Welcome to the Graduate Programs administered by the School of Life Sciences at Arizona State University (SOLS Graduate Programs). This handbook is designed primarily to guide graduate students through their Programs. The SOLS Graduate Programs Office is here to administer and support students in their studies. This handbook includes specific information about requirements and policies of SOLS. Should questions arise that are not answered here, consult the advisor, Program Director, or SOLS Associate Director of Graduate Programs.

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School of Life Sciences (SOLS)
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PART 1: INTRODUCTION

Professional Ethics
As a graduate student, you have joined a larger community that is engaged in the scientific quest for truth, thus committing yourself to an honest, ethical, and cooperative style of learning and inquiry. You represent the university in this community in many ways. Please consider this responsibility in your conduct and general appearance. Because science progresses as new information is obtained and synthesized, all your work, including research and coursework, must be original, accurate, and documented, and must reflect individual effort and integrity (see also below, p. 5, Student Code of Conduct).

Organization of SOLS and its Graduate (Degree) Programs

SOLS Director
The SOLS Director is the unit representative to the College of Liberal Arts and Sciences at ASU and is responsible for implementing university policies. The Associate Director for Graduate Programs represents the Director in matters related to the Graduate Programs. Although the Director has final authority on many issues, students are encouraged to consult advisors, program directors and/or the Associate Director for Graduate Programs first about procedures and policies. The Director and the Associate Director of Graduate Programs welcome constructive comments on SOLS Graduate Programs.

SOLS Associate Director of Graduate Programs
The Associate Director of Graduate Programs (Grad AD) is appointed to serve a three-year, renewable term and serves as chair of the Graduate Programs Committee. Generally, the Grad AD oversees admissions, TA assignments, financial aspects of the programs, and student progress.

Individual Graduate Programs Steering/Executive Committees
The individual graduate programs oversee key functions of graduate education such as individual student progress, admissions and recruitment, and curriculum. Leadership of Grad Programs consists of a steering or executive committee with a Chair and/or a Director (Program Director). The Chair/Director of the Grad Programs will coordinate closely with the Grad AD for admissions, financial, curricular, and student progress issues.

SOLS Graduate Programs Committee
The SOLS Graduate Programs Committee (GPC) consists of the Grad AD (chair of the committee) and the director of each individual graduate program (or their designee). A Faculty Group not represented through a program director may elect a representative to serve on the GPC along with the chairs/directors of the degree programs. A graduate student serves as a non-voting member of the committee and serves a one-year, renewable term. The graduate student is selected by the SOLS Graduate Student Committee. The Grad AD shall appoint additional members as necessary.

SOLS Graduate Programs Office
The SOLS Graduate Programs Office (SOLS Grad Office) is an invaluable resource for SOLS graduate students. Located in the Life Sciences Building A, Room 181 (LSA 181), the
Program Manager and Coordinator assist students with all aspects of navigating ASU’s rules, requirements, and bureaucracy. For help, see:

- Yvonne Delgado; TA/RA processing, Graduate Student payroll, Scholarships, Fellowships, and all financial matters
- Wendi Simonson; plans of study, admissions, prospectus defenses, thesis/dissertation defenses, course registration
- Teresa Plaskett; course overrides, progress reports, graduate travel awards, assists with academic and payroll processes

**SOLS Graduate Student Committee and Graduate Student Representatives**
The SOLS Graduate Student Committee is the student organization that represents the graduate students of SOLS. The committee president meets regularly with the Grad AD to help coordinate graduate student activities. The committee oversees the nomination and selection of a student representative for the SOLS Graduate Programs Committee.

## PART 2: UNIVERSITY POLICIES AND RESOURCES

### Student Code of Conduct
[https://eoss.asu.edu/dos/srr/codeofconduct](https://eoss.asu.edu/dos/srr/codeofconduct)

“The aim of education is the intellectual, personal, social, and ethical development of the individual. The educational process is ideally conducted in an environment that encourages reasoned discourse, intellectual honesty, openness to constructive change, and respect for the rights of all individuals. Self-discipline and a respect for the rights of others in the university community are necessary for the fulfillment of such goals. The Student Code of Conduct is designed to promote this environment at Arizona State University. The Student Code of Conduct sets forth the standards of conduct expected of students who choose to join the university community. Students who violate these standards will be subject to disciplinary sanctions in order to promote their own personal development, to protect the university community, and to maintain order and stability on campus.”

All Students are expected to adhere to the ABOR Student Code of Conduct:

[http://azregents.asu.edu/rrc/Policy%20Manual/5-308-Student%20Code%20of%20Conduct.pdf](http://azregents.asu.edu/rrc/Policy%20Manual/5-308-Student%20Code%20of%20Conduct.pdf)

### Academic Integrity
[https://provost.asu.edu/academic-integrity](https://provost.asu.edu/academic-integrity)

Academic dishonesty is not tolerated, and if uncovered, appropriate actions are taken. Students are expected to familiarize themselves with what constitutes violations to the academic integrity policy. A detailed list of violations can be found online ([http://provost.asu.edu/academicintegrity](http://provost.asu.edu/academicintegrity)). Briefly, violations include (but are not limited to) cheating on exams and assignments, plagiarizing, fabricating data or information, etc.
Students are encouraged to pay special attention to the definition of plagiarism to avoid unintentional mistakes, and discuss the topic further with their advisors and instructors if they are unclear on whether a particular action constitutes plagiarism.

Allegations of academic dishonesty will be reviewed by the Program Director and Grad AD who will decide on the appropriate actions. This may include placing the student on SOLS academic probation or reporting the student to Graduate Education with a recommendation for dismissal from the program.

A module on academic integrity was recently added to Blackboard that all students need to complete. This is a requirement; a hold will be put on the program and students will not be able to register for classes until this requirement is complete.

**Discrimination Complaints (Title IX)**
[https://www.asu.edu/titleIX/](https://www.asu.edu/titleIX/)

Any complaint of alleged discrimination or harassment in employment, educational programs, or activities because of race, color, religion, national origin, citizenship, sex, sexual orientation, gender identity, age, disability, and qualified veteran status may be filed with the Office of Equity & Inclusion for investigation and resolution. Any employee or student may visit with the Office’s staff to discuss, in confidence, any concern without fear of jeopardizing job or academic standing within the University (480) 965-5057.

**Disabilities Resource Center (DRC)**
[https://eoss.asu.edu/drc](https://eoss.asu.edu/drc)

Registering with the DRC in itself does not change or waive Graduate Education policy or time limits for degrees. If a student needs extra accommodation because of a disability and they are registered with the DRC for this disability, they are welcome to petition Graduate Education as usual for an exception to policy (such as a time extension), citing the disability, and Graduate Education will review and determine if a policy exception is warranted.

If the student uses the disability as justification in the petition, the student will also need to plan on supplying the Graduation Education office with a release so they can work with the DRC.

**Compassionate/Medical Withdrawal**
[http://clas.asu.edu/resources/medical-withdrawal](http://clas.asu.edu/resources/medical-withdrawal)

You may request a medical/compassionate withdrawal if you experience a serious illness or injury or other significant personal situation that prevents you from continuing your classes.
Health Services/Counseling Services
Health Services: http://eoss.asu.edu/health?destination=health
Counseling Services: http://eoss.asu.edu/counseling

ASU Health Services is dedicated to providing accessible health care for all ASU students right on campus. ASU Counseling Services is dedicated to providing confidential, personal counseling and crisis services for students experiencing emotional concerns, problems in adjusting, and other factors that affect their ability to achieve their academic and personal goals.

PART 3: TEACHING AND RESEARCH ASSISTANTSHIPS

All students with regular admission to a graduate program in SOLS are eligible to apply for Graduate Teaching or Research Assistantships. As part of the graduate training program of SOLS, all graduate students are expected to increase their competence in the dissemination of information. Toward this end, every graduate student is encouraged to serve as a laboratory instructor for at least one semester.

Teaching Assistantships (TAs) are awarded on a competitive basis. During the middle of each semester, the Graduate Programs Office sends a memo to all graduate students requesting an indication of their interest in being a TA for the upcoming semester. A typical TA teaches two or more laboratory sessions each semester. Assignments are based on the School’s needs, faculty requests, and students’ interests, experience, and course schedules. Notification of appointments and rejections usually is given by December 15 for the following Spring semester, and August 1 for the following Fall semester. However, some TA positions generally become available just before the beginning of each semester.

A limited number of TAs are also available during the summer sessions. Normally, professors who teach summer courses submit names of graduate students to the Grad AD for students they would like to recommend for summer TA’s.

Research assistantships (RAs) and fellowships funded by on- and off-campus sources become available at various times during the year. The ASU Graduate Education web page provides valuable information on such funding. Faculty research grants may also support graduate students through RA-ships.

TA Eligibility and Assignment

Students who hold TA positions must:

- Register each semester for a minimum of 6 hours of approved graduate coursework. SOLS strongly encourages TAs to enroll for 12-18 hours each semester (courses and research) to take full advantage of the tuition benefit.
- Maintain a cumulative grade point average of at least 3.0 (in approved graduate courses at Arizona State University) determined at the end of each semester.
• Not accumulate more than a total of 2 incomplete (I) grades. (This does not include Z grades given for research work in progress).

In addition, international students must:

• Pass the SPEAK test at ASU with a score of 55 or above or obtain a score of 26 or higher on the speaking section of the iBT (TOEFL).
• Have an appropriate visa status.

Prioritization
If the number of TA requests exceeds the available positions, students will be assigned to positions in the following order:

1. PhD students with an advisor whose primary faculty appointment is in SOLS, with a financial offer letter for 5 years of funding, and in years 1-5 in their programs.
2. Other graduate students, including
   • PhD students in SOLS administered graduate programs who are beyond year 5 in their program with an advisor whose primary faculty appointment is in SOLS. The amount of previous TA support received by the student will be taken into consideration.
   • PhD students in SOLS administered graduate programs who are working for advisors without primary faculty appointment in SOLS, taking into consideration the advisor’s contributions to undergraduate teaching, collaborative grants, and research initiatives within SOLS. The amount of previous TA support received by the student will be taken into consideration.
   • MS students with an advisor with primary faculty appointment in SOLS.
3. Graduate students in programs not administered by SOLS and who are working for advisors without primary faculty appointment in SOLS.

Additional considerations
• TAs are expected to make satisfactory progress towards their degree. Outcomes of an annual review other than satisfactory progress may negatively impact assignment to TA positions.
• Faculty Evaluations of Teaching Assistants and Student Evaluations of Teaching Assistants will also be considered when assigning students to TA positions.

Responsibilities of TAs
The success of the teaching program rests upon the abilities and attitudes of TAs as well as upon the faculty. Experience in this position is considered essential to your development as a graduate student, and your performance impacts the general welfare of the entire program.
Orientation/Professional Development

All new TAs must attend:

- Graduate Education’s Teaching Assistant/Associate Development (TAD) Program. TAD includes pre-orientation modules, a face-to-face orientation, at-risk training, and developmental experiences.
- SOLS TA Training, which is offered at the start of each fall semester.
- Additional active learning modules offered through SOLS and specified at time of SOLS TA training.

In addition, it is strongly recommended that new graduate students take BIO 530, Scientific Teaching in the fall semester of their first year.

All new international TAs must attend:

- Graduate Education’s International TA Orientation. This training is offered at the start of each fall semester.

All TAs must attend:

- All course-specific meetings conducted by the professor or laboratory coordinator in charge of the course they have been assigned to as a TA.

Graduate Education publishes a TA/RA Handbook for graduate students. The handbook includes detailed policies governing work as a TA or RA and information on additional ASU teaching development opportunities. It can be found on their website.

Duties/Responsibilities

The work assignment of each TA begins one week before the first week of instruction each semester and terminates after completion of grades, inventory, laboratory cleanup, and discussion of the TA evaluation with the faculty member responsible for the course. The compensatory 4.5-month stipend is paid every other Friday for 10 pay periods.

