confirm that the course is acceptable.
4. Finally, students must complete the core courses outlined below (in addition to elective courses selected by the student with approval from his/her Major Advisor and Advisory committee). Overall, the balance of a student's coursework will be shaped by the student's particular areas of emphasis in consultation with the Major Advisor and Advisory Committee.

***Plant Sciences Core Courses (for Master's and Ph.D. students):***

- PLS 540 Mechanisms of Plant Development
- PLS 548A Plant Biochemistry and Metabolic Engineering

*Ph.D. students in Plant Sciences also must take*

- MCB 546 Advanced Genetics or approved equivalent
- One core elective of  $\geq 3$  units from the list shown here, pending approval by Major Advisor:  
<http://cals.arizona.edu/spls/graduate/list>

***Plant Pathology Core Courses (for Master's and Ph.D. students):***

- PLP 550 Principles of Plant Microbiology
- PLP 551 Biology and Characterization of Plant Pathogenic Agents

*Ph.D. students in Plant Pathology must also take:*

- PLP 528 Microbial Genetics or approved equivalent
- One core elective of  $\geq 3$  units from the list shown here, pending approval by Major Advisor:  
<http://cals.arizona.edu/spls/graduate/list>

Waivers regarding required courses may be awarded by the DGS if the student and advisor, in conjunction with the PAC or advising committee, submit a request in writing that specifies the course to be waived and the rationale for the request, including a list of previous courses and statement of the degree to which those courses overlap with the class in question. See the 'waiver of requirements' section below for more information.

**C. Comprehensive exam for Ph.D. students**

After completion of coursework (but no later than the third year), students studying for a Ph.D. degree will take both the written and the oral portions of the Comprehensive Exams covering both the major and minor fields of study. Both exams are evaluated by the student's Examination Committee and successful completion leads to promotion to "degree candidate" status. More information is provided below.

**D. Research program**

On an individual student basis, the School of Plant Sciences offers the opportunity for students supported by fellowships and institutional funds to conduct rotations through various faculty research programs in the first 1-2 semesters of study. Rotations enable the student to identify a suitable laboratory for research and identify faculty who might serve as Major Advisor or members of the student's Advisory Committee. Rotations also expose the student to various disciplines within the fields of plant sciences and microbiology and to techniques that may be useful in the course of her/his research. Students receiving funding from a faculty grant may consider rotations; however, this is rare. The student and the Major Advisor will make the final decision.

If laboratory rotations are to be undertaken, students should complete the Notice of Lab Rotation form and submit it to the Student Records Office (Forbes 319). Students may receive up to three units of credit (PLS 695C) each semester for laboratory rotations.

Once a suitable laboratory for thesis or dissertation research has been selected, the student will work with the Major Advisor and Advisory Committee to develop a research plan. Annual meetings with the Advisory Committee are required to ensure the student is making appropriate progress toward completion of the degree program.

## **E. Thesis or dissertation**

The culmination of a graduate degree is the submission and defense of a Master's Thesis or Doctoral Dissertation. Although a student may begin writing this document in the last few months of the graduate program, the process of preparing a thesis or dissertation begins with the development of a research plan and continues with regular input from the Advisory Committee.

To complete the requirements for a Master's or Ph.D. degree, students must present their research in an open seminar and defend their Thesis or Dissertation in a closed oral examination administered by the Advisory Committee. At the completion of the examination, the Advisory Committee votes to determine if the student is awarded the degree. Doctoral students must submit the Announcement of Final Oral Examination to the Graduate Degree Certification Office at least 7 days prior to the examination and bring appropriate documentation to the exam for committee signatures. See the Graduate College website for more information.

A Manual for Theses and Dissertations is available on the Graduate College website and it is strongly recommended that students read the manual carefully before beginning preparation of a thesis or dissertation. It is the responsibility of the student to ensure that the thesis or dissertation complies with the University's strict guidelines.

Under the non-thesis Master's option, the Advisory Committee and student determine the nature and extent of the written report describing the results from the research activities. At completion, this report is submitted to the student's Advisory Committee for approval.

