

Department of Biology - Graduate Student Policy

1. Degrees and Requirements

a. Degree types.

M.S. (report or thesis) and Ph.D. in Integrative Biology, and M.S. (report or thesis) and Ph.D. in Plant Biology

b. Requirements.

Requirements for completing the M.S. or Ph.D. degree in Integrative Biology can be found in Appendix I and II, while the requirements for the M.S. or Ph.D. degree in Plant Biology can be found in Appendices III and IV.

2. Courses, academic calendar. Graduate courses offered, semester schedules, and academic calendars can be found on the Registrar's Office website¹.

3. Advisement of Students. Faculty members in the Department may serve as graduate advisors as long as they hold appropriate status on the University Graduate Faculty, as defined by the Graduate College's policy on Graduate Faculty Appointment and Renewals². Adjunct faculty may serve as the advisor for a graduate student in the Department, but must be approved on a case-by-case basis by the Graduate Committee, and they must hold appropriate status on the University Graduate Faculty.

4. Application

a. Admission Requirements

Degree: B.A., B.S., or equivalent from an accredited college or university.

Course Work: Forty (40) semester hours (or equivalent) in upper division Science, Technology, Engineering and Mathematics (STEM) courses. Students deficient in admission requirements may be required to complete additional courses.

Grade-Point Average (GPA): A cumulative GPA of 3.00 or better in all undergraduate coursework is required for unconditional admission. A student with a cumulative GPA less than 3.00 may be considered for admission on academic probation. This requires that a student obtain an overall GPA of 3.0 or better in their first 9 hours of graduate coursework after which they are removed from academic probation. Students failing to meet this requirement may be dismissed from the graduate program.

Graduate Record Examination (GRE) scores: Submission of GRE scores is not required for admission to the graduate programs.

Graduate College and University Requirements: Applicants must also be compliant with any other current Graduate College and University requirements for admission.

¹ <http://registrar.okstate.edu/>

² <https://gradcollege.okstate.edu/resources/graduate-faculty-information.html>

International Students: All Graduate College policies must be followed pertaining to international students as detailed on the Graduate College website³.

b. Procedures

Students requesting admission into the graduate programs in the Department of Biology are expected to contact faculty member(s) with whom they might like to work to determine if they are accepting new graduate students. Students are not admitted into a Biology Graduate Program without a faculty advisor willing to accept them.

To be admitted, students must complete the online application and submit the necessary fee to the Graduate College. This application requires a personal statement, curriculum vitae, official transcripts from previous undergraduate and graduate classes, supplemental form indicating the faculty members they are interested in working with and, to assist with TA assignment, the courses they would be qualified to TA, and letters of recommendation (a minimum of two letters are required, but up to three may be submitted) from individuals familiar with the applicant's work and potential for success in graduate school.

c. Student Application Deadlines.

For full consideration, the deadline for receiving all application materials for admission in the fall semester is January 15. For spring admission the application deadline is September 1. Applications received after these deadlines can still be considered for acceptance, and financial support can still be offered if available, but these applications will receive lower priority. International graduate students must be admitted by the deadlines specified by the OSU Graduate College⁴.

5. Admission of Graduate Students.

- a. Review of applications by faculty. Application progress will be monitored by the Graduate Coordinator. All completed applications received by the application deadline will be made available for all Biology Department faculty to review, and the Graduate Coordinator will contact faculty members identified as prospective advisors on a student's supplemental form to review that student's application. Faculty will state their opinion concerning admission of the student to a Biology graduate program, any condition attached to such admission or the need to make up deficiencies, funding available to support the student, and whether they will serve as advisor. No applicant will be accepted without a Biology Department faculty member agreeing to serve as advisor.
- b. The graduate coordinator will set a date for priority admission by which time faculty should indicate their interest in admitting a student, serving as their advisor and availability of funding. Decisions on acceptance of students into the Biology graduate programs will be made by the Graduate Committee. Decisions will be based on the merits of the application including any input from Department faculty, priority for new faculty, current number of students in the proposed lab, the potential advisor's ranking of applications to their lab, availability, source and length of funding, and whether the

³ <https://gradcollege.okstate.edu/>

⁴ <http://catalog.okstate.edu/graduate-college/> (section 4.4)

advisor is a tenure track member of the department. The decision to accept or reject a student will be relayed in writing to the faculty member(s) who agreed to serve as the prospective student's advisor. The admissions offer will be relayed to the student in a letter from the Graduate Coordinator. For those students accepted, this letter should identify the advisor (and chair if different), sources of financial support for the academic year and summer, the expected date of arrival on campus and required attendance at mandatory training, and the requirement for continued satisfactory progress.