The faculty member who directs the course primarily assigns TA activities. Therefore, each TA meets with the instructor in addition to his/her course assignment preparation. TA absences from teaching duties and arrangements for coverage should be made through the supervising faculty member.
TAs are obligated to:

1. Learn the subject material.
2. Prepare for the course and laboratory before the beginning of each semester.
3. Attend all orientations, weekly meetings, and classes as scheduled. Set up materials of the day before class time. Have specific objectives for each period.
4. Prepare and grade weekly laboratory quizzes as requested by the instructor.
5. See that the room is cleaned after each class period in such a manner that only routine preparation is necessary for the next class.
6. Keep the room and equipment cases locked at all times when class is not in session. You are responsible for all materials in the laboratory. You should make sure all microscopes and other equipment are in proper operating condition at all times. Immediately report any malfunctioning microscopes to the faculty member in charge of the course.
7. Take responsibility for all materials in the laboratory. Plan in advance to make sure all materials are ready for the lab. Materials are to be returned in clean condition immediately after use.
8. Immediately report any breakage, damage, or loss of materials to the supervising faculty member who is teaching the lecture portion of the class and, if applicable, the Lab Coordinator for the lab portion of the class. Do not transfer any materials or equipment from one room to another under any circumstances without the express consent of the Lab Coordinator.
9. Make certain that classes are properly taught and properly disciplined. Do not waste the students’ time; be prepared. Treat each student as an individual -- be strict and demand required work, but be fair and honest.
10. Post and keep a minimum of two office hours per week so that students may confer with you outside of class.
11. TAs should not permit students to attend alternate sections without permission of the instructor.

Teaching Performance Review
Faculty Evaluation of Teaching Assistant forms and Student Evaluation of Teaching Assistant forms are required for each TA for each semester and/or summer session. The results of the student evaluations are compiled by Testing Services. The faculty member under whom the TA was working reviews the results. The faculty member then combines the results of the Student Evaluations with their own assessment of the TA on the Faculty Evaluation of Teaching Assistant form. The faculty member discusses the final evaluation with the TA and then submits the completed form to the SOLS Graduate Programs Office.
PART 4: STEPS TOWARDS A DEGREE
All students go through the following general steps in obtaining a degree in SOLS. In addition, carefully review the relevant degree specific information and deadlines in Part 7.

Duration of Program
Full-time graduate students in SOLS should aim to finish a Master’s program within 2 years, and Ph.D. studies within 5 years (4 years if the student came in with a M.S. degree).

By Graduate College policy, the maximum time limits are as follows: https://graduate.asu.edu/key-policies

- All work toward a Master’s degree must be completed within six consecutive years. The six-year period begins with the semester and year of admission to the Program. Graduate courses taken prior to admission that are included on the Plan of Study (iPOS) must have been completed within three years of the semester and year of admission to the Program.
- Doctoral students must complete all program requirements within a ten-year period. The ten-year period begins with the semester and year of admission to the Ph.D. program. Graduate courses taken prior to admission that are included on the iPOS must have been completed within three years of the semester and year of admission to the Program (previously awarded master’s degrees used on the iPOS are exempt).
- The Supervisory Committee, the head of the academic unit and the Graduate Education Dean, must approve any exception. If a time limit exception is approved, the student may need to re-take the comprehensive examinations. Graduate Education may withdraw students who are unable to complete all degree requirements and graduate within the allowed maximum time limits.

Continuous Enrollment
All graduate students must enroll EACH Fall and Spring semester until they graduate. Further, students must be enrolled in courses that meet the Program requirements. If no additional credit is required toward the degree, the student may enroll for XXX 595 or XXX 795, Continuing Registration (where XXX stands for the corresponding three letter program code).

If the student fails to enroll for a semester, Graduate Education automatically drops the student from the Program and university. The student would have to re-apply and be re-admitted to continue the Degree Program. There are no special considerations for the new application -- the application for re-admission is evaluated against the pool of current applications for that year and re-admission is NOT guaranteed.

If graduate study must be interrupted, students may apply for leave status before the semester in which they will not be registered. Leave requests can’t exceed two semesters
over the entire degree program. The student must obtain approval from the Program Director, SOLS Grad AD and the Dean of Graduate Education.

**Advisors and Supervisory Committees**
The Advisor and Supervisory Committee provide guidance in research, administer the Ph.D. comprehensive examinations (Ph.D. only), and oversee the preparation and defense of the dissertation prospectus (Ph.D. only), and direct and evaluate the thesis or dissertation. Detailed guidelines by degree of who can serve on the Supervisory Committee are provided in Part 7, Degree Specific Information and Deadlines.

Students are expected to have an advisor no later than the end of their first year (unless specified otherwise in Part 7 for individual program requirements). Individual graduate programs may require students to have identified an advisor earlier.

Students who no longer have an advisor are immediately put on academic probation and have one semester to identify a new advisor.

Failure to identify a new advisor may result in a recommendation to Graduate Education for dismissal from your graduate program.

The advisor must be a member of the degree’s Graduate Faculty endorsed to chair such committees. Most regular ASU faculty and emeritus faculty can be committee members. Graduate Faculty lists may be viewed at: [http://graduate.asu.edu/graduate_faculty](http://graduate.asu.edu/graduate_faculty). The Advisor and Supervisory Committee members are formally appointed through the iPOS.

Students are expected to meet with their Supervisory Committee at least annually after their first year.

If the student wishes to have someone on his/her Supervisory Committee who is not currently listed in the Program’s Graduate Faculty, he/she needs to submit a Committee Approval Request form and the faculty member’s current CV and birthdate for that person to the Grad AD. **NOTE:** Committee Approval Request forms and CVs must be submitted and approved before submitting the Committee Change request in the iPOS.

When submitting a Committee Change request through the iPOS system, students should print the Committee Change request page from the iPOS web site and obtain signatures of each of the Supervisory Committee members. The paperwork should then be brought to the SOLS Grad Office for the Grad AD’s signature. The completed Committee Change request is forwarded electronically to Graduate Education for review and for final approval.

**Research Involving Human and Animal Subjects**
Theses or dissertations that make use of research involving human or animal subjects must include a statement indicating that the research has been approved by the appropriate university body.
Research involving human subjects conducted under the auspices of Arizona State University is reviewed by the University Human Subjects Institutional Review Board (IRB) in compliance with federal regulations. Documents containing any planned data collection from human subjects require that applications be submitted to the ASU Office of Research Integrity and Assurance [https://researchintegrity.asu.edu/humans](https://researchintegrity.asu.edu/humans) for approval before data collection or recruitment of subjects is initiated.

Research involving the use of animals conducted under the auspices of Arizona State University is reviewed by the Institutional Animal Care and Use Committee (IACUC) in compliance with federal regulations. Documents containing any data collection from animal research require that applications be submitted to ASU Office of Research Integrity and Assurance for approval at researchintegrity.asu.edu/animals.

It is very important that students check with their thesis/dissertation advisor well in advance of data collection to ensure compliance with university regulations regarding the collection of research data involving human and animal subjects.

**Courses and Other Program Requirements**
Detailed descriptions of course and other Program requirements by degree are provided in Part 7, Degree Specific Information and Deadlines.

**Plans of Study**
The Interactive Plan of Study (iPOS) is an agreement between the student and ASU about the course work to be completed for the graduate degree. While completing the iPOS, keep in mind that this is a “plan” for completing your program requirements, and changes will likely need to be made in future semesters.

The iPOS is completed through the online system called the Interactive Plan of Study accessed through MyASU. Revisions to the iPOS are easily made online and should be made each semester if needed.

**How to Guide: iPOS**
Students should discuss course requirements with their Advisor and Supervisory Committee and follow the guidelines for their degree program. In keeping with standards of professional conduct, students are responsible for meeting deadlines and completing requirements as specified below.

Graduate Education requires that student’s file an iPOS no later than when they have completed half of the hours required for their degree (15 hours for master’s degree students and 42 hours for Ph.D. students). Specific programs may require earlier filing. See Part 7, Degree Specific Information and Deadlines. A student is not eligible to apply for comprehensive examinations, dissertation prospectus, or thesis/dissertation defense without an approved iPOS.

With approvals, an iPOS may include hours taken before the start of the current degree program. Ph.D. students may be able apply a blanket 30 credit hours from a conferred
master's degree to the Ph.D. iPOS. Ph.D. and master's students may also be able to use courses on the iPOS that were completed at ASU, or at another university, before starting the degree program, provided the courses were not applied to another degree. The advisor, program chair, and Graduate Education must approve any such hours. An original transcript must be on file with Graduate Education. See ASU Pre-Admission Credits and Non-ASU Transfer Credits in Graduate Policies and Procedures (http://graduate.asu.edu/faculty_staff/policies) for details.

Step-by-step instructions for completing the iPOS are available in “How to submit your interactive Plan of Study (iPOS)” at: http://graduate.asu.edu/how-to.

After filling out the iPOS online, the student submits signed paper copies to the SOLS Grad Office. To do so, print out the ‘Courses’ page and the ‘Approval’ page from the iPOS summary tab. The iPOS approval page only has a signature line for the faculty advisor. However, SOLS asks that all supervisory committee members named in the online system print their name and sign the approval page. Once the student submits the signed version of the iPOS to the SOLS Grad Office, the Program Director reviews and approves the iPOS, before the completed iPOS is sent electronically to Graduate Education for final approval.

Students should check the iPOS each semester. If the computer system identifies errors, update the iPOS.

To update an iPOS, submit a Course Change request in the online system. Students can remove courses that they have not taken from the iPOS and/or add courses taken that were not originally listed on the iPOS. Once the iPOS is updated, save and submit the changes, then notify Wendi Simonson in the Grad Programs office so she can evaluate the corrections and approve the updated iPOS. Note that courses required for a degree program cannot be substituted unless they have not been taught for 2 years.

Not all courses a student takes need to appear on the iPOS. Once students complete the required degree credits, they may take further courses and not add them to their iPOS.

**Comprehensive Exams and the Prospectus Defense (Ph.D. Degrees Only)**

Ph.D. students demonstrate their ability to integrate knowledge of their research area and their potential to conduct an original research project in comprehensive exams and a prospectus defense. Graduate Education requires students to pass a written comprehensive exam, develop a dissertation proposal/prospectus, and orally defend the prospectus. Programs administered by SOLS use the written dissertation prospectus as the written comprehensive examination. See Part 7, Degree Specific Information and Deadlines, for detailed information on the required comprehensive exam, prospectus, and prospectus defense.

**How to Guide: Comprehensive exam and prospectus defense**

Students must be in good academic standing regarding GPA requirements and have an approved iPOS to be able to take comprehensive exams and defend a prospectus.
Students should notify the SOLS Grad Office several weeks in advance of the comprehensive exam/prospectus defense date. The student’s records are reviewed to assure the student has met all program and The Department of Graduate Education’s requirements to hold a prospectus defense.

The student brings the SOLS’ “Report of Doctoral Comprehensive Examinations and Approval of the Ph.D. Dissertation Prospectus” form to the comprehensive exam/prospectus defense. The form should be carefully completed, as it requires multiple signatures from all Supervisory Committee members. Afterwards, the student delivers the form to the SOLS Grad Office. The Grad AD signs as Head of the Academic Unit and the results are entered into campus data systems.

**Master’s in Passing (Select Ph.D. Students Only)**

A Master’s In Passing (MIP) may be awarded to Ph.D. students after they have advanced to candidacy, in the case that they have not applied hours from a previous Master’s to their Ph.D. plans of study

**How to Guide: Filing for a MIP by email and online**

Filing for a MIP is done completely by email and online.

To be eligible for a MIP, the student must be registered in the term in which they apply for the MIP. MIP degrees are awarded at the end of the semester in which the student applies.

The student asks the SOLS Grad Office to email the MIP application. Once the MIP form is filled out, the student emails it back to the SOLS Grad Office, in turn the SOLS Grad Office emails the MIP application to Graduate Education for approval. When Graduate Education approves the MIP, the student and the SOLS Grad Office will receive an email stating that the MIP will be awarded after the student follows the steps stated in the email sent by Graduate Education. See example below;

1) **Submit an iPOS for the MIP.**
   a) Go to my.asu.edu and log in.
   b) Look for the My Programs section.
   c) Click on the My Graduate Plan of Study link.
   d) Choose the appropriate master’s degree and start an iPOS.
   e) Complete all steps for the iPOS and submit it.
   f) The iPOS should list 30 hours of course work.
   g) Students may use XXX 792 credits on the iPOS, but XXX 799 courses are NOT permitted on the MIP iPOS.