## **F. Petitioning to have requirements waived**

The requirements described on these pages have been implemented to provide a well-rounded background for all students in areas important to the pursuit of a degree in Plant Sciences/Plant Pathology. While the described guidelines are to be fulfilled by all graduate students, the GSPC recognizes that specific cases may arise in which: 1) equivalent requirements (especially course requirements) have been fulfilled recently (during a MS, for example) at a comparable university, see above; or 2) a student's program would benefit if specific aspects of the School requirements were modified. If a student feels this is the case, a formal written petition (Graduate College Petition Instructions and General Petition Form) may be submitted to the GSPC to request a waiver or modification of requirements. Students may petition only once for each issue, and in all cases, sufficient documentation must accompany the request. Petitions should be made in a timely fashion prior to graduation (generally within the first year for M.S. students and the first two years for Ph.D. students).

A petition to waive SPLS course requirements would include, but not be limited to: grade received, institution and date the course was taken, a letter from the course instructor if possible, a copy of the course syllabus, a description of general areas covered, a list of textbooks used in the course, and a letter of support from the student's PAC or Major Advisor. Other areas open to petition include substitutions in general course area requirements. In all cases, the student should clearly describe why the current requirement would not meet their needs and what would be gained from the requested change.

The primary requirements for completion of a graduate degree are coursework, research program, and production of a formal thesis or dissertation. For a non-thesis Master's Degree, a report must be written and presented to the student's Advisory Committee for approval. Graduate students should prepare an Annual Graduate Student Progress Report (APR) and have their Major Advisor complete the Annual Summary by Major Advisor to ensure sufficient progress is made each year. In addition, Ph.D. students must pass written and oral Comprehensive Exams.

## **G. Assessment**

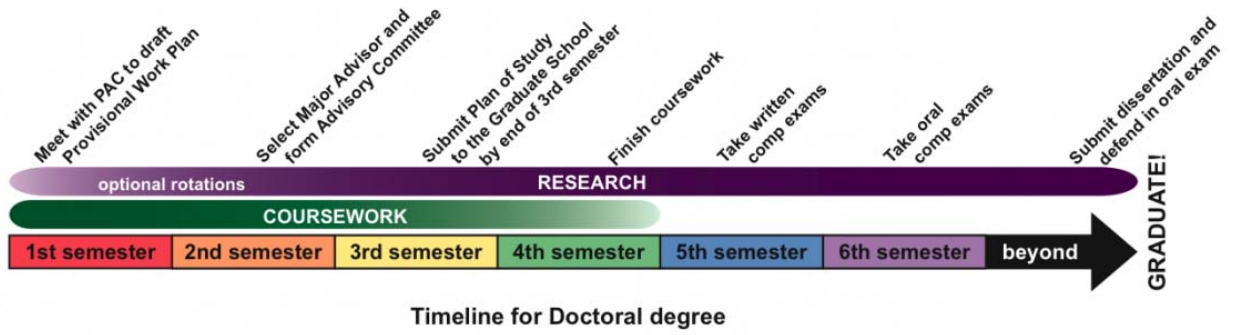
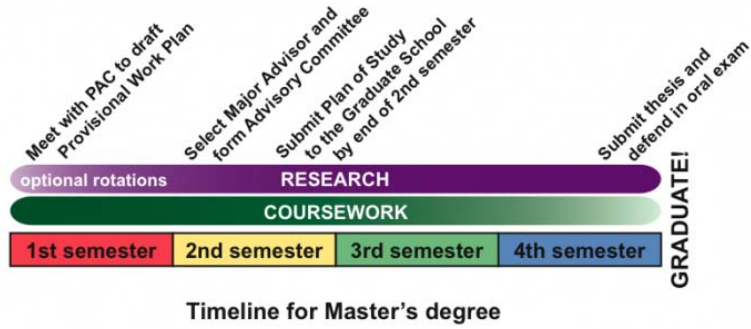
Learning outcomes for students in the School are consistent for our two majors: at completion of the program, each student should be able to:

1. Describe the existing body of information and recognize key concepts and research questions underlying his/her general subject area (i.e. plant biology, microbial biology, genomics, plant pathology)
2. Evaluate the scientific literature essential for his/her research area and articulate how his/her research fits into and/or advances the discipline
3. Use multiple research approaches to collect scientific data related to his/her research area, and interpret, analyze and critique his/her data
4. Communicate his/her research (importance, approaches taken and interpretation of results) effectively in writing and orally
5. Express in lay terms the potential impact of his/her work on society

Assessment forms will be used to evaluate and enhance the quality of our course of study, mentorship, and training. Forms will be distributed to faculty before each student's PAC and defense, and for Ph.D. students, at the oral portion of the comprehensive exam.

## 2. Timelines

These timelines are guidelines to help you stay on track in graduate school.





### **3. Policies**

#### **A. CODE OF CONDUCT FOR GRADUATE STUDENTS**

Graduate students in the School of Plant Sciences must abide by all relevant standards and rules established by the University and School of Plant Sciences (SPLS); failure to do so can result in dismissal from the Program. If there is concern about a specific situation, the student should consult with his/her PAC, Major Advisor, Graduate Student Coordinator, or SPLS Director. University of Arizona Code of Conduct can be found online.

#### **B. CODE OF ACADEMIC INTEGRITY**

Students must abide by the Code of Academic Integrity in all academic work including coursework and research activities. University of Arizona Code of Academic Integrity can be found online.

#### **C. ACADEMIC STANDING**

Students enrolled in the Graduate College are required to maintain a “B” average (3.0); failure to do so can result in dismissal from the Program. Students who have a cumulative grade-point average of less than 3.0 will be placed on academic probation. Students on probation are required to meet with their Major Advisor to discuss steps to correct the problems that led to the probationary status, and to devise a written plan of action to be submitted to the Graduate College. After two consecutive semesters of probation, students will be converted automatically to Non-Degree status by the Graduate College – while in Non-Degree status, students may continue to take graduate courses. Students can apply for readmission to a degree program as early as the semester after their conversion to Non-Degree status if they achieve a cumulative grade point average of at least 3.0 through additional graduate course work. Such a request must be supported by the Director of SPLS and approved by the Dean of the Graduate College. Students who do not maintain a 3.0 GPA are not eligible for assistantships of any kind and cannot be recommended for scholarships or for the award of an advanced degree.

#### **D. VACATION POLICY**

Graduate students supported on assistantships are considered both students and University employees. As students, they will have time off from classes, and can expect to take advantage of major holidays, e.g., Thanksgiving, Winter Break, etc. However, they should plan to take no more than two weeks of additional vacation per year, usually in the summer. Once students select a Major Advisor, they should discuss vacation plans far in advance.

#### **E. LEAVE OF ABSENCE**

Graduate students may request a temporary Graduate Student Leave of Absence from the Graduate Program. Leave of absences are granted on a case-by-case basis for compelling reasons including birth or adoption of a child, personal or family reasons, medical reasons, military duty, or financial hardship. A Graduate Student Leave of Absence may be approved for one semester or one year on the written recommendation of the student’s Major Advisor and the School Director. Students returning after an approved leave of absence will be readmitted to the Program without reapplying. Student insurance is not available while on Graduate Student Leave of Absence and a Graduate Student Leave of Absence does not exempt students from obligations to lending institutions. In addition, use of all University facilities (e.g., libraries, computer services, faculty time, etc.) is suspended while on leave, only academic services or facilities available to the general public can be used. Only when the leave is approved prior to the beginning of the semester for which it is being sought will students be exempted from fees for that semester. Graduate students who do not return at the end of the approved leave or who do not enroll for a semester and have

not received an official leave of absence are required to apply for readmission and are subject to all rules and regulations of the admissions process. Failure to obtain a Graduate Student Leave of Absence or to remain in continuous enrollment will result in penalties as described in the Continuous Enrollment Policy Requirements (below).

#### **F. ACADEMIC LEAVE**

Academic leaves that are taken elsewhere for course work, research, field work, internships, or professional development, are handled on a case-by-case basis by SPLS and the Graduate College.