If the potential advisor objects to the Committee's decision regarding admission of a student into the program, the faculty member may attend a meeting of the Graduate Committee to present further information in support of the candidate, but they may not be present during the final deliberations. If no consensus of opinion between the parties can be reached, then all pertinent materials will be forwarded to the Department Head for mediation. The Department Head will make the final decision regarding admission into the program.

- c. Students whose applications arrive after the application deadline or who are not admitted in the initial round of acceptances may still be accepted at a later date pending funding availability and Graduate Committee approval, again using the procedures described in 5.b.
- d. Admitted graduate students will be financially supported by a GTA or GRA or by externally awarded fellowships.

6. Graduate Teaching Assistants and Associates

- a. Requirements and Employment. Must have a baccalaureate degree and be enrolled as a full time student as specified by the Graduate College. Priority will be given to graduate students in the Biology Department. Master's students are given the title of Graduate Teaching Assistant and Ph.D. students are given the title of Graduate Teaching Associate (in this document, GTA is used to refer to both). GTAs will be notified of their duties verbally, or in writing, by the supervising instructor of the course(s) prior to the first week of classes each semester. The supervising instructor may require training or preparatory meetings for the teaching assignment that take place before the first day of classes for the semester. Students whose funding does not require them to be a GTA nevertheless have the right to serve as a GTA for one semester during their degree program if they choose to do so.
- b. Eligibility for GTA positions. Top priority for receiving a TA position will be given to current graduate students in the Biology graduate programs who have been enrolled in the graduate program at the time of reemployment for less than three years (M.S. students) or less than six years (Ph.D. students). Current graduate students who have been enrolled for longer time periods can seek to be put into the top priority category for TA assignment by submitting to the Department Head for approval a written request that indicates good progress towards their degree and describes any circumstances that slowed their progress. The remaining slots will then be made available to students under consideration for admission to the Biology graduate programs. Other current graduate students in the department who are not in the top priority category for TA assignment will be considered for any remaining GTA positions. GTAs will not be awarded to those students failing to demonstrate satisfactory progress toward the degree.

- c. Assignment of GTAs to courses. In the preceding semester, the Department Head will request current graduate students to indicate their desire to be a GTA and their top 3 preferences for courses to TA for the next spring and fall semesters. The students will also be required to provide a complete list of their previous TA positions at Oklahoma State University.

The Graduate Committee, in consultation with course instructors, will make recommendations to the Department Head regarding GTA assignments. The Graduate Committee will consider instructor preference, TA background and performance, past history of teaching assignments (balancing course experience and opportunity for GTA to teach new courses), student preference for TA assignment, and departmental needs in making their recommendations. Assignments for GTA positions are ultimately made by the Department Head.

- d. Termination. An instructor may recommend to the Department Head that a GTA be terminated from a GTA position because of inappropriate behavior or unsatisfactory performance in their assigned duties. If a GTA is to be terminated, the Department Head informs the student in writing of this action, the reasons for termination, and of the student's right to a hearing conducted by the Graduate Committee (Section 13).

7. Graduate Research Assistants and Associates

- a. Requirements and Employment. Master's students are given the title of Graduate Research Assistant and Ph.D. students are given the title of Graduate Research Associate (in this document, GRA is used to refer to both). GRAs are employed by the supervising faculty member (usually the advisor), with the duration depending on the available funding. GRAs should be informed of their duties and responsibilities in writing by the supervising faculty member prior to employment. GRAs are normally salaried at the same level as GTAs.
- b. Termination. A faculty member who supervises a GRA may recommend to the Department Head that the GRA be terminated from a GRA position because of inappropriate behavior or unsatisfactory performance in their assigned duties. If a GRA is to be terminated, the Department Head informs the student in writing of this action, the reasons for termination, and of the student's right to a hearing conducted by the Graduate Committee (Section 13).