2) **Work with SOLS Grad Office for approval of the MIP iPOS.**

3) **After the iPOS is approved, the student must also apply to graduate from the MIP.** For information on how to apply for graduation, deadlines, and the online application form, visit MyASU and click on the Graduation Tab.
Theses and Dissertations

The culminating experience of most graduate degrees is a dissertation or thesis that students orally defend. These are original works of research and scholarship. Graduate Education’s process for defending a dissertation or thesis and completing an ASU graduate degree has numerous strict deadlines. Be sure to consult Graduate Education’s web site several months before the anticipated completion of a degree for specific deadlines and process changes. SOLS and Graduate College also have helpful resources for navigating the process, they are:

- The SOLS Graduation Packet. The SOLS Grad Programs Office circulates this packet near the beginning of each semester. Students can also get one from the office at any time. It outlines the steps and deadlines to meet for defending and graduating.
  - Graduate Education guides posted at: https://graduate.asu.edu/completing-your-degree
    - How to use a style guide for your thesis or dissertation
    - APA quick reference sheet (pdf)
    - Chicago quick reference sheet (pdf)
    - Turabian quick reference sheet (pdf)
    - MLA quick reference sheet (pdf)
  - Graduation deadlines
  - How to use the online Format Tool for your thesis or dissertation
  - How to complete your thesis/dissertation format review
  - How to graduate: Master’s with Applied Project
  - How to graduate: Master’s with Thesis
  - How to graduate: Doctorate (Ph.D./DM.A./EdD/AuD/DNP) with Dissertation

How to Guide: Basic steps in completing a graduate degree

1) **Register.** Students MUST register for at least one credit hour during the semester in which they plan to defend. For students who defend during the summer, enrollment in any one summer session (8-week, 1st 5-week, or 2nd 5-week) fulfills the requirement. If the oral defense is scheduled between sessions, the student must be enrolled during the up-coming semester.

2) **Update the iPOS.** See “Plans of Study” above.

3) **Apply for graduation.** Apply for graduation through the MyASU graduation tab. If application for graduation is made after the deadline, the student is assessed a late fee, has to apply in person in the student services building, and his/her name does not appear in the commencement program.

4) **Schedule the defense.** The student determines a good defense date and time with the supervisory committee. The defense date must meet Graduate Education’s graduation deadlines https://graduate.asu.edu/completing-your-degree#tabs-0-content_main-5. The defense must be held on an ASU campus and during regular business hours. At least 50% of the committee must be physically present at the defense. It is recommendable to schedule a defense date several months in advance. Plan ahead! See the SOLS Grad Office to schedule a room for the oral defense. Arrange with SOLS Facilities Office for any audio/video equipment for the defense, if
needed. Once the student has finalized a date with the supervisory committee and the SOLS Grad Office, he or she schedules the defense using the “Defense” tab in MyASU.

**Format the thesis/dissertation and submit it for format review.**
The document that you submit for format approval must be a complete, defense-ready document, you must submit a complete draft of your document at least ten (10) calendar days before your defense date by uploading your document to the Graduate Education Dropbox link. Please be sure to include your ASU Affiliate ID number in the file name. Graduate Education has designed a formatting tool to assist students with formatting the title page, table of contents, list of illustrations, acknowledgements, etc. It can be found on their website: https://graduate.asu.edu/format-manual Watch for emails from grad format to make any corrections.

**Using your own publications as chapters in your dissertation**
Please refer to the format manual https://graduate.asu.edu/format-manual there is a pdf document that explains what you need to do.
https://graduate.asu.edu/sites/default/files/cdpm/author-co-author_1.pdf
https://provost.asu.edu/academicintegrity/students.
This website links to the university library website that also has information on citations http://libguides.asu.edu/citing.

5) **Complete Survey of Earned Doctorates** (Ph.D. only). Ph.D. students must complete this survey. It is available on Graduate Education web site: http://graduate.asu.edu/progress/graduation_deadlines

6) **Register for commencement.** If planning to attend any of the commencements, sign up via MyASU and purchase academic regalia at ASU’s Bookstore.

7) **Announce the defense.** Submit the following information to the SOLS Grad Office 10 working days in advance of the defense by email in a word document so that the defense can be announced:
   - Date, time and place of the defense
   - Title of the dissertation/thesis
   - Supervisory Committee members
   - Abstract
   - Color or black/white photo or illustration related to the defense (optional)

8) **Hold the defense.** Graduate Education sends the "Announcement and Report for Doctoral Dissertation Defense" form (Pass/Fail form) electronically to the advisor and Supervisory Committee members before the defense. The student should check with his/her advisor before the defense to make sure he/she has received the form.
The student, the Chair or one Co-Chair, and 50% of the committee must be physically present at the defense. Follow the procedures stated on the Pass/Fail form under “Level of Pass or Fail.”

9) **Complete the Pass/Fail form.** When the defense is determined to be successful, the student needs to get all the necessary signatures on the Pass/Fail form. If a faculty member is substituting for a Supervisory Committee member who could not attend the defense, have the substitute sign the SUPERVISORY COMMITTEE MEMBER’S FULL NAME followed by the substitute’s INITIALS ONLY. Please include the email from the committee member sent to the advisor giving the substitute permission to attend on their behalf and sign. If revisions are required, the advisor signs the Pass/Fail form again after all revisions have been completed satisfactorily. Students should bring the Pass/Fail form to the SOLS Grad Office to make a copy for your file. Once the student has received final format approval from the grad format, he or she takes the completed Pass/Fail form to the Department of Graduate Education for the final approval. The student should keep a copy of the completed Pass/Fail form.

10) **Upload the final document to ProQuest.** Once the document has been submitted to ProQuest and approved by ASU format advisors for publication, the document cannot be recalled; *no changes may be made to an approved document.* The student should always check to make sure he or she has submitted the correct version for publication.

11) **Attend commencement,** if desired.

12) **Leaving campus.** Return any keys to the SOLS Facilities Office, clean out desk and office space, and give mail-forwarding information to the SOLS Grad Office.

**PART 5: ANNUAL REVIEWS**

All graduate students in programs administered by SOLS must meet at least annually with their supervisory committees (or with the advisor or program director in case they have not yet formed a supervisory committee) to review the progress of their research and complete the SOLS annual evaluation of graduate student progress report. This report is due to the SOLS program office by April 1st of every year and should incorporate outcomes from the yearly committee meeting. Hence the students need to schedule their committee meeting well in advance of this deadline. The primary purpose of the meeting and progress report is to ensure an ongoing dialog between the student and their Supervisory Committee about the students’ progress in their research and timely progress towards their degree. The form will be e-mailed to the students when the call for progress reports goes out, and is also available on our Graduate Programs Blackboard site. The due date to have the progress report turned into the SOLS Graduate Programs office is April 1st. Failure to turn in the Student Progress Report by the deadline will constitute non-satisfactory progress.
The results of these evaluations are incorporated into a variety of decisions including:

- Nominations for fellowships and awards
- Teaching Assistantships and eligibility
- Summer support
- Petitions for support extensions
- SOLS academic probation
- Program dismissal

**Annual Supervisory Committee Meeting**

Annual supervisory committee meetings must occur before the deadline for submitting the progress report. Any supervisory committee meeting in which students present their progress and discuss it with their supervisory committees can be used to fulfill this requirement. For students in their first year, the advisor and/or program director can review and approve the progress report in place of the supervisory committee.

Students may be required to provide materials to members of their supervisory committee 1-2 weeks before the annual meeting. See program-specific requirements in Part 7, Degree Specific Information and Deadlines.

During the supervisory committee meeting, the student orally presents a short synopsis of his or her cumulative research progress and future plans, including coursework and their iPOS. The supervisory committee asks questions and gives comments. The supervisory committee excuses the student and discusses the content of the progress report and the continuing status of the student. The student returns, and the supervisory committee discusses the outcome of their deliberations and the nature of their evaluation with the student. The discussion includes an assessment of the strengths and weaknesses of the student’s research efforts and any suggestions for alterations in the student’s plans.

The advisor completes and signs the progress report form, including the brief written evaluation. This evaluation includes the input from the supervisory committee and assesses the student’s cumulative progress. The student signs the completed progress report form, indicating that he/she has seen the form and is aware of the supervisory committee’s evaluation. The student adds a self-evaluation (approx. one page) and their most recent CV and submits the completed progress report form to the SOLS Grad Office.

**Program Review**

Program directors review annual progress reports prepared by students and their supervisory committees and confirm whether or not each student is making satisfactory progress. Program directors may provide additional feedback directly to students.

**SOLS Review**

The Grad AD reviews any progress reports indicating a student is not making satisfactory progress and any progress reports where the program director and the supervisory committee disagree on whether the student is making satisfactory progress. The Grad AD,
the program director, and the committee chair or co-chairs discuss the student’s status. Their decision becomes the student’s status for the review cycle.

Any student whose review outcome is that of “not making satisfactory progress”, is notified in writing in a joint letter from the Grad AD and the program director. (See Academic Standards below.)

Progress Report Timeline
- April 1st. Progress reports, including advisor’s evaluation, due to SOLS Grad Office.
- April 1st – May 31st. Program directors review progress reports
- June 1st. Program directors assessments due to the Grad AD.
- June 1st – 30st. Grad AD reviews progress reports and program assessments. Grad AD confers with program directors and advisors about students who are not making satisfactory progress.
- July 1. Annual review cycle completed with determinations on whether students are making satisfactory progress.

Progress Report Timeline Exceptions
Students who are close to finishing (within one semester) may request to waive the progress report. Other students with unusual and compelling circumstances may also request an extension of the progress report deadline.

Requests affecting progress report submissions must:
- Be made in writing to the Program Director and the Grad AD
- Explain the reason for the request
- Provide a date by which the student will either finish the degree or provide the evaluation
- Be accompanied by a memo from the advisor endorsing the request

PART 6: ACADEMIC STANDING

Satisfactory Progress
Students are responsible for reading and following satisfactory academic progress policies for the ASU Graduate Education, SOLS, and their individual graduate program.

Graduate Education Satisfactory Academic Progress Policy
All graduate students are expected to make systematic progress toward completion of their degree. This progress includes satisfying the conditions listed below, and achieving the benchmarks and requirements set by the individual degree programs. If a student fails to satisfy the requirements of their degree program and/or the benchmarks outlined below, the student may be placed on academic probation, and ultimately dismissed from their program based on the Academic Unit’s recommendation to Graduate Education. The Dean of Graduate Education makes the final determination.

The following criteria determine satisfactory progress:
1. Maintain a minimum of 3.00 GPA on all three of the reported GPA's, the Cumulative, the Overall Graduate and the Plan of Study (iPOS). If any of the three GPA's fall below 3.00, the student is placed immediately on academic probation by Graduate Education. The AD for Graduate programs will follow with a letter identifying the conditions and time-frame for making satisfactory academic progress in their degree program so that the probation status can be lifted (please note that for the overall graduate GPA, only 500 level or higher courses count towards this GPA.)
   • The iPOS GPA is calculated from all courses that appear on the student's approved iPOS. The overall graduate GPA is calculated from all courses numbered 500 or higher that appear on the transcript, with the exception of courses counted toward an undergraduate degree at ASU (unless shared with a master's degree in an approved bachelor's/master's Degree Program); and courses identified as deficiencies in the original letter of admission.
   • The student is considered to be on academic probation until the conditions specified in the academic performance improvement plan are met and all three GPAs are at or above 3.00.

2. Satisfy all requirements of the Graduate Degree Program
   • Satisfy the maximum time limit for graduation from the student’s graduate Degree Program (six years for masters, ten years for Ph.D.).
   • Successfully pass comprehensive exams, qualifying exams, and the oral defense of the proposal/prospectus for the thesis or dissertation.
   • Successfully complete the culminating experience and, if required, the oral defense of the culminating experience.

3. Graduate students must stay continuously enrolled in their degree program. Failing to do so without Graduate Education-approved Request to Maintain Continuous Enrollment is considered lack of academic progress and may lead to automatic dismissal of the student from the degree program. Persistent "W" and "I" grades during multiple semesters on an iPOS or transcript may reflect lack of academic progress.

Full Graduate College Policies and Procedures:

https://graduate.asu.edu/key-policies

SOLS Satisfactory Academic Progress Policy
To be considered as making satisfactory progress toward the degree, a student must:

• Meet Graduate Education and program GPA requirements and progress deadlines as listed above.
• Complete the SOLS annual evaluation of graduate student progress (Progress Report) or equivalent program annual evaluation by April 1st of each year and be found to be making satisfactory progress by the supervisory committee and Program Director (see above part 5: Annual Reviews).
• Have a permanent advisor by the end of the period specified by the Graduate Program. Students who no longer have an advisor have one semester to identify a new one under academic probation (see below). Students who fail to identify a chair/advisor after the period outlined under academic probation will be considered to be making unsatisfactory progress and may be recommended for dismissal.