#### **G. LEAVING THE PROGRAM**

Students may resign from the Graduate Program at any time. To do so, they should write a letter to the Graduate Program Coordinator stating their intent. It is advised that students contemplating such a move should consult with their Major Advisor or the Graduate Program Coordinator before beginning this process. To re-enter the Program, the student must petition the Graduate Student Program Committee (GSPC); acceptance will depend on issues including past performance, funding availability, and whether there is an advisor willing to accept the student for continued graduate studies.

#### **H. DISMISSAL FROM A FACULTY MEMBER'S RESEARCH PROGRAM**

Students can be dismissed from a faculty member's research program at any time based on the Major Advisor's determination (in consultation with the student's Advisory Committee) that the student is not making satisfactory progress. Such dismissal does not constitute dismissal from SPLS, but it is the responsibility of the student to find a replacement Major Advisor in the School within one semester. Students will not be allowed to continue their education in SPLS without a Major Advisor. If a student finds him/herself in this situation, he/she should schedule a meeting with the Graduate Program Coordinator and Director of Graduate Studies immediately to determine the best course of action.

#### **I. DISMISSAL FROM THE GRADUATE PROGRAM**

Students can be terminated from the Graduate Program by their Advisory Committee for failure to: 1) meet minimum academic standards, 2) make satisfactory progress in their degree work, 3) meet generally acceptable ethical standards of the University, 4) pass the Comprehensive Exams, 5) successfully defend their master's thesis or doctoral dissertation.

#### **J. GRADUATE COLLEGE MASTER'S/SPECIALIST CONTINUOUS ENROLLMENT POLICY**

A student admitted to a Master's/Specialist degree program must register each fall and spring semester for a minimum of three graduate units from the original matriculation date until all degree requirements are met. If degree program requirements are to be completed in the summer, the student must register for a minimum of one unit of graduate credit during that term. Summer-Only students are required to enroll continuously for a minimum of three units during consecutive summers until all degree requirements are met. *Students receiving SPLS support are required by the College of Agriculture and Life Sciences to register for a minimum of 10 units each fall and spring semester.*

#### **K. GRADUATE COLLEGE DOCTORAL CONTINUOUS ENROLLMENT POLICY**

A student admitted to a doctoral program must register each fall and spring semester for a minimum of three graduate units from the original matriculation date until the completion of all course requirements, Written and Oral Comprehensive Exams, and 18 dissertation units. When these requirements are met, doctoral students must register for a minimum of one unit each semester until final copies of the dissertation are submitted to the Graduate Degree Certification Office. However, students receiving funding such as assistantships, fellowships, loans, grants, scholarships, or traineeships may be required by their funding source to register for more than one unit to meet full-time status requirements, and should check with the Major Advisor/Graduate Program Coordinator to ensure that they remain qualified for funding.

Doctoral students who have maintained continuous enrollment and are taking only comprehensive exams during either summer or winter term do not have to register for graduate credit during that summer or winter session. Doctoral students who have maintained continuous enrollment, fulfilled all their other degree requirements as well as the 18 hours of dissertation and were enrolled in the prior semester may defend in the summer or winter term without registration. However, Master's students, if the degree requirements are completed during the summer term, they must be registered for a minimum of one unit of graduate credit during that term.

Unless excused by an official Graduate Student Leave of Absence, all graduate students are subject to the Continuous Enrollment Policy and must pay in-state and out-of-state tuition and fees in order to remain in the Program. If the student fails to obtain a Graduate Student Leave of Absence or maintain continuous enrollment, he or she will be required to apply for re-admission to the Program, pay the Graduate College application fee, and pay all overdue tuition and fees, including cumulative late penalties. No tuition or registration waivers will be applied retroactively.

***Students receiving SPLS support are required by the College of Agriculture and Life Sciences to register for a minimum of 10 units each fall and spring semester.***

## 4. Comprehensive exams

Before admission to degree candidacy, Ph.D. students must pass a general examination in their chosen field of study. The Comprehensive Examination is the occasion when the student has both the opportunity and the responsibility to display broad knowledge of plant sciences and/or plant pathology and sufficient depth of understanding in areas of specialization.

