

2020-2021* Handbook and Academic Guidelines
MS and PhD Plant Biology Programs
Department of Plant Biology, Ecology, and Evolution
Oklahoma State University

*Approved by PBEE Faculty 14 February 2020

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- Graduate College (GC) forms can be found online at <https://gradcollege.okstate.edu> or, in some cases may be obtained from the PBEE Unit Assistant.
 - PBEE Departmental forms can be found at the end of this document.
 - The graduate student is ultimately responsible for checking the OSU Graduate College website for deadlines and forms, for completing and submitting all forms on time, and for providing a file copy to the PBEE Unit Assistant.
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- GC: GSSI Tuition Waiver Online Form [print for file]; due to Graduate College 1st week of classes of each and every semester including summer (submit no later than Friday of first week of classes).
 - GC: Plan of Study Online Form [print fully approved copy for file]
 - GC: Admission to Doctoral Candidacy [Ph.D. students only]
 - GC: Reduced Enrollment Opt-In Form [Ph.D. candidates only]
 - GC: Opt-in Petition for degree name change from Ph.D. Plant Science to Ph.D. Plant Biology
 - GC: Thesis/Dissertation Defense Form
 - GC: Graduation Clearance Form
 - GC: Graduation Application
 - GC/ISS: Final Semester Verification [international students]
 - PBEE: Annual Progress, Appraisal, and Development Report [due to advisor January 31st for previous calendar year activities, reflection, and future goals]
 - PBEE: Research Proposal Approval Form [signed & dated; attach approved proposal for file]
 - PBEE: Qualifying Exam Report [Ph.D. students only]

Academic Guidelines

These guidelines include all graduate students in the PBEE Department enrolled in any graduate degree programs including, but not limited to, the Plant Biology M.S. or Plant Biology Ph.D. All graduate students, must follow the guidelines of the Graduate College and the PBEE Department.

Preamble: The Context, Value, and Expectations of Graduate Degrees

Graduate degrees in the life sciences are primarily research degrees, enabling recipients to conduct independent scientific inquiry as self-motivated professionals. Such individuals contribute greatly to the advancement of society, through generation of new knowledge relevant to economic development and environmental protection. Federal and state governments and various types of non-governmental entities therefore financially support scientific research, including training of graduate students, through competitive grants, contracts and fellowships. In return, it is generally expected that research results will be published in peer-reviewed journals.

Many holders of graduate degrees also will have the opportunity or expectation to educate others at some point in their careers. Thus, graduate training also typically includes experience as a Graduate Teaching Assistant (TA). Through OSU's monthly payroll system, TA's receive a one-half month stipend on September 15th for work performed in August, then are paid on a monthly basis at the end of each month for eight months (September-April), and a second one-half month stipend for work performed in May that will be paid on May 31. Some may hold a Graduate Research Assistant (RA), typically for a portion of their degree program. RA funds come predominantly from grants obtained by faculty. Both RA and TA appointments are half-time (50%), requiring approximately 20 hours per week (on average) devoted to the work assignment. TA and RA stipends are compensation for service while completing coursework and research. Students may apply for and receive a competitive graduate fellowship that provides a higher stipend and allows them to devote 100% effort to their graduate program. These are available through federal agencies (NSF, EPA, etc.) as well as the OSU Graduate College. Regardless of the source of financial support, all graduate students should keep in mind that the primary goal is to complete in a timely manner high quality thesis/dissertation research, along with coursework in support of that goal.

Given this context, graduate training in M.S. Plant Biology and Ph.D. Plant Biology programs is primarily aimed at self-directed/motivated intellectual development and publishing research results, in addition to job skills acquisition *per se*. Students ideally should aim to complete the M.S. degree in 2-3 years and the Ph.D. degree in 4-6 years. This normally requires a year round and consistent effort to finish within this time. A student's progress will be formally evaluated by his/her advisor on an annual basis, which will be based on time devoted to research and tangible research results. The OSU Graduate College requires that the Department forward all annual evaluations of students making unsatisfactory progress for their review.

Sources of Information on Graduate School Procedures

All PBEE graduate students should familiarize themselves with regulations found in the Graduate College Catalog and the Department of PBEE Academic Guidelines (this document).

Candidate Screening

Prospective M.S. or Ph.D. students must apply online through the OSU Graduate College website. A prospective student's credentials will be presented to the entire PBEE faculty and admission must be approved by a majority of the graduate faculty. At least one of these must agree to serve as the student's graduate advisor.