8. Requirements for Current Graduate Students. The student is ultimately responsible for understanding graduate program requirements and ensuring they are met on time. Students failing to meet the required deadlines will be ineligible for consideration for departmental awards and may receive lower priority for GTA positions.

- a. Graduate student folders. All graduate students will have folders ("departmental graduate folders") held in the Biology office under the supervision of the Administrative Assistant. These folders will be used by the Graduate Committee as necessary to evaluate student progress in the graduate program and will include application materials (except letters of reference), administrative paperwork (e.g., tuition waiver forms), and the following materials submitted by the student: training certificates (e.g., Responsible Conduct of Research, IACUC training), and as appropriate (see details below) the

approved Plan of Study, signed research proposal, Admission to Doctoral Candidacy form, Results of the Doctoral Comprehensive Exam form, and any other indicators of progress the student wishes to add to the folder. Students may access their folder at any time by requesting it from the Administrative Assistant.

b. Advisory committee. Before 12 months in residence, students must select an Advisory committee. For students who enter the program during the summer, this 12-month duration starts in August with the beginning of the fall semester. For all other students this 12-month duration starts the first day of the semester in August or January, depending on when the student first started the program. Advisory committees for M.S. students must consist of at least three members of the Graduate Faculty with at least one tenure-track member from the Department. Doctoral student Advisory committees must consist of at least four members of the Graduate Faculty with a minimum of two tenure-track members from the Department and one member from outside the Department. The student may have a committee chair who is not the student's research advisor. Advisory committee member roles and requirements will follow the guidelines specified by the Graduate College Catalog⁵ and Best Practices: Advisory Committees and Defenses⁶.

c. Advisory committee meetings. All graduate students will meet with their advisory committee at least once per calendar year after the establishment of the committee until completion of the degree.

d. Plan of Study. The Plan of Study is a listing of coursework to be taken by the student for completion of the degree; additional explanation and online submission can be found on the GC Round-Up section of the Graduate College website⁷. M.S. students must submit the Plan of Study prior to the completion of the second semester, excluding summer sessions. Ph.D. students must submit the Plan of Study prior to the completion of the third semester, excluding summer sessions.

e. Proposal. A project research proposal must be approved by the student's advisory committee within the first 12 months (M.S. thesis option) or 18 months (Ph.D.). Students are responsible for ensuring that the completed proposal with the Departmental cover page (available on the Biology Department website) is signed by each advisory committee member and that the cover page is placed in their departmental graduate folder within the above time frame. For students who enter the program during the summer, this 12- or 18-month duration starts in August with the beginning of the fall semester. For all other students this 12- or 18-month duration starts the first day of the semester in August or January, depending on when the student first started the program. The following apply to both M.S. and Ph.D. proposals.

- i. Proposal format. The exact format and length of the project research proposal should be determined by the student and their advisory committee.

⁵ <http://catalog.okstate.edu/graduate-college/> (Section 19.5 for M.S. and Section 23.4 for Ph.D.)

⁶ <https://gradcollege.okstate.edu/site-files/documents/best-practices-theses-and-dissertations-updated-2022.pdf>

⁷ <https://gradcollege.okstate.edu/resources/student-resources.html>

- ii. Proposal review. The proposal must be submitted to the advisory committee for consideration and approval. It is expected that students will prepare drafts of their research proposals to allow sufficient time for review and comment initially by the advisor and subsequently the entire advisory committee. It is also expected that faculty will review and return proposals to students in a timely fashion to allow the established deadlines for submission of the proposal to be met.
 - iii. Proposal approval. The student must hold an advisory committee meeting to discuss the proposal. This meeting may be preceded by a public seminar on the research proposal, as specified by the program requirements. The advisory committee may approve the proposal during the meeting or may require revisions before the proposal is approved. The committee will indicate their approval of the proposal by signing the research proposal cover page. For the proposal to be considered approved, the Advisor must vote in the affirmative and no more than one member of the Advisory Committee may cast a dissenting vote⁸.
- f. Doctoral candidacy. Approval of the completed Plan of Study and Proposal by the doctoral student's advisory committee advances the student to candidacy for the Ph.D. degree. Students must submit the "Admission to Doctoral Candidacy" form (found on the GC College Round-Up area of the Graduate College website⁹) to the Graduate College and place a copy of this form in their departmental graduate folder. The Graduate College requires that students must be admitted to candidacy no less than six months prior to graduation and must subsequently maintain continuous enrollment (a minimum of 2 graduate credit hours) in every fall and spring semester until graduation¹⁰.
- g. Comprehensive exam. Doctoral students must schedule and take the comprehensive exam (both written and oral portions are required) within 36 months of enrollment in the PhD program. For students who enter the program during the summer, this 36-month duration starts in August with the beginning of the fall semester. For all other students this 36-month duration starts the first day of the semester in August or January, depending on when the student first started the program. The comprehensive exam will be administered by the student's advisory committee and will cover general biological principles as well as the specific research area of the student. The format, duration and content of the written and oral exams are at the discretion of the advisory committee. It is expected for the student to consult with members of the advisory committee well before the exam to discuss the material the student is expected to know, format of the written exam, and the exam schedule. The written portion must be taken before the oral portion can be given. The oral portion normally should be taken within two weeks of taking the written portion. The advisory committee decides whether the student passes, and to pass, no more than one member of the Advisory Committee may cast a dissenting vote¹¹. Students are allowed two opportunities to pass the comprehensive exam. The timing of the second attempt and which portion(s) of the oral and written exams need to be retaken will be determined by the advisory committee, and it is recommended to allow