Students who are making unsatisfactory progress may be placed on SOLS academic probation or recommended to Graduate Education for dismissal from the Program. Consequences of unsatisfactory progress, including failure to complete a Progress Report by April 1st, will directly affect consideration for SOLS fellowships or awards, other financial support from SOLS, eligibility for SOLS academic year TA and RA positions, and consideration for SOLS summer TA and RA positions. In addition, programs and individual faculty may use progress determinations to inform funding decisions (see SOLS Academic Probation below).
### Individual Graduate Program Satisfactory Academic Progress Policies

<table>
<thead>
<tr>
<th>Degree</th>
<th>Appoint permanent advisor</th>
<th>Pass comprehensive exams (Ph.D. only)</th>
<th>Successfully defend dissertation prospectus (Ph.D. only)</th>
<th>Submit completed dissertation or thesis</th>
<th>Other program requirements</th>
</tr>
</thead>
<tbody>
<tr>
<td>Animal Behavior Ph.D.</td>
<td>Fall semester of first year</td>
<td>5th semester</td>
<td>5th semester</td>
<td>Not specified. Target Year 5 or 6.</td>
<td></td>
</tr>
<tr>
<td>Biology Ph.D.</td>
<td>2nd semester</td>
<td>5th Semester</td>
<td></td>
<td>Not specified. Target Year 5 or 6.</td>
<td></td>
</tr>
<tr>
<td>Biology and Society Ph.D.</td>
<td>2nd semester</td>
<td>6th semester</td>
<td>6th semester</td>
<td></td>
<td>12th semester</td>
</tr>
<tr>
<td>Environmental Life Sciences Ph.D.</td>
<td>Fall semester of first year</td>
<td>5th semester</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Evolutionary Biology Ph.D.</td>
<td>Fall semester of first year</td>
<td>6th semester</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>History and Philosophy of Science Ph.D.</td>
<td>2nd semester</td>
<td>6th semester</td>
<td>6th semester</td>
<td></td>
<td>12th semester</td>
</tr>
<tr>
<td>Microbiology Ph.D.</td>
<td>Fall semester of first year</td>
<td>4th semester</td>
<td></td>
<td>Not specified. Target Year 5 or 6.</td>
<td></td>
</tr>
<tr>
<td>Molecular and Cellular Biology Ph.D.</td>
<td>Fall semester of first year</td>
<td>4th semester</td>
<td>5th semester</td>
<td>Not specified. Target Year 5 or 6.</td>
<td></td>
</tr>
<tr>
<td>Neuroscience Ph.D.</td>
<td>Summer before starting 2nd year</td>
<td>6th semester</td>
<td>6th semester</td>
<td>Summer after eighth year</td>
<td>--2 lab rotations in yr. 1 --No course grade below B-</td>
</tr>
<tr>
<td>Biology M.S.</td>
<td>Fall semester of first year</td>
<td>NA</td>
<td>NA</td>
<td></td>
<td>Semester 4</td>
</tr>
<tr>
<td>Biology and Society M.S.</td>
<td>Semester 1</td>
<td>NA</td>
<td>NA</td>
<td></td>
<td>Semester 4</td>
</tr>
<tr>
<td>Microbiology M.S.</td>
<td>Semester 1</td>
<td>NA</td>
<td>NS</td>
<td></td>
<td>Semester 4</td>
</tr>
<tr>
<td>Molecular and Cellular Biology M.S.</td>
<td>Semester 1</td>
<td>NA</td>
<td>NS</td>
<td></td>
<td>Semester 4</td>
</tr>
<tr>
<td>Plant Biology and Conservation M.S.</td>
<td>Fall semester of first year</td>
<td>NA</td>
<td>NA</td>
<td></td>
<td>Semester 4</td>
</tr>
</tbody>
</table>

Updated 9/8/2016 WS
**SOLS Academic Probation**

SOLS academic probation affects the student’s status within SOLS but is not reported to Graduate Education or put on a student’s permanent academic record. Students can be placed on probation for academic dishonesty or unsatisfactory progress (see SOLS satisfactory academic progress policy above). Students should take probation as a strong warning from SOLS that their continuing status in the program is in jeopardy unless corrective action is taken.

Students on probation are notified in writing. The probation letter includes:

- Academic performance and/or program requirements to be met
- Deadlines for meeting requirements
- Consequences of not meeting requirements at the determined time
- A copy of the probation letter is sent to the College of Liberal Arts and Sciences (CLAS) Associate Dean of Graduate Programs.

After probation, students can be returned to a status of satisfactory progress or recommended for program dismissal. Students who meet the academic performance and/or program by the specified deadlines (generally within one semester) are considered to be making satisfactory progress.

Students who are not able to fulfill a requirement by its deadline may submit a petition in writing to their Program Director and the Grad AD requesting an extension to complete the requirement. The petition must:

- Explain extenuating circumstances as to why the requirement cannot be met
- Describe what has been done and will be done to get back on track
- Give the date(s) as to when the requirement will be completed
- Include a letter of support from the student’s advisor

Students will be notified whether or not the Program Director and the Grad AD have granted an extension by email or letter.

**Dismissal**

SOLS may seek dismissal in several situations.

1. Provisional admission (as defined in the SOLS offer letter): At the end of each semester, Graduate Education reviews students who were admitted provisionally to determine if they have successfully met the conditions of admission. If a student has met the conditions, the provisional admission hold will be removed from the student’s record. If a student has not successfully met the conditions of admission, Graduate Education will dismiss the student from the program. There is no appeal process for provisional admits.

Updated 9/8/2016 WS
2. Admission with deficiencies (as defined in the SOLS offer letter): At the end of each semester, SOLS reviews students that have been admitted with deficiencies. If a student has successfully completed the requirements pertaining to the deficiencies outlined by SOLS in the student’s admission letter, the Grad AD and Program Director will send a letter to the student informing them that they have met the conditions of admission and are in good academic standing. If a student has not successfully met the requirements, the Grad AD will notify Graduate Education that the student did not meet the conditions of admission and recommend the student for dismissal from the program. The student can petition this decision and request to extend the probationary period by one more semester.

3. Individual graduate program, SOLS, and Graduate Education non-satisfactory progress. For students who have not met the conditions of probation at the end of the deadline stated in the probation letter, the Grad AD will send the student a letter with notification that a recommendation has been made to Graduate Education that the student be dismissed from the degree program. The student can petition this decision and request to extend the probationary period by one more semester.

4. SOLS provides the College of Liberal Arts and Sciences (CLAS) Associate Dean of Graduate Programs with a copy of the letter recommending dismissal of the student, along with supporting documentation.

**Appeals**

Appeals must be made to SOLS within 10 days of the notification date. CLAS then notifies students who appeal in writing that the College appeal has been received and will be reviewed. Possible outcomes of an appeal are:

1. The CLAS Associate Dean notifies student in writing of a successful appeal. The letter will include any stipulations or restrictions (e.g., continuation in the program is under the condition of academic probation, contingent on corrections within a specific time frame).
2. The CLAS Associate Dean notifies students in writing of an unsuccessful appeal and that they will be recommended to Graduate Education for dismissal.
PART 7: INDIVIDUAL PROGRAM REQUIREMENTS

ANIMAL BEHAVIOR Ph.D.
The Ph.D. in Animal Behavior is a research training degree, culminating in a dissertation that analyzes a behavioral problem from multiple levels of analysis and exemplifies the development of an independent scientist. The degree should be completed in 4 to 5 years.

SUPERVISORY COMMITTEE
Selected by the student in consultation with his/her advisor by the end of the 2nd semester.
- The committee will have at least 5 members (the advisor and at least 4 other members).
- Composition needs to be approved by the Animal Behavior Executive Committee.
- One member may be from outside ASU but will need to be approved by the program’s Executive Committee.
- The student will annually convene and meet with their Supervisory Committee to review their progress in the program. The advisor will file a report on behalf of the committee that evaluates the student’s progress and plans for the coming year.

PROGRAM OF STUDY
Filed by the end of the 2nd semester after meeting with Supervisory Committee.
- Each student, with his or her advisor, develops an interactive Plan of Study (iPOS), which the student's Supervisory Committee approves and oversees.
- 84 hours required, minimum GPA = 3.0.
- 8 credit hr. of core courses: ANB 601 (4 credit hours) to be taken in the first or second semester, and ANB 602 (one credit hour) to be taken 4 times during the program of study.
- 12 hr. of ANB 799 dissertation hours.
- The remaining credit hours should be selected in consultation with the Supervisory Committee and filled with either elective hours or ANB omnibus courses (ANB 784, Doctoral Internship; ANB 790, Doctoral Reading and Conference). Except for ANB 799 Doctoral Dissertation, the omnibus courses are not required.
- No more than 6 credit hours of 400-level coursework can be included on the student’s iPOS.
- If a student has previous graduate-level credits but has not received a graduate-level degree, a maximum of 12 semester hours of credit completed before admission may be petitioned from Graduate Education to be included on the program of study for the current doctoral degree.
- Students may not apply credit hours earned for a doctoral degree previously awarded at ASU or another institution towards their current ASU doctoral degree.
- The student may apply up to 30 semester hours from a previously awarded master’s degree toward their doctoral iPOS.

COMPREHENSIVE EXAM AND DEFENSE OF THE DISSERTATION PROSPECTUS
To be completed before the end of the 5th semester.
(A) A synthetic NSF-style RESEARCH PROPOSAL constitutes the DISSE R TATION PROSPECTUS.

- A detailed description of the rationale and experimental plan of the dissertation, preferably in the style of an NSF DDIG proposal, should be submitted to the Supervisory Committee at least two months before the scheduled comprehensive exam date. Students will be engaged in dissertation projects that approach a behavioral problem from multiple levels of analysis. The committee will judge how well the student’s research proposal is designed and justified.
- Within one month of receiving the dissertation prospectus, committee members should send any suggestions for improvement of the prospectus to the student and advisor. Once these changes are incorporated into the prospectus and before the exam can be held, each committee member must in writing indicate to the student’s advisor that the prospectus is “ready to defend.”

(B) The ORAL COMPREHENSIVE EXAM

This exam consists of the defense of the research proposal and subsequent questions from the Supervisory Committee on the broader context of the proposed research.

- At the beginning of the exam, the student may choose to give a 15-20 min presentation on their research plan. This part is open to a general audience of faculty as well as to the Supervisory Committee. Questions from the committee in closed session should then focus on the prospectus and the student’s general knowledge of their research and teaching discipline.
- There are several allowable outcomes of the exam.
- Pass – Satisfactory performance on both the written and oral components.
- Postponed decision – Unsatisfactory performance on one or both components, but with an explicit plan for dealing with the deficiencies by rewriting the prospectus, retaking the oral, or both.
- Failure – Unsatisfactory performance on both the written and oral components.

CANDIDACY

- Students are advanced to Candidacy after successfully completing steps 1 – 3.

APPLY FOR GRADUATION

- See Graduate Education web site for details of this process. students.asu.edu/graduation

DISSE R TATION and DEFENSE

- To be completed by end of the 10th semester.
- Convene with Supervisory Committee about 4 months before planned defense.
- Register for a least 1 hour of appropriate graduate level credit during the semester in which the dissertation is defended.
- Students should submit their completed dissertation to their committee members at least one month prior to the scheduled exam.
- Students are strongly advised to work with their committee members and allow them sufficient time to provide input on the chapters.
• Defense should be scheduled at a mutually agreed time by the student and Supervisory Committee that takes into consideration the deadlines for graduation set by Graduate Education.

• Submit request to hold the defense, dissertation, and appropriate paperwork to Graduate Education at least 10 working days prior to scheduled defense date.

• The first hour of the defense is a public presentation of the dissertation research. After the public defense, the Supervisory Committee will examine the student and judge whether the student’s dissertation and performance in the oral defense are sufficient to award the PhD degree.
BIOLOGY Ph.D.