### A. Comprehensive Exam Policies

The Comprehensive Examination includes written and oral portions covering the major and minor fields and should be held when essentially all course work has been completed. The written portion of the Comprehensive Examination must be taken no later than the middle of the 3rd year (5th semester) and the oral portion must be completed by the end of the 3rd year (6th semester) or the semester following completion of the written portion. Any deviation from this timeline for either the written or the oral examination must be approved by the Graduate Student Program Committee (GSPC). There must be at least 3 months between completion of the Comprehensive Oral Examination and the Final Oral Defense Examination.

The student's Advisory Committee also serves as the Comprehensive Examination Committee (CEC). One member of the CEC (chosen by the student in consultation with his/her Major Advisor) serves as Chair of the CEC. The Major Advisor has the option to participate on the CEC, but cannot serve as Chair. If the Major Advisor elects not to be a member of the CEC, the student must select another faculty member to serve. The choice must be approved by the GSPC and should be based on the fact that the Comprehensive Examination is intended to test a student's general fundamental knowledge of the major and minor fields of study.

The student is responsible for filling out the "Results of Oral Comprehensive Exam for Doctoral Candidacy" (available at the Graduate College website) and providing this form to his/her CEC at the oral examination. The CEC Chair will complete the *Results of Written Examination* section and gather the needed signatures. A faculty representative of the CEC will take the form to the Graduate College (Admin 316) within 24 business hours of completion of the exam.

### B. Nature of the Exams

#### *Written Comprehensive Exam*

The written comprehensive exam shall consist of written responses to questions as described below.

1. Each committee member will write a question with the goal of assessing the student's breadth and depth of knowledge, ability to think critically, ability to synthesize information from a body of literature, creativity, and ability to communicate effectively in writing.
2. Answers will be limited to no more than five pages per question (not including literature cited and figures/tables).
3. The student will have no more than five weeks to complete the exam.
4. Other than asking the author of the question for clarification, no input from others is allowed in the student's response to each question.
5. The committee will determine by consensus whether the student has passed. The student may be asked to revise one or more answers; revisions must be completed within two weeks.

6. Once the exam committee decides the student has passed, the written portion of the comprehensive exam is complete.

#### *Proposal (optional)*

Whether the student writes a proposal, and, if so, the topic and the details of formatting, will be determined by the student and his/her advisor in consultation with the dissertation committee. This will be independent of the comprehensive exam. Information on model formats/etc. is available from the DGS for advisors and students.

#### *Oral Comprehensive Exam*

The oral exam should test the student's general knowledge and depth in the major and minor fields of study. The exam also provides an opportunity to evaluate the student's ability to synthesize information to generate an answer, think on his/her feet, and communicate effectively.

The comprehensive exam committee will work with the student to determine how best to start the exam. The decision regarding how the exam will start will be made at least two weeks before the exam date, so that the student can prepare appropriately. At the discretion of the committee the student may be asked to give a brief overview or brief, formal presentation of his/her research to date, future research directions, training, experience, and/or interests. Alternatively, the committee may elect to start the exam with questions, or may ask the student to leave briefly in order to discuss the order and content of those questions.

The general format of the exam will include questions from representatives of both the major and minor fields of study. Further information regarding how to prepare for the oral exam is available from the DGS.

#### *Evaluation of examination*

The CEC evaluates the student's examination based on both the written and oral examinations. Usually votes are conducted by email among CEC members for the written exam, and the committee consensus (pass, pass with revisions, fail) is provided to the student by the CEC chair. Usually votes are conducted by anonymous ballot (pass, fail, abstain) in the oral exam.

Options to be pursued in the event of failure are determined by the CEC based on guidelines established by the Graduate College and must be determined in consultation with the DGS. The CEC chair must contact the DGS within 24 hours of the conclusion of the exam if the student has not passed.

If the student fails the first comprehensive examination and a second examination is recommended, at least 4 months must pass between the first and second attempt.

## 5. Financial information

Graduate students in the School of Plant Sciences (SPLS) are supported, as possible, by fellowships, training grants, research, and/or teaching assistantships.