⁸ <http://catalog.okstate.edu/graduate-college/> (section 11.12)

⁹ <https://gradcollege.okstate.edu/resources/student-resources.html>

¹⁰ <http://catalog.okstate.edu/graduate-college/> (section 6.6 and 23.11)

¹¹ <http://catalog.okstate.edu/graduate-college/> (Section 11.12)

the student sufficient time after the first attempt so that the student can have enough time to learn the required material. Results of the exam are reported on the departmental “Results of Doctoral Comprehensive Exam” form, with signatures of all members of the student’s advisory committee, and placed into their departmental graduate folder.

h. Defense. To complete degree requirements, students pursuing an M.S. (thesis option) or Ph.D. degree are required to present a public seminar and complete a successful defense of their thesis or dissertation in a subsequent closed meeting with their advisory committee. To pass the defense, no more than one member of the Advisory Committee may cast a dissenting vote on the Oral Defense Results Form. Students (M.S. and Ph.D.) have two opportunities to pass the defense. A second defense attempt may not be scheduled earlier than 2 months after a failure¹².

9. Annual Review of Graduate Students.

a. The Graduate Committee will oversee a review of all graduate students in the Biology Department annually to track progress, ensure timely completion of program and degree requirements, and provide students with an efficient and instructive mechanism of reviewing their performance and setting goals for the upcoming year.

b. The annual review for all graduate students will cover the previous calendar year (1 January – 31 December), regardless of the student’s start date in the graduate program.

c. All students will prepare their annual reviews by following the template provided in Appendix V.

d. Annual reviews must be submitted no later than the first day of classes each Spring semester. They should be submitted by email to the student’s advisor and advisory committee and cc’d to the Administrative Assistant. Students are expected to submit this document to their advisor in advance to ensure that the advisor previously has seen and accepts the contents of the student’s submitted annual review.

e. The Graduate Committee will evaluate the annual reviews in a timely fashion to ensure satisfactory progress is being made on meeting deadlines for degree requirements and is on track to graduate in the expected timeframe of 3 years or less for MS and 6 years or less for PhD. The Graduate Committee will communicate to both the student and their advisor the results of the evaluation to call attention to achievements worthy of nomination for award/recognition or, when necessary, deficiencies in need of corrective action (for instance, failure to meet the deadlines specified in Section 8: Requirements for Current Graduate Students). Should corrective actions be required and the student fails to make these corrections, the Graduate Committee may recommend loss of assistantship/associateship, dismissal from the graduate program or other actions to the Department Head.

10. Graduate Student Awards. The Graduate Committee makes recommendations for all graduate Departmental, College, and University awards following application solicitation and review. All members of the committee will rank and discuss the applicants for the awards.

¹² <http://catalog.okstate.edu/graduate-college/> (Section 19.13 for M.S. and Section 23.13 for Ph.D.)

Graduate Committee members will recuse themselves from any discussion or decisions about awards if a member of their lab had applied for that award. If several members of the committee have to recuse themselves from an award, the Graduate Coordinator will ask another faculty member(s) of the department (who themselves do not have a graduate student applying for that award) to join the committee for those particular award decisions.