SUPERVISORY COMMITTEE**
- Selected by end of 2nd semester
- At least 4 (major professor and at least 3 others)

PROGRAM OF STUDY
- Filed by end of 2nd semester
- 84 semester hours required
- A minimum of 9 semester hours consisting of:
  - 3 or 4 semester hours of core course: BIO 614 Biometry or BIO 620 Research Prospectus Writing
- Remaining semester hours of elective courses including seminars or classes at the 400, 500, 600 or 700 level. No more than 3 semester hours of the required semester hours may be taken at the 400 level.
- Optional additional semester hours of elective courses including seminars or classes at the 400, 500, 600 or 700 level, but no more than 6 semester hours at the 400 level in total.
- Exactly 12 BIO 799 Dissertation semester hours
- The remaining semester hours, making up the 84 semester hours total, are BIO 792 (Research). The University requires at least 12 semester hours of Research, but typically Biology PhD students take a much larger number of semester hours.
- Of the 84 semester hours, at least 30 semester hours of the approved PhD program hours and 12 dissertation hours must be completed after admission to the current PhD program
- If a student has previous graduate level credits but has not received a graduate level degree, a maximum of 12 semester hours of credit completed before admission may be included on the program of study for the current doctoral degree.
- Students may not apply credit hours earned for a doctoral degree previously awarded at ASU or another institution towards their current ASU doctoral degree.
- The student may apply up to 30 semester hours from a previously awarded master's degree toward their doctoral program of study.

**The requirements for supervisory committees and plans of study for the Biology PhD were updated as of August 2016. Any students who began the degree before that semester are subject to the previous requirements (consult your program director for questions).

RESEARCH PROPOSAL
- Takes the place of the WRITTEN COMPREHENSIVE EXAM – Students will be requested to submit their research proposal in the 4th or 5th semester and required to submit their research proposal by the end of the 6th semester for satisfactory progress – otherwise the student goes on probation. Students who are not able to fulfill this requirement by its deadline may submit a petition in writing to their Program Director and the Grad AD as described in the SOLS graduate handbook.
• A research proposal that synthesizes current ideas in the student’s area of research interest
• Must follow the guidelines of an appropriate funding agency (e.g., NSF or NIH).
• Should show sufficient breadth and depth in the research area to be suitable for submission to a national funding agency, although actual submission and approval is not a criterion for successful completion of this requirement.
• Must be approved by Supervisory Committee before the oral comprehensive examination.

ORAL COMPREHENSIVE EXAM
• Students will be requested to take their exam in the 4th or 5th semester and required to take their comprehensive exam by the end of the 6th semester for satisfactory progress – otherwise the student goes on probation. Students who are not able to fulfill this requirement by its deadline may submit a petition in writing to their Program Director and the Grad AD as described in the SOLS graduate handbook.
• A defense of the written research proposal
• Test of the depth and breadth of knowledge in the major area, particularly in the research area of the student
• Failing the comprehensive examination(s) is considered final unless the supervisory committee and the head of the academic unit recommend and the Vice Provost for Graduate Education approve a re-examination as described in the ASU graduate policies. Only one re-examination is permitted.

CANDIDACY
• Students are advanced to Candidacy after successfully completing steps 1 – 4

APPLY FOR GRADUATION
• See Graduate Education web site for details of this process. students.asu.edu/graduation

DISSERTATION and DEFENSE
• Typically completed by end of the 10th semester
• Consists of a 1 hour public lecture followed by an oral examination administered by the Supervisory Committee
• Convene with Supervisory Committee about 4 months before planned defense, present dissertation project and get approval to prepare the final written document
• Submit dissertation draft to the Committee about 2 months before planned defense
• Should be scheduled at a mutually agreed on time by the student and Supervisory Committee
• Submit request to hold the defense, dissertation, and appropriate paperwork to Graduate Education at least 10 working days prior to scheduled defense date
• Register for a least 1 hour of appropriate graduate level credit during the semester in which the dissertation is defended
BIOLOGY AND SOCIETY Ph.D. (A concentration in BIOLOGY)

SUPERVISORY COMMITTEE**
The advisor must be appointed by the end of the second semester. The full advisory committee should be appointed at least one semester before a student defends the dissertation prospectus and is generally appointed not later than the end of the fourth semester.
- 5 members recommended. At least 4 members (advisor and at least 3 others) required.
- The advisor must be a member of the Biology and Society Graduate Faculty endorsed to chair such committees.
- Half or more of the committee members must be members of the Biology and Society Graduate Faculty.

PROGRAM OF STUDY**
Filed by the time the student has completed 50% of the required 84 hours
- Three different tracks of study are available:
  - History and Philosophy of Science (HPS)
  - Bioethics, Policy, and Law (BPL)
  - Ecology, Economics, and Ethics of Environment (4E)
  - With permission of the program students may also develop plans of study that incorporate elements of several tracks
- Required coursework
  - 12 credit hours of Core Courses. These seminars combine to provide broad, basic competency in Biology and Society.
  - 9 credit hours of Courses Related to the Life Sciences. This supporting coursework provides expertise in the particular research area. Any courses offered under one of the SOLS prefixes (BIO, ELS, EVO, HPS, MCB, MIC, and PLB) or any courses taught by faculty members in the Biology and Society group fulfill the requirement. In general, the courses should be 'x of science or biology' rather than just 'x.' (e.g. 'history of biology' rather than 'modern American history').
  - 39 credit hours of Research, Seminars, and Readings Courses, including additional research methods, as appropriate, and BIO/HPS 615: Biology and Society Lab
- At least 12 credit hours of BIO 792, Research
- Exactly 12 credit hours of BIO 799, Dissertation
- Sample Core Courses I: Bioethics, Policy, and Law (BPL) Track
  - 3 hours – Bioscience ethics
  - 3 hours – Science policy
  - 3 hours – Law (as related to science or technology)
  - 3 hours – BIO 620, Research Prospectus Writing, or BIO 614, Biometry

** The requirements for supervisory committees and plans of study for the Biology and Society PhD were updated as of August 2016. Any students who began the degree before that semester are subject to the previous requirements (consult your program director for questions).
• Sample Core Courses II: Ecology, Economics, and Ethics of the Environment (4E) Track
  • 3 hours – Ecology
  • 3 hours – Environmental or natural resource economics
  • 3 hours – Environmental ethics or environmental policy
  • 3 hours – BIO 620, Research Prospectus Writing, or BIO 614, Biometry
• Sample Core Courses III: History and Philosophy of Science (HPS) Track
  • 3 hours – History of science
  • 3 hours – Philosophy of science
  • 3 hours – Supporting coursework in history or philosophy (e.g. logic, decision theory, epistemology, environmental history)
  • 3 hours – BIO 620, Research Prospectus Writing, or BIO 614, Biometry
• 400, 500, 600 and 700 level classes only (ONLY 6 total credit hours of 400 level coursework are allowed)
• Students cannot use courses with grades of “D,” “E,” “I” (Incomplete), “X” (Audit), or “W” (Withdrawn) on a Plan of Study.
• Graduate students must maintain a minimum of 3.00 GPA to maintain satisfactory academic program and to graduate. The minimum 3.00 GPA must be maintained on both the Plan of Study GPA and the Graduate GPA.
• Of the 84 semester hours, at least 30 hours of the approved PhD program hours and 12 dissertation hours must be completed after admission to the current PhD program
• If a student has previous graduate level credits but has not received a graduate level degree, a maximum of 12 semester hours of credit completed before admission may be included on the program of study for the current doctoral degree with approval from Graduate Education.
• Students may not apply credit hours earned for a doctoral degree previously awarded at ASU or another institution towards their current ASU doctoral degree.
• The student may apply up to 30 semester hours from a previously awarded master’s degree toward their doctoral program of study.
• Ph.D. students must complete all program requirements within a ten-year period. The ten-year period starts with the semester and year of admission into the doctoral program. In addition, the student must take the final oral examination in defense of the dissertation within five years after passing the comprehensive examinations (which for Biology and Society programs are also the written dissertation prospectus and its defense).

COMPREHENSIVE EXAM AND DEFENSE OF THE DISSERTATION PROSPECTUS
The written dissertation prospectus is also the WRITTEN COMPREHENSIVE EXAM and the oral defense of the prospectus is also the ORAL COMPREHENSIVE EXAM – Typically completed early in the 4th semester. Must be completed by the end of the 6th semester.
• Students must meet with their committees to discuss a draft prospectus before formal defense of the prospectus.
• The written dissertation prospectus must contain, at a minimum, a description of the research question and its significance, a detailed work plan for data collection, analysis, and writing, and a complete bibliography.
• The goal of the written prospectus and its oral defense is for the committee to ascertain whether the candidate has an adequate grasp on the scholarly literature relevant to the project and is ready to start researching and writing the dissertation.
• Failure is considered final except under extraordinary circumstances

CANDIDACY
• Students are advanced to Candidacy after successfully completing all steps up to this point.

APPLY FOR GRADUATION
• See Graduate Education web site for details of this process. students.asu.edu/graduation

DISSERTATION and DEFENSE
Typically completed in the 8th-10th semester. Must be completed by the end of the 12th semester.
• Register for at least 1 hour of appropriate graduate level credit during the semester in which the thesis is defended
• Submit dissertation draft to the Committee about 2 months before planned defense
• The student and Supervisory Committee, taking into consideration the deadlines for graduation set by Graduate Education, should schedule defense at a mutually agreed on time. To allow for coordinating schedules, the student should start planning a defense date with the committee several months in advance of the defense.
• Submit request to hold the defense, dissertation, and appropriate paperwork to Graduate Education at least 10 working days prior to scheduled defense date
• The first part of the defense is a public presentation of the thesis research. After the public presentation and questions from the audience, the student is examined by their Supervisory Committee, which will judge whether to award the PhD.
ENVIRONMENTAL LIFE SCIENCES Ph.D.
The Ph.D. in ELS is a research degree, culminating in a dissertation, which must draw on multiple disciplinary perspectives.

SUPERVISORY COMMITTEE
Selected by end of 2nd semester
- The Supervisory Committee will be formed by the student in consultation with his/her advisor by the end of the second semester
- At least 4 (major professor and at least 3 others)
- Interdisciplinary (at least two ELS units need to be represented)
- Composition needs to be approved by the ELS Executive Committee

PROGRAM OF STUDY
Filed by end of 2nd semester
- Each student, with his or her main advisor, develops an interactive Program of Study (iPOS), which the student's Supervisory Committee approves and oversees
- 84 hours required, minimum GPA = 3.0
- 3 credit hr. of core course ELS 501 to be taken in the first semester.
- At least two courses (6 hr.) selected from different broad categories of:
  - Earth Sciences (e.g., geology, hydrology)
  - Organismal Biology (e.g., physiology and behavior)
  - Evolutionary Biology (e.g., population genetics)
  - Ecology/ecosystems/biogeochemistry
  - Sustainability/Social/Policy
- Successful completion of each course includes a synthetic paper in the subject area.
- A course (3 hr.) in quantitative/modeling/statistics
- 12 hr. of ELS799 dissertation hours
- The remaining credit hours should be filled either from the list of ELS electives (see ELS.asu.edu) or ELS omnibus courses (ELS 784, Doctoral Internship; ELS 790, Doctoral Reading and Conference). Except for ELS 799 Doctoral Dissertation, these omnibus courses are not required.
- No more than 6 credit hours of 400-level coursework can be included on Graduate student’s program of study.
- If a student has previous graduate level credits but has not received a graduate level degree, a maximum of 12 semester hours of credit completed before admission may be petitioned from Graduate Education to be included on the program of study for the current doctoral degree.
- Students may not apply credit hours earned for a doctoral degree previously awarded at ASU or another institution towards their current ASU doctoral degree.
- The student may apply up to 30 semester hours from a previously awarded master’s degree toward their doctoral program of study.

COMPREHENSIVE EXAM AND DEFENSE OF THE DISSERTATION PROSPECTUS
To be completed before the end of the 4th or 5th semester
• A Synthetic NSF-style RESEARCH PROPOSAL constitutes the WRITTEN COMPREHENSIVE EXAM.
  • A detailed description of the rationale and experimental plan of the dissertation, in NSF grant-style, should be submitted to the graduate committee at least two months before the scheduled comprehensive exam date. Students will be engaged in dissertation projects that explicitly involve interdisciplinary research and will be evaluated on it. The Dissertation Committee will judge how well the student’s research proposal is designed and justified. Within one month of receiving the dissertation prospectus, committee members should approve the prospectus as “ready to defend” and send any suggestions for prospectus approval to the student. All committee members should indicate that the prospectus is “ready to defend” before the exam is held.
  • The ORAL COMPREHENSIVE EXAM consists of the defense of the research proposal and subsequent questions from the supervisory committee on the broader context of the proposed research.
    • At the beginning of the exam, the student should give a 15-30 min presentation on their research plan. This part is open to a general audience of faculty as well as to the Supervisory Committee. Questions from the committee in closed session should then focus on the prospectus and the student’s general knowledge of their research and teaching discipline.
  • Failure is considered final except under extraordinary circumstances.