For example, SPLS students can apply for extramural support from numerous agencies (see below). Some require an application during your first year of studies; others can be applied for later in your graduate career. Keep an eye out for funding opportunities and talk with your major advisor about them well ahead of deadlines!

National Science Foundation Graduate Research Fellowship  
NSF Minority Graduate Fellowships  
National Defense Science and Engineering Graduate (DOD)  
EPA STAR Fellowship  
USDA NIFA Predoctoral/Postdoctoral fellowships  
American Association of University Women  
Hertz Foundation  
Ford Foundation  
NIH F Awards

Graduate students supported by assistantships, scholarships, fellowships, and traineeships are expected to meet all requirements as defined by the Graduate College and SPLS. To maintain funded status, **all students on SPLS funds are expected to maintain a GPA of 3.2 or higher**, and show evidence of continuing progress in their graduate education.

Students will be reviewed after each spring semester by the Graduate Student Program Committee (GSPC) based on their **Annual Progress Reports**; the GSPC will then make recommendations regarding continuation of financial support. Additional information on financial support can be obtained from the Office of Student Financial Aid: <https://financialaid.arizona.edu>.

### **ADDITIONAL SUPPORT**

SPLS students also may obtain financial support for tuition, travel, and completion of their dissertation studies from sources including the following:

1. Graduate Tuition Scholarships, University of Arizona Graduate College
2. Travel support to attend research conferences or workshops, School of Plant Sciences
3. Financial support to complete the doctoral dissertation, Marshall Foundation Dissertation Fellowships
4. New opportunities come up from time to time. Develop a habit of keeping an eye out for funding sources.

## 6. Support information

Numerous resources exist within the School, College, and University to assist you in professionally and personally during your graduate career. Here are some important links and resources.

**Campus Health Service:** <http://www.health.arizona.edu/main.htm>

Urgent care clinic, immunizations, pharmacy, counseling and general medicine

**UA LifeWork Connections:** <http://lifework.arizona.edu/>

Child care resources, employee wellness, and assistance

**Graduate and Professional Student Council:** <http://www.gpsc.arizona.edu/>

Links to resources, funding, advice and community

<p><b>General Teaching Topics Resources</b></p> <p>Print sources available 8-5 p.m. (M-F) in OIA</p>	<ul style="list-style-type: none"> <li>• On-Line &amp; Print Articles</li> <li>• Library of Books</li> <li>• Teaching.OIA.arizona.edu</li> </ul>
<p><b>TA Training On-Line (TATO) Modules</b></p> <p>available anytime; *required</p>	<ul style="list-style-type: none"> <li>• Staying Out of Trouble*</li> <li>• Getting to Know Your Students</li> <li>• Creating and Using Grading Rubrics</li> <li>• Assessment Basics</li> <li>• Assessing Student Writing</li> <li>• Leading Discussions</li> <li>• Copyright and Fair Use</li> <li>• Writing Instructional Objectives</li> <li>• Teaching in Labs and Studios (Coming Fall 2011)</li> </ul>
<p><b>“Talking Teaching” Brownbags</b></p> <p>3<sup>rd</sup> Wednesday of each month at noon or upon request</p>	<p>Tips on:</p> <ul style="list-style-type: none"> <li>• Facilitating Discussions</li> <li>• Supervising Labs</li> <li>• Assessing assignments, including assessing student writing</li> <li>• Using D2L</li> </ul>
<p><b>Teaching Workshops</b></p> <p>available upon request; also check OIA website for scheduled workshops</p>	<ul style="list-style-type: none"> <li>• Planning a course or lesson</li> <li>• Working effectively with groups</li> <li>• Facilitating Discussion</li> <li>• Promoting Academic Honesty</li> <li>• Teaching with Technology</li> </ul>
<p><b>Certificate in College Teaching</b></p> <p>Apply at: <a href="http://grad.arizona.edu">http://grad.arizona.edu</a></p>	<ul style="list-style-type: none"> <li>• 10-credit curriculum including supervised practice (designed for those who aspire to a career in college teaching)</li> </ul>