11. Changing advisors. If either a student wants to no longer be the advisee of a faculty member or a faculty member wants to no longer be the advisor to a student, they will send a dated document that indicates this to the other party, copied to the Department Head and to the Graduate Coordinator. The student, if they want to continue in the graduate program, must identify a new advisor by the end of the current semester or within 60 calendar days from the date the document was sent, whichever is longer. If they do not do so, they will be recommended for dismissal from the graduate program by the Graduate Committee. This recommendation shall be advisory to the Department Head. If the circumstances are deemed extraordinary by the Graduate Committee, in close consultation with the Department Head, additional time to find a new advisor in the department may be given. A change in advisor may require the formation of a new advisory committee, a revised Plan of Study, a new Research Proposal and/or new Comprehensive Exam, all of which are at the advisory committee's discretion. The student and new advisor may jointly request an extension of the deadlines for submission of the Plan of Study, Research Proposal, and/or Comprehensive Exam (as applicable) from the Graduate Committee. Sufficient detail and justification for the proposed new deadlines should be included in the request. If approved, those new deadlines are immediately in force.

12. Grievances. The Graduate Committee acts as a grievance committee for disputes related to graduate students' research program or employment. Students should bring complaints to the Graduate Coordinator or the Department Head. If a complaint is brought to the Department Head, the Head will pass it to the Graduate Committee for consideration. Committee members involved in a complaint will recuse themselves. Any discussions between a student and committee members will be held in a discrete manner. The following procedures will be followed by the Graduate Committee as expeditiously as possible:

- a. In the initial meeting where the student presents the grievance, the Graduate Committee will provide preliminary suggestions on how to resolve the issue, and ask the student to follow up with the graduate committee in a timely manner about whether or not the issue has been resolved.
- b. Based on the nature and severity of the issue, the Graduate Committee will determine whether a hearing is warranted by meeting separately with the concerned student(s) and the other concerned individuals. If it is determined that a hearing is not warranted, the involved individuals will be advised of other campus resources that may be able to provide support. Certain types of grievances may need to be directly referred to other campus offices.
- c. If a hearing is warranted, the Graduate Committee will request letters from all individuals involved with information pertaining to the issue.

d. The Graduate Committee will conduct further conferences with concerned individuals as deemed necessary.

e. The Graduate Committee will submit a recommendation to the Department Head, who will make the final decision about the outcome of the process.

13. Termination of graduate students. Students may be terminated from the graduate program due to poor academic performance, consistent unsatisfactory progress, misconduct, and/or academic integrity violations. The procedure for termination of GTA and GRA positions is described in Sections 6.d. and 7.b. In instances where the student is terminated from the program, the procedures described in the academic catalog for the Graduate College on “Discontinuance from a program” will be followed¹³.

¹³ <http://catalog.okstate.edu/graduate-college/> (Section 11.3)

Appendix I. Degree Requirements for the M.S. in Integrative Biology

Credit Hour Requirements. Students may select a thesis or report option. The thesis option is more common and generally is recommended. The courses taken to fulfill degree credit hour requirements are listed on the Plan of Study. The credit hour requirements for the thesis or report options are as follows:

Thesis option:

1. A minimum total of 30 credit hours.
2. A minimum of 2 seminar classes.
3. A minimum of 6 hours of thesis (BIOL 5000); hours of BIOL 5000 beyond 6 will not count toward the total of 30.
4. A minimum of 15 hours of 5000 level courses or seminars, not including BIOL 5000.

Report option:

1. A minimum total of 32 credit hours.
2. A minimum of 2 seminar classes.
3. A minimum of 2 hours of thesis (BIOL 5000); hours of BIOL 5000 beyond 2 will not count toward the total of 32.
4. A minimum of 19 hours of 5000 level courses or seminars, not including BIOL 5000.

Thesis Requirement. Students who select this option must write a thesis containing original research that is worthy of publication in a refereed journal(s) as determined by the student with the approval of his/her advisory committee.

Report Requirement. Students who select this option must complete a written literature review (or similar) of some defined research field as agreed upon by the student and his/her advisory committee. A formal proposal is not required for the report option, but the Advisory Committee must approve an outline of the report within the first 12 months in residence and this approved outline is placed by the student into their departmental graduate folder. For students who enter the program during the summer, this 12-month duration starts in August with the beginning of the fall semester. For all other students this 12-month duration starts the first day of the semester in August or January, depending on when the student first started the program. The final report is reviewed and approved by the Advisory Committee and the Graduate College and subjected to the same format requirements and deadlines as a thesis.