CANDIDACY
• Students are advanced to Candidacy after successfully completing all steps up to this point.

APPLY FOR GRADUATION
• See Graduate Education web site for details of this process. students.asu.edu/graduation

DISSERTATION and DEFENSE
To be completed by end of 8th or 10th semester.
• Convene with Supervisory Committee about 4 months before planned defense.
• Register for a least 1 hour of appropriate graduate level credit during the semester in which the dissertation is defended
• Students should submit their completed dissertation to their committee members at least one month prior to the scheduled exam.
• Students are strongly advised to work with their committee members, allowing them sufficient time to provide input on the chapters.
• The student and Supervisory Committee, taking into consideration the deadlines for graduation set by Graduate Education, should schedule defense at a mutually agreed on time.
• Submit request to hold the defense, dissertation, and appropriate paperwork to Graduate Education at least 10 working days prior to scheduled defense date.
• The first hour of the defense is a public presentation of the dissertation research. After the public defense, the student is examined by their Supervisory Committee, who will judge
whether the student’s performance in the oral and written exams is sufficient to award the PhD degree.
EVOLUTIONARY BIOLOGY Ph.D.
The Ph.D. in EVO is a research degree, culminating in a dissertation.

SUPERVISORY COMMITTEE
The Supervisory Committee should be formed by the student in consultation with his/her advisor by the end of the third semester

- At least 50% of the dissertation committee should be from the evolution graduate faculty (as per graduate college requirements)
- Composition needs to be approved by the EVO Executive Committee

PROGRAM OF STUDY
Filed by end of 3rd semester

- Each student, with his or her main advisor, develops an interactive Program of Study (iPOS), which the student's Supervisory Committee approves and oversees
- 84 hours required, minimum GPA = 3.0
- 5 credit hr. of core courses (EVO 601 and 610), to be taken in the first and second semesters
- At least three courses (10 hr.) selected from approved EVO elective courses
- BIO 614: Biometry, or a course (3 hr.) in quantitative/modeling/statistics, approved by the Supervisory Committee, generally to be taken in the first four semesters.
- 12 hr. of EVO799 dissertation hours
- The remaining credit hours should be filled either from the list of EVO electives or EVO omnibus courses (EVO 784, Doctoral Internship; EVO 790, Doctoral Reading and Conference). These elective courses should be chosen in consultation with the dissertation advisor and doctoral dissertation committee. It is generally expected that the elective courses will be completed by the end of the third year (6th semester). Except for EVO 799 Doctoral Dissertation, these omnibus courses are not required.
- No more than 6 credit hours of 400-level coursework can be included on graduate student’s program of study.
- If a student has previous graduate level credits but has not received a graduate level degree, a maximum of 12 semester hours of credit completed before admission may be petitioned from Graduate Education to be included on the program of study for the current doctoral degree.
- Students may not apply credit hours earned for a doctoral degree previously awarded at ASU or another institution towards their current ASU doctoral degree.
- The student may apply up to 30 semester hours from a previously awarded master’s degree toward their doctoral program of study.

COMPREHENSIVE EXAM AND DEFENSE OF THE DISSERTATION PROSPECTUS
To be completed by the end of the 6th semester

- A Synthetic NSF-style RESEARCH PROPOSAL constitutes the WRITTEN COMPREHENSIVE EXAM.
  - A detailed description of the rationale and experimental plan of the dissertation, in NSF grant style, should be submitted to the graduate committee at least two months before the scheduled comprehensive exam date. The dissertation committee will judge how well the student’s research proposal is designed and justified. Within one month of receiving the dissertation prospectus, committee members should approve
the prospectus as “ready to defend” and send any suggestions for prospectus approval to the student. All committee members should indicate that the prospectus is “ready to defend” before the exam is held.

- The ORAL COMPREHENSIVE EXAM consists of the defense of the research proposal and subsequent questions from the Supervisory Committee on the broader context of the proposed research. This exam is open to the Supervisory Committee only. At the beginning of the exam, the student should give a 20-25 min presentation on their research plan. Questions from the committee should then focus on the prospectus and the student’s general knowledge of their research and teaching discipline.
- Failure is considered final except under extraordinary circumstances.

CANDIDACY
- Students are advanced to Candidacy after successfully completing all steps up to this point.

APPLY FOR GRADUATION
- See Graduate Education web site for details of this process. students.asu.edu/graduation

DISSERTATION and DEFENSE
To be completed by end of 10th semester.
- Register for at least 1 hour of appropriate graduate level credit during the semester in which the dissertation is defended
- Students should submit their completed dissertation to their committee members at least one month prior to the scheduled exam.
- Students are strongly advised to work with their committee members, allowing them sufficient time to provide input on the chapters.
- The student and Supervisory Committee, taking into consideration the deadlines for graduation set by Graduate Education, should schedule defense at a mutually agreed on time.
- Submit request to hold the defense, dissertation, and appropriate paperwork to Graduate Education at least 10 working days prior to scheduled defense date.
- The first hour of the defense is a public presentation of the dissertation research. After the public defense, the Supervisory Committee examines the student and judges whether the student’s performance in the oral and written exams is sufficient to award the PhD degree.
HISTORY AND PHILOSOPHY OF SCIENCE Ph.D.

SUPERVISORY COMMITTEE
The advisor must be appointed by the end of the second semester. The full advisory committee should be appointed at least one semester before a student defends the dissertation prospectus and is generally appointed not later than the end of the fourth semester.

- At least 5 (advisor and at least 4 others)
- The advisor must be a member of the History and Philosophy of Science Graduate Faculty endorsed to chair such committees.
- Half or more of the committee members must be members of the History and Philosophy of Science Graduate Faculty.

PROGRAM OF STUDY
Filed by the time the student has completed 50% of the required 84 hours

Required coursework
- HPS 620, Research Prospectus Writing—3 credits
- HPS 615, Biology and Society Lab—3 credits
- Approved courses in history of science—6 credits
- Approved courses in philosophy of science—6 credits
- Approved course(s) in history of philosophy—3 credits
- Approved course(s) in value theory—3 credits
- Approved course(s) in advanced logic or equivalent—3 credits
- Approved courses in philosophy, history, or the life sciences—9 credits
- Electives and research—24 credits
- HPS 792, Research—at least 12 credits
- HPS 799, Dissertation—exactly 12 credits

- 400, 500, 600, and 700 level classes only (ONLY 6 total credit hours of 400 level coursework are allowed)

- Students cannot use courses with grades of “D,” “E,” “I” (Incomplete), “X” (Audit), or “W” (Withdrawn) on a Plan of Study.
- Graduate students must maintain a minimum of 3.00 GPA to maintain satisfactory academic program and to graduate. The minimum 3.00 GPA must be maintained on both the Plan of Study GPA and the Graduate GPA.
- Of the 84 semester hours, at least 30 hours of the approved PhD program hours and 12 dissertation hours must be completed after admission to the current PhD program
- If a student has previous graduate level credits but has not received a graduate level degree, a maximum of 12 semester hours of credit completed before admission may be included on the program of study for the current doctoral degree with approval from Graduate Education.
- Students may not apply credit hours earned for a doctoral degree previously awarded at ASU or another institution towards their current ASU doctoral degree.
- The student may apply up to 30 semester hours from a previously awarded master’s degree toward their doctoral program of study.
- Ph.D. students must complete all program requirements within a ten-year period. The ten-year period starts with the semester and year of admission into the doctoral program.
addition, the student must take the final oral examination in defense of the dissertation within five years after passing the comprehensive examinations (which for this program are also the written dissertation prospectus and its defense).

COMPREHENSIVE EXAM AND DEFENSE OF THE DISSERTATION PROSPECTUS
The written dissertation prospectus is also the WRITTEN COMPREHENSIVE EXAM and the oral defense of the prospectus is also the ORAL COMPREHENSIVE EXAM – Typically completed early in the 4th semester. Must be completed by the end of the 6th semester.

• Students must meet with their committees to discuss a draft prospectus before formal defense of the prospectus.
• The written dissertation prospectus must contain, at a minimum, a description of the research question and its significance, a detailed work plan for data collection, analysis, and writing, and a complete bibliography.
• The goal of the written prospectus and its oral defense is for the committee to ascertain whether the candidate has an adequate grasp on the scholarly literature relevant to the project and is ready to start researching and writing the dissertation
• Failure is considered final except under extraordinary circumstances

CANDIDACY
• Students are advanced to Candidacy after successfully completing steps 1 – 3

APPLY FOR GRADUATION
• See Graduate Education web site for details of this process. students.asu.edu/graduation

DISSERTATION and DEFENSE
Typically completed in the 8th-10th semester. Must be completed by the end of the 12th semester.
• Register for a least 1 hour of appropriate graduate level credit during the semester in which the dissertation is defended
• Submit dissertation draft to the Committee about 2 months before planned defense
• The student and Supervisory Committee, taking into consideration the deadlines for graduation set by Graduate Education, should schedule defense at a mutually agreed on time. To allow for coordinating schedules, the student should start planning a defense date with the committee several months in advance of the defense.
• Submit request to hold the defense, dissertation, and appropriate paperwork to Graduate Education at least 10 working days prior to scheduled defense date
• The first part of the defense is a public presentation of the thesis research. After the public presentation and questions from the audience, the student is examined by their Supervisory Committee, which will judge whether to award the PhD.
MICROBIOLOGY Ph.D.

SUPERVISORY COMMITTEE
• Select a lab no later than the end of the 2nd semester following admission
• Select the Supervisory Committee by the 3rd semester
• Hold first Supervisory Committee meeting by beginning of 4th semester

Committee
• At least 4 (major professor and at least 3 others)
• Chair or Co-Chair must be a School of Life Sciences (SOLS) Microbiology faculty member.
• Supervisory Committee members must be approved members of the Graduate Faculty.
• If a student is doing research with a non-SOLS faculty member, a SOLS Microbiology faculty member must serve as Co-Chair of the Supervisory Committee.

PROGRAM OF STUDY
File by the end of the semester after choosing a lab.
• 84 credit hours required
• Required Course:
• Fall Semester
• MIC 501 – Foundations in Microbiology (3 credits)
• A minimum of 18 graduate level course work credits is required.
• Exactly 12 MIC 799 Dissertation credits after admittance to Candidacy
• The remaining credits are comprised of MIC 792 Research, seminars and journal clubs.
• 500, 600 and 700 level classes only (no more than 6 credits of 400 level classes can be included if recommended and justified by the Supervisory Committee or by the Supervisor and/or Director)
• Of the 84 semester hours, at least 30 hours of the approved PhD program hours and 12 dissertation hours must be completed after admission to the current PhD program
• If a student has previous graduate level credits but has not received a graduate level degree, a maximum of 12 semester hours of credit completed before admission may be included on the program of study for the current doctoral degree.
• Students may not apply credit hours earned for a doctoral degree previously awarded at ASU or another institution towards their current ASU doctoral degree.
• The student may apply up to 30 semester hours from a previously awarded master’s degree toward their doctoral program of study.

RESEARCH PROPOSAL
Complete by end of 2nd semester for students with MS, end of 4th semester for students with BS
• Introduction (brief literature review, statement of purpose or objective)
• Expected significance of work
• Plan of work (methods and approaches)
• Bibliography
• 10 double-spaced typewritten pages
• Written proposal with oral presentation to be completed in meeting with Supervisory Committee
• Approved copy of proposal becomes part of student’s academic file in SOLS Graduate Office

WRITTEN AND ORAL COMPREHENSIVE EXAMS
Complete by end of 2nd semester for students with MS, end of 4th semester for students with BS
• Written exam formulated by faculty and graded by the student’s committee; usually involves 2 full days
• Oral exam scheduled within 2 weeks following the written exam and administered by student’s committee

CANDIDACY
• Students are advanced to Candidacy after successfully completing all steps up to this point.