Responsibilities.--It is the student's responsibility to meet deadlines of the Department and Graduate College. Students are advised to check with the Graduate College for additional requirements (e.g., changes to the Plan of Study, changes to the Advisory Committee, thesis and report format, scheduling of the final examinations). Students are expected to participate in all Departmental activities (e.g., weekly, lunchtime, and special seminars, annual Departmental orientation seminars and any other required training sessions).

Appendix II. Degree Requirements for the Ph.D. in Integrative Biology

Credit Hour Requirements. The courses taken to fulfill degree credit hour requirements are listed on the Plan of Study. The credit hour requirements are as follows:

1. A minimum total of 60 credit hours.
2. A minimum of 3 seminar classes.
3. A minimum of 15 hours of dissertation (BIOL 6000).
4. A minimum of 25 hours of 5000 or 6000 level courses or seminars, not including BIOL 6000.
5. At least 75% of courses (including BIOL 6000) taken at the 5000-6000 level.

Dissertation Requirement.--Students must complete an original research project that is worthy of publication in a refereed journal(s) as determined by the student with the approval of his/her advisory committee.

Responsibilities.--It is the student's responsibility to meet deadlines of the Department and Graduate College. Students are advised to check with the Graduate College for additional requirements (e.g., changes to the Plan of Study, changes to the Advisory Committee, dissertation format, scheduling of the comprehensive examination and final defense). Students are expected to participate in all Departmental activities (e.g., weekly, lunchtime, and special seminars, annual Departmental orientation seminars and any other required training sessions).

Appendix III. Degree Requirements for the M.S. in Plant Biology (with thesis)

Graduate College Requirements

1. Enroll in at least 6/6/2 credit hours for fall/spring/summer to hold a GTA or GRA.
2. Complete a minimum of 30 credit hours approved for graduate credit. A minimum of 24 hours must be at the 5000-level or above plus exactly 6 hours in thesis credit (PBIO 5000).
3. Maintain a 3.0 GPA. No course with a grade lower than a B can count toward the M.S.
4. No courses utilizing the Pass/No Pass system are permitted.

Program Requirements

1. Complete PBIO 5110.67870, *Professional Development*, during the first full year of enrollment, typically taught each fall. Credit hrs: 1.
2. Present two seminars to the Department: one based on your research proposal and one on thesis research. Enroll in PBIO 5850, during term of presentation. Credit hrs: 2. Cancelling your seminar is discouraged, however if you cannot present a seminar in the semester you enrolled, discuss this with your advisor, notify your committee, and the seminar director for 5850, **but do not drop the course**. It is advisable to take an Incomplete (I) and give your seminar the following academic semester; otherwise you may be subjected to tuition and fees due to deadlines associated with adding a course to maintain full time enrollment. It is **your responsibility** to remind the seminar director during the semester in which you originally enrolled to change your grade from an Incomplete.
3. Your committee will determine the remaining core courses that you are required to take, depending on your background and personal goals. All required coursework goes onto the Plan of Study.
4. All credit hours that count toward the M.S. must be taken in courses approved for graduate credit (e.g., 5000, 6000). Maximum credit hours currently allowed to count toward the M.S. in PBIO 5000, 5110, and 5210 are 6, 24, and 12, respectively. No courses utilizing the Pass/No Pass system are permitted.
5. Refer to "Progress Toward Degree" section to track progress.
6. If you take courses not required by your committee, you must obtain written permission from your advisor before you enroll and have that memo placed in your file in the Department office. This tuition is ineligible for a waiver.

Program Recommendations

Demonstrate proficiency in two core areas in Plant Biology by completing, to the satisfaction of your committee, two courses in each of the two areas listed below. These requirements may be fulfilled prior to entering the M.S. program. Your Committee will determine which courses taken at previous institutions may be counted toward these requirements.

Plant Ecology and Evolution (e.g., *Plant Diversity and Morphology*, *Plant Taxonomy*, *Field Botany*, *Ecology*, *Evolution*).

Plant Cell and Molecular Biology (e.g., *Plant Anatomy*, *Cell Biology*, *Molecular Biology*, *Biochemistry*, *Genetics*, *Plant Physiology*).

Appendix IV. Degree Requirements for the Ph.D. in Plant Biology

Graduate College Requirements

1. Enroll in at least 6/6/2 credit hours for fall/spring/summer to hold a GTA or GRA.
2. Students with an M.S. must complete a minimum of 60 credit hours approved for graduate credit, and those without an M.S. must complete either 70 or 90 hours (requires committee approval for 70). All Ph.D. degree Plans of Study must include at least 15 hours in dissertation credit (PBIO 6000), and at least 42 or 72 additional credit hours at the 5000-level or above for the 70 and 90 credit hour degrees, respectively.
3. Maintain a 3.0 GPA. No grade in any course below a B can count toward the Ph.D.
4. No courses utilizing the Pass/No Pass system are permitted.

Program Requirements

1. Complete PBIO 5110.67870, *Professional Development*, during the first full year of enrollment, typically taught each fall. Credit hrs: 1.
2. Present two seminars to the Department: one based on your research proposal and one on dissertation research. Enroll in PBIO 5850, during term of presentation. Credit hrs: 2. If you cannot present a seminar in the semester you enrolled, discuss this with your advisor and the seminar director for 5850, **but do not drop the course**. It is advisable to take an Incomplete (I) and give your seminar the following academic semester; otherwise you may be subjected to tuition and fees due to deadlines associated with adding a course to maintain full time enrollment. It is **your responsibility** to remind the seminar director during the semester in which you enrolled to change your grade from an Incomplete.
3. Maximum credit hours currently allowed to count toward the Ph.D. in 5110, 5210, and 6000 are 24, 12, and 60, respectively.
4. Refer to "Progress Toward Degree" section to track progress.
5. If you plan to take courses not required by your committee, you must obtain written permission from your advisor and have that memo placed in your file in the Department office. This tuition is ineligible for a waiver.

Program Recommendations

Demonstrate proficiency in two core areas in Plant Biology by completing, to the satisfaction of your committee, two courses in each of the two areas listed below. These requirements may be fulfilled prior to entering the Ph.D. program. Your Committee will determine which courses taken at previous institutions may be counted toward these requirements.

Plant Ecology and Evolution (e.g., *Plant Diversity and Morphology*, *Plant Taxonomy*, *Field Botany*, *Ecology*, *Evolution*).

Plant Cell and Molecular Biology (e.g., *Plant Anatomy*, *Cell Biology*, *Molecular Biology*, *Biochemistry*, *Genetics*, *Plant Physiology*).

Appendix V. Graduate Student Annual Review Template
Department of Biology

- I. Date:
- II. Name:
- III. Degree:
- IV. Semester and year you entered the graduate program:
- V. Expected defense date
- VI. Graduate advisor:
- VII. Advisory committee members:

- VIII. Semester and year approved Plan of Study due:
 - a. Status of your Plan of Study:
- IX. Semester and year approved Research Proposal due:
 - a. Status of your Research Proposal:
- X. Semester and year Comprehensive Exam due:
 - a. Status:
- XI. Dates of all Advisory Committee meetings:

- XII. Research activities/progress during review period
 - a. Grant/scholarship/fellowship proposals submitted

 - b. Presentations

 - c. Publications

 - d. Other

- XIII. Teaching/mentoring activities/progress during review period
 - a. Courses/lab sections for which you served as a teaching assistant/associate
 - i. Modifications, innovations, or any other extra work contributed in the course of carrying out your assigned TA
 - b. Undergraduate students mentored/assisted in research, including a brief explanation of your role
- XIV. Professional activities/progress during review period (enter "None" as necessary)
 - a. Leadership positions held

 - b. Memberships in professional organizations

- c. Committee service (departmental, college, university, professional organization, etc.)
 - d. Professional development activities (workshops attended, certifications received, etc.)
 - e. Other
 - f. Outreach/Broader Impact activities during review period, list and briefly describe, including location and date
- XV. Goals for upcoming review period
- a. Research goals
 - b. Teaching/mentoring goals
 - c. Professional goals
 - d. Outreach/Broader Impact goals
- XVI. Curriculum Vitae (CV) – attach an updated, complete CV to this annual review