APPLY FOR GRADUATION
• See Graduate Education web site for details of this process. students.asu.edu/graduation

DISSERTATION and DEFENSE
Complete by end of 8th semester for students with MS or 10th semester for students with BS
• Consists of a 1 hour public seminar followed by an oral examination administered by the Supervisory Committee
• Convene with Supervisory Committee about 4 months before planned defense
• Present dissertation data and get approval to prepare the final written document
• Submit dissertation draft to the Committee about 2 months before planned defense
• Should be scheduled at a mutually agreed on time by the student and Supervisory Committee
• Submit request to hold the defense, dissertation, and appropriate paperwork to Graduate Education at least 10 working days prior to scheduled defense date
• Register for a least 1 hour of appropriate graduate level credit during the semester in which the dissertation is defended
MOLECULAR AND CELLULAR BIOLOGY PhD

SUPERVISORY COMMITTEE
Selected by end of 2nd semester
• At least 4 members (major professor and at least 3 others)
• Chair or Co-Chair must be a core ASU MCB chair-eligible faculty member
• Minimum of 2 members must be MCB chair-eligible faculty
• If student is doing research in a non-ASU laboratory, then he/she needs an ASU based MCB chair eligible co-chair.

PROGRAM OF STUDY
Filed by end of 2nd semester
• 84 semester hours required
• Required Courses:
  o MCB 701 is required every semester
  o Core Curriculum taken during first year

  Fall semester
  o MCB 555, 6 credit hours – team taught – membrane biology, neurobiology, signal transduction, bioimaging and molecular-based disease
  o Research, 3-6 credits
  o BIO 543 Molecular Genetics or equivalent genetics course if an equivalent course was not previously taken, 3 credits (Committee can approve substitution with another graduate level course). *TAs may want to defer until Year 2.*

  Spring semester
  o MCB 556, 3 credits – gene regulation, developmental biology, microbiology and immunology; reading the scientific literature and scientific writing and oral presentation.
  o Elective, 3 credits
  o BIO 610 Responsible Conduct of Research 1 credit, offered spring. Take in Year 1 or 2.

• MCB 792 Research hours taken in all years
• Research seminars and journal clubs taken in all years
• Exactly 12 MCB 799 Dissertation hours
• 400, 500, 600 and 700 level coursework only
• Of the 84 semester hours, at least 30 hours of the approved PhD program hours and 12 dissertation hours must be completed after admission to the current PhD program
• If a student has previous graduate level credits, but has not received a graduate level degree, a maximum of 12 semester hours of credit completed before admission may be included on the program of study for the current doctoral degree.
• Students may not apply credit hours earned for a doctoral degree previously awarded at ASU or another institution towards their current ASU doctoral degree.
• The student may apply up to 30 semester hours from a previously awarded master’s degree toward their doctoral program of study.

**COMPREHENSIVE EXAM**

**PAPER & ORAL PRESENTATION** – complete by end of second year

• Student prepares two abstracts of two potential proposals.
• The abstracts should be submitted to the Chair of the Comprehensive Exam Committee, who is a Supervisory Committee member but not the student's main mentor/research advisor.
• The Exam Committee will select one of the abstracts for the student to prepare for Written Comprehensive Exam suggested time frame is within 4 weeks. The Oral Exam should take place after that (suggested time frame within 2 weeks).
• Written research proposal should be in NIH NRSA 7-page format based on a hypothesis driven problem that is not an ongoing project in the laboratory.
• For eligibility for requesting a Masters In Passing, the student must write a dissertation prospectus on their research and the Masters In Passing can be approved upon successful completion of the these requirements.

**CANDIDACY**

• Students are advanced to Candidacy after successfully completing steps 1 – 3

**DISSERTATION RESEARCH PROPOSAL (non-pass/fail)**

Completed by end of third year unless submitted with the Masters in Passing

• Plans for dissertation research should be presented at a Supervisory Committee during the third year.
• A brief written description of the dissertation research plan should be distributed to the committee and orally presented at the committee meeting.

**APPLY FOR GRADUATION**

• See Graduate Education web site for details of this process. [students.asu.edu/graduation](http://students.asu.edu/graduation)

**DISSERTATION and DEFENSE**

Completed by end of 7th semester for students with MS, 9th semester for student’s with BS.

• Consists of a 1-hour public lecture followed by an oral examination administered by the Supervisory Committee. Convene with Supervisory Committee about 4 months before planned defense
• Present dissertation data and get approval to prepare the final written document
• Submit dissertation draft to the Committee about 2 months before planned defense
• Submit request to hold the defense, dissertation, and appropriate paperwork to Graduate Education at least 10 working days prior to scheduled defense date
• Register for a least 1 hour of appropriate graduate level credit in the semester that the thesis is defended
NEUROSCIENCE Ph.D.

ADVISORY COMMITTEE
Must be selected prior to the beginning of the 2nd year to maintain satisfactory progress.
- There will be one chair (the mentor), or two co-chairs on the committee and the balance will be committee members.
- The mentor must be endorsed to chair according to established criteria in place in Graduate Education. Students who select a mentor who is either a non-ASU or an ASU adjunct faculty member must also have an ASU faculty member serve as a Co-Chair of their Advisory Committee. The Director of the Program can serve in this capacity if desired.
- The committee will be formed by the student in consultation with his/her mentor prior to the beginning of 2nd year.
- The committee is to consist of a minimum of four program faculty members.
- Students must meet with their advisory committee at least once per year to receive feedback on their progress and research. Download and print the Advisory Committee Meeting Form posted on Blackboard. This form verifies the date that the committee meeting took place and includes a brief statement of feedback from the committee regarding the student’s progress. The Committee Chair(s) must provide a statement summarizing the student’s progress during the previous year and must sign the form. Return the signed form to the Program Administrative Assistant.
- Extensions for selecting the Graduate Advisory Committee may be granted under the extenuating circumstances that a student does not choose either of their two rotation supervisors as their mentor. In this case, students are expected to complete a third rotation and to form their committee as soon as possible after completing their third rotation.

PROGRAM OF STUDY (iPOS)
Filed prior to the beginning of the 2nd year
- In consultation with their mentor and committee, students will be able to customize the program of study to suit their particular interests and goals
- Minimum of 84 hours required
  - 12 hours of dissertation
  - Research hours (each semester)
  - 10 hours of the formal course credits will be comprised of the Core Course Sequence (Systems Neuroscience – 4 hours, Cellular and Molecular Neuroscience – 6 hours), which must be completed before the oral and written qualifying exams are taken
  - Minimally 3 credit hours of Journal Club
  - Minimally 3 credit hours of Neuroscience Research Seminar
  - Students must enroll in either Journal Club or Research Seminar each spring and fall semester they are in the program.
  - 4 hours of Professional Development courses
  - Additional credits will be comprised of specialized disciplinary courses chosen in consultation with the mentor and advisory committee
- No more than 6 credit hours of 400-level coursework can be included on a graduate student’s program of study
• If a student has previous graduate level credits but has not received a graduate level degree, a maximum of 12 semester hours of credit completed before admission may be petitioned from Graduate Education to be included on the program of study for the current doctoral degree. These credit hours cannot include dissertation or research hours.

• Students may not apply credit hours earned for a doctoral degree previously awarded at ASU or another institution towards their current ASU doctoral degree.

• The student may apply up to 30 semester hours from a previously awarded master’s degree toward their doctoral program of study.

• Minimum GPA: 3.0

• ‘B’ grade or better in core courses and a ‘C’ grade or better in all other courses on program of study.

• Fellowship students (first year) must have a minimum of 9 credit hours/semester:
  • Fall semester
    • Cellular Molecular (6 hours)
    • Journal Club (1 hour)
    • Research (2 hours)
  • Spring semester
    • Human Systems Neuroscience (4 hours) – NEU 556
    • Journal Club (1 hour) – NEU 558
    • Research – NEU 792
    • Ethics Course
    • (Depending on number of credit hours for research and for the ethics course an additional class may be added)

• Laboratory rotations (first year):
  • Rotations to be planned by the student and their mentor or the Program Director if mentor has not yet been determined.
  • Minimum of 2 rotations for a minimum of 7 weeks each within the first year.
  • Students are strongly encouraged to perform their rotations at more than one of the units that participate in this interdisciplinary program (SOLS, Math, Psychology, Biomedical Engineering, Speech and Hearing Sciences, Barrow Neurological Institute, T-GEN, or the University of Arizona College of Medicine – Phoenix)
  • At the end of each rotation, the student will write a short report describing the rotation. The report is to be signed by the student and the laboratory leader in whose laboratory the rotation was performed. The form for rotation report is available on Blackboard and must be returned to Program Administrative Assistant.

• Teaching Assistants (TAs) and Research Assistants (RAs) must have a minimum of 6 credit hours and a maximum of 18 credit hours and are encouraged to take at least 12 credit hours.

• Students are required to prepare an annual progress report using the form available on the Program’s Blackboard site. Students must return their progress report along with a copy of their CV to their mentor and to the Program Administrative Assistant, who will then post the report on Blackboard for review by the Program’s Executive Committee. The report will include:
  • Listing of course work completed and grades achieved
  • Listing of laboratory rotations (if applicable)
• Listing of academic milestones achieved in that year
• List of milestones for the coming year
• Any other information that is pertinent to the student’s progress (papers published; attendance and presentations at profession meetings, etc.)

QUALIFYING EXAM AND DEFENSE OF THE DISSERTATION PROSPECTUS
Typically completed during the 2nd year and must be completed prior to the start of the 4th year in order to maintain satisfactory progress in the program
• Must have an approved POS and committee on file with the Office of Graduate Education.
• Advancement to candidacy will depend on successfully passing the qualifying exam that includes a written proposal of the dissertation research, take-home exam questions formulated by the committee, and an oral examination. Students are expected to have a broad understanding of areas that pertain to their research, in-depth knowledge of the literature that directly relates to their research, and the ability to communicate and formulate ideas about research.
  o The exam will begin with the student submitting his/her dissertation prospectus to each committee member in the form of a pre-doctoral NIH (NRSA) or NSF (DDIG) proposal. The prospectus will be based on the student’s remaining two to three years of research and training. Proposed hypotheses should be backed up with preliminary results obtained up to that point. Individual committees have the option to require an expanded background section than that allowed in the pre-doctoral NIH and NSF proposals.
  o Within ~1 week of receiving the prospectus, each committee member will submit 1-2 exam questions to the committee chair, who will then compile the questions to comprise the take home exam. Students will chose to answers 2 of the questions in written form to be turned in to the committee chair within the following day or two (i.e., ~24-48 h after receiving the questions). The answers to both questions should be 6-10 pages total, using 11 point Arial font double-spaced and including illustrations if required or desired.
  o The oral portion of the exam will take place within 1-2 weeks of completing the written portion of the exam. Committee members will use the prospectus and the answers to the written exam questions as a springboard for questioning students about their proposal and related issues. The oral exam typically proceeds with the student presenting their prospectus and committee members interjecting with questions, followed by a discussion of the implications of the work in the broader scientific field.
  o The evaluation of the exam will follow immediately after the oral portion of the exam and will be based on overall performance on the three exam components (proposal, take home exam, oral exam).
• Students who pass advance to candidacy. At the discretion of the Committee, students may be required to address minor deficiencies in order to receive a pass. Failure is considered final.
CANDIDACY
- Students are advanced to Candidacy after successfully completing qualifying exam and Defense of the Dissertation Prospectus

APPLY FOR GRADUATION
- See Graduate Education web site for details of this process. students.asu.edu/graduation

DISSERTATION and DEFENSE
Typically completed within 5-6 years, but must be completed by the summer after the 7th year. Students who fail to meet this deadline will automatically be on academic probation and may be recommended for removal from the program.
- Under extenuating circumstances, the Office of Graduate Education requirements may apply which require students to defend the dissertation within five years after passing the qualifying exam or within 10 years of entering the program, whichever comes first.
- Must achieve candidacy
- Convene with advisory committee about 4 months before planned defense
- Register for a least 1 hour of appropriate graduate level credit during the semester in which the dissertation is defended
- Students should submit their completed dissertation to their committee members at least one month prior to the scheduled exam
- Students are strongly advised to work with their committee members, allowing them sufficient time to provide input on the chapters
- Report exam results to the Office of Graduate Education before scheduling the date for the defense
- Defense should be scheduled at a mutually agreed on time by the student and advisory committee, taking into consideration the deadlines for graduation set by the Office of Graduate Education
- Submit request to hold the defense, dissertation, and appropriate paperwork to the Office of Graduate Education at least 10 working days prior to scheduled defense date
- The first hour of the defense is a public presentation of the dissertation research. After the public defense, the advisory committee examines the student and judges whether the student’s performance in the oral and written exams are sufficient to award the PhD degree.
BIOLOGY M.S.

SUPERVISORY COMMITTEE
Selected by end of 1st semester
- Consists of the major professor and 2 other faculty members

PROGRAM OF STUDY
Filed by end of 1st semester
- 30 hours total required
- Exactly 6 credit hours of BIO 599 Thesis
- 1 credit hour of participatory seminar appropriate to area of study (XXX 591 or 791)
- 8 - 14 credit hours in “special courses” such as Research (BIO 592) and Readings and Conference (BIO 590)
- 9 - 15 credit hours of regular coursework and additional seminars
- 400, 500, 600 and 700 level coursework only

RESEARCH PROPOSAL
Completed by middle of 2nd semester
- Submitted as a part of the Program of Study
- Discussed with and approved by Supervisory Committee

APPLY FOR GRADUATION
- See Graduate Education web site for details of this process.
  students.asu.edu/graduation

THESIS and DEFENSE
Completed by end of 4th semester
- Consists of a 1 hour public lecture followed by an oral examination administered by the Supervisory Committee
- Convene with Supervisory Committee about 4 months before planned defense
- Present thesis data and get approval to prepare the final written thesis
- Submit thesis draft to the Committee about 2 months before planned defense
- Should be scheduled at a mutually agreed on time by the student and Supervisory Committee
- Submit request to hold the defense, thesis, and appropriate paperwork to Graduate Education at least 10 working days prior to scheduled defense date
- Register for a least 1 hour of appropriate graduate level credit during the semester in which the thesis is defended
BIOLOGY AND SOCIETY M.S. (A concentration in BIOLOGY)

SUPERVISORY COMMITTEE
The advisor must be appointed by the end of the first semester. The full advisory committee should be appointed in the second semester.
- At least 3 members (advisor and at least 2 others)
- The advisor must be a member of the Biology and Society Graduate Faculty endorsed to chair.
- Half or more of the committee members must be members of the Biology and Society Graduate Faculty.

PROGRAM OF STUDY
Filed by the time the student has completed 50% of the required 30 hours
- Three different tracks of study are available:
  - History and Philosophy of Science (HPS)
  - Bioethics, Policy, and Law (BPL)
  - Ecology, Economics, and Ethics of Environment (4E)
  - With permission of the program students may also develop plans of study that incorporate elements of several tracks
- Required coursework
  - 9 credit hours of Core Courses. These seminars combine to provide broad, basic competency in Biology and Society.
  - 9 credit hours of Courses Related to the Life Sciences. This supporting coursework provides expertise in the particular research area. Any courses offered under one of the SOLS prefixes (BIO, ELS, EVO, HPS, MCB, MIC, and PLB) or any courses taught by faculty members in the Biology and Society group fulfill the requirement. In general, the courses should be 'x of science or biology' rather than just 'x.' (e.g. ‘history of biology’ rather than ‘modern American history’).
  - At least 6 credit hours of BIO 592, Research
  - Exactly 6 credit hours of BIO 599, Thesis
- Sample Core Courses I: Bioethics, Policy, and Law (BPL) Track
  - 3 hours – Bioscience ethics
  - 3 hours – Science policy
  - 3 hours – Law (as related to science or technology)
- Sample Core Courses II: Ecology, Economics, and Ethics of the Environment (4E) Track
  - 3 hours – Ecology
  - 3 hours – Environmental or natural resource economics
  - 3 hours – Environmental ethics or environmental policy
- Sample Core Courses III: History and Philosophy of Science (HPS) Track
  - 3 hours – History of science
  - 3 hours – Philosophy of science
  - 3 hours – Supporting coursework in history or philosophy (e.g. logic, decision theory, epistemology, environmental history)
• 400, 500, 600 and 700 level classes only (ONLY 6 total credit hours of 400 level coursework are allowed)
• Students cannot use courses with grades of “D,” “E,” “I” (Incomplete), “X” (Audit), or “W” (Withdrawn) on a Plan of Study.
• Graduate students must maintain a minimum of 3.00 GPA to maintain satisfactory academic program and to graduate. The minimum 3.00 GPA must be maintained on both the Plan of Study GPA and the Graduate GPA.
• If a student has previous graduate level credits but has not received a graduate level degree, a maximum of 12 semester hours of credit completed before admission may be included on the program of study for the current doctoral degree with approval from Graduate Education.
• Master’s degree students must complete all program requirements within a six-year period. The six-year period starts with semester and year of admission into the master’s program.

MASTER’S THESIS PROSPECTUS
Normally completed before the beginning of the 3rd semester.
• The WRITTEN THESIS PROSPECTUS must contain, at a minimum, a description of the research question and its significance; a detailed work plan for data collection, analysis, and writing; and a complete bibliography. See the Biology and Society Tip Sheets for additional information.
• The goal of the prospectus is for the committee to be able to ascertain whether the candidate is ready to start researching and writing the thesis. The candidate must have an answerable research question, a full knowledge of sources, and plans for conducting the research and writing the thesis that provides the committee milestones to assess.
• The student’s committee may elect to have the student orally present and defend the prospectus, but defense of the master’s thesis prospectus is not required.

APPLY FOR GRADUATION
• See Graduate Education web site for details of this process.
  students.asu.edu/graduation

THESIS and DEFENSE
Normally completed by the end of the 4th semester.
• Register for at least 1 hour of appropriate graduate level credit during the semester in which the thesis is defended
• Submit dissertation draft to the Committee about 2 months before planned defense
• The student and Supervisory Committee, taking into consideration the deadlines for graduation set by Graduate Education, should schedule defense at a mutually agreed on time. To allow for coordinating schedules, the student should start planning a defense date with the committee several months in advance of the defense.
• Submit request to hold the defense, thesis, and appropriate paperwork to Graduate Education at least 10 working days prior to scheduled defense date.
MICROBIOLOGY M.S.

SUPERVISORY COMMITTEE
Select by end of 1st semester
- At least 3 members (major professor and 2 other faculty members)
- Chair or Co-Chair must be a School of Life Sciences (SOLS) Microbiology faculty member
- Supervisory Committee members must be approved members of the Graduate Faculty
- If a student is doing research with a non-SOLS mentor, they must have a SOLS Microbiology faculty member serve as co-chair of the Supervisory Committee

PROGRAM OF STUDY
File by end of 2nd semester in 1st year
Minimum of 30 credit hours
400, 500, 600 and 700 level classes only (no more than 6 credits of 400 level classes)
Required Courses:
- MIC 501 (Foundations of Microbiology) (3 credits) must be taken during first semester.
- Minimum of additional 9 credits total of regular course work appropriate to the research area and approved by the Supervisory Committee
- Research seminars and journal clubs taken in both years (up to 3 credits)
- MIC 599 Thesis (exactly 6 credits) must be taken during last semester of the second year
- MIC 592 Research taken each of first three semesters (9 credits total)

Example (for fall start of a two-year program; a one year MS has an accelerated timeline):
Fall semester – 1st year
- MIC 591 (3 credits)
- Elective course appropriate to the research area and approved by the Supervisory Committee (3 credits)
- Research seminars and/or journal club (1 credit)
- MIC 592 Research (3 credits)
Spring semester – 1st year
- Elective courses (3-6 credits)
- Research seminars and/or journal club (1 credit)
- MIC 592 Research (3 credits)
Fall semester – 2nd year
- Elective course (0-3 credits)
- Research seminars and/or journal club (1 credit)
- MIC 592 Research (3 credits)
Spring semester – 2nd year
- MIC 599 Thesis (exactly 6 credits)
RESEARCH PROPOSAL
• Complete by end of 2nd semester

APPLY FOR GRADUATION
• See Graduate Education web site for details of this process. students.asu.edu/graduation

THESIS
Complete by the end of 4th semester, but not later than end of 5th semester
• Consists of a 1 hour public lecture followed by an oral examination administered by the Supervisory Committee
• Convene with Supervisory Committee about 4 months before planned defense
• Present thesis data and get approval to prepare the final written thesis
• Submit thesis draft to the Committee about 2 months before planned defense
• Should be scheduled at a mutually agreed on time by the student and Supervisory Committee
• Submit request to hold the defense, thesis, and appropriate paperwork to Graduate Education at least 10 working days prior to scheduled defense date
• Register for a least 1 hour of appropriate graduate level credit during the semester in which the thesis is defended
**MOLECULAR AND CELLULAR BIOLOGY M.S.**

**SUPERVISORY COMMITTEE**
Selected by end of 1st semester
- At least 3 members (major professor and 2 other faculty members)
- Chair or Co-Chair must be from ASU MCB chair-eligible faculty member
  If student is doing research in a non-ASU laboratory, then he/she needs an ASU based MCB chair eligible co-chair.

**PROGRAM OF STUDY**
- Filed by end of 2nd semester
- Minimum of 30 credit hours
  **Required Courses:**
  - MCB 501 must be taken every semester
  - Core Curriculum taken during first year
  - Fall semester
    MCB 555, 6 credit hours – team taught – membrane biology, neurobiology, signal transduction, bioimaging and molecular-based disease
    - Research, 3-6 credits
    - BIO 543 Molecular Genetics or equivalent genetics course if an equivalent course was not previously taken, 3 credits (Committee can approve substitution with another graduate level course). *TAs may want to defer until Year 2.*
  - Spring semester
    - MCB 556, 3 credits – gene regulation, developmental biology, microbiology and immunology; reading the scientific literature and scientific writing and oral presentation.
    - Elective, 3 credits
    - MCB 592 Research hours taken in all years
    - Research seminars and journal clubs taken in all years
    - Exactly 6 credit hours of MCB 599 Thesis
    - 400, 500, 600 and 700 level coursework only (no more than 6 credits of 400 level classes)

**RESEARCH PROPOSAL**
- Completed by end of 2nd semester

**APPLY FOR GRADUATION**
- See Graduate Education web site for details of this process. [students.asu.edu/graduation](students.asu.edu/graduation)

**THESIS and DEFENSE**
Completed by end of 5th semester
- Consists of a 1 hour public lecture followed by an oral examination administered by the Supervisory Committee
• Convene with Supervisory Committee about 4 months before planned defense
• Present thesis data and get approval to prepare the final written thesis
• Submit thesis draft to the Committee about 2 months before planned defense
• Should be scheduled at a mutually agreed on time by the student and Supervisory Committee
• Submit request to hold the defense, thesis, and appropriate paperwork to Graduate Education at least 10 working days prior to scheduled defense date
• Register for a least 1 hour of appropriate graduate level credit during the semester in which the thesis is defended
PLANT BIOLOGY AND CONSERVATION M.S.

SUPERVISORY COMMITTEE
Selected by end of 1st semester
Consists of the major professor and 2 other faculty members or non-academic biologists. Students are encouraged to seek out members of the Desert Botanical Garden research and conservation staff as potential committee members (see http://www.dbg.org/research-conservation/research-conservation-staff)

PROGRAM OF STUDY
Filed by end of 1st semester
- 30 hours total required
- Exactly 6 credit hours of PLB 599 Thesis
- 3 credit hour of PLB 502 (only taught every other fall)
- 1 credit hour of participatory seminar appropriate to area of study (XXX 591 or 791)
- At Least 3 credit hours of Research (PLB 592)
- Up to 14 credit hours in “special courses” such as Fieldwork (PLB 583), Internship (PLB 584), Special Topics (PLB598, BIO 598) and Readings and Conference (PLB 590)
- 9 - 15 credit hours of regular coursework and additional seminars
- 400, 500, 600 and 700 level coursework only (no more than 6 credits hours of 400 level coursework)

RESEARCH PROPOSAL
Completed by middle of 2nd semester
- Submitted as a part of the Program of Study
- Discussed with and approved by Supervisory Committee

APPLY FOR GRADUATION
- See Graduate Education web site for details of this process. students.asu.edu/graduation

THESIS and DEFENSE
Completed by end of 4th semester
- Consists of a 1 hour public lecture followed by an oral examination administered by the Supervisory Committee
- Convene with Supervisory Committee about 4 months before planned defense
- Present thesis data and get approval to prepare the final written thesis
- Submit thesis draft to the Committee about 2 months before planned defense
- Should be scheduled at a mutually agreed on time by the student and Supervisory Committee
- Submit request to hold the defense, thesis, and appropriate paperwork to Graduate Education at least 10 working days prior to scheduled defense date
- Register for a least 1 hour of appropriate graduate level credit during the semester in which the thesis is defended