International Students

International Students must follow the guidelines of the International Students and Scholars office (<https://lcl.okstate.edu/iss/>), as well as Graduate College requirements (gradcollege.okstate.edu). New international teaching assistants (ITA) are required to have a qualifying score of 26 or greater on the speaking portion of the iBT or to take the ITA test prior to being approved for instructional assignments. All new ITAs are also required to participate in the international teaching assistant orientation.

Advisory Committee

An admitted student's advisory committee shall be appointed no later than the end of the second (preferably the first) semester of enrollment. Students, in consultation with their advisors, must select at least two (M.S.) or three (Ph.D.) additional members of the Graduate Faculty to form an advisory committee. M.S. committees must have at least two faculty members from within the PBEE Department, including the advisor. Ph.D. committees must have at least one member from outside of the Department of PBEE and at least two members (including the advisor) from within the Department. If a non-OSU faculty member is desired, you must discuss this with your advisor and the Graduate Coordinator and/or Department Head because specific Graduate College rules and procedures apply. The advisory committee will help the student develop and approve changes to a Plan of Study (a Graduate College online form specifying *mandatory* coursework), approve the research proposal (submit committee-signed PBEE approval form to unit assistant), provide research guidance as needed throughout program, administer the qualifying examinations (Ph.D. only), and approve the final draft of the thesis or dissertation. **Deviations from any program requirements are at the discretion of the Advisory Committee. Graduate College requirements require a petition to the Graduate College with Advisory Committee approval.** Changes in the Plan of Study and committee composition (when a member can no longer serve) are allowed, but the former requires approval by the advisory committee and the latter requires approval by the Department Head and Dean of Graduate College. Changes in advisors require a Revised Plan of Study and a new Research Proposal and Seminar, and may require new qualifying exams, all of which are at the advisory committee's discretion. If a graduate student changes advisors, he/she must identify a new one who agrees to serve as his/her advisor by the end of the current semester or within 60 calendar days, whichever is longer. Without an advisor, the student will be dismissed from the program.

The major advisor has a special mentoring relationship with the student, and is the principal person responsible for guiding the student's professional development. The advisor is also expected to solicit grant support for research supplies, travel, and RA stipends for her/his students, and to encourage students to seek their own extramural support. However, financial support is neither an entitlement nor guaranteed. Students are reasonably expected to produce publishable research results by the time of graduation. Major advisors must provide

an annual, confidential written critical evaluation of progress for each student, including goals for the next year and suggestions/plans for improvement, followed by a private discussion ([see template on pages 16-17](#)). A copy of the Annual Progress and Development report signed by the student, advisor and advisory committee must be provided to the PBEE Graduate Coordinator and Unit Assistant to be placed on file in the Departmental Office. This process takes place early during the spring semester and is based on the calendar year. Progress toward the degree is considered when TA appointments are renewed for the following academic years.

Credit and Enrollment Requirements

M.S. students must complete at least 30 graduate credit hours (as indicated in the Graduate Catalog). Exactly 6 credit hours (at least 6 but no more than 6) must be in PBIO 5000 with an additional 24 credit hours of graduate coursework numbered 5000 and above.

Ph.D. students who already have an M.S. are required to complete a minimum of 60 graduate credit hours for graduation. Ph.D. students without an M.S. are required to complete a minimum of 70 credit hours and a maximum of 90 credit hours, with specific details determined in consultation with the student's Advisory Committee. The 70-hour Plan of Study is implemented through a 60-credit hour Plan of Study with 10 additional hours listed; the 90-hour Plan of Study is implemented through the 90 credit hour Plan of Study. A 70-credit hour Ph.D. requires advancing to candidacy in a timely manner to enable enrollment in reduced credit hours (see paragraph below). Current students in the 90-credit hour Ph.D. program may opt into the 70-hour program with approval by their Advisor and Advisory Committee; this requires a new Plan of Study.

M.S. original Plans of Study are due to the OSU Graduate College no later than the completion of the second semester; Ph.D. original Plans of Study are due no later than the end of the third semester (excluding the summer term). A Revised Plan of Study may be submitted at any time; for example as new courses become available. The Graduate College requires that all students submit an original Plan of Study by the deadlines above, and a Revised Plan of Study near the completion of the degree program.

Most students will be on half-time (0.5-FTE) TA or RA support, and must enroll in *at least* 6/6/2 credit hours each fall/spring/summer term (typically research hours in summer, i.e. PBIO 5000 or 6000 – in summer). Ph.D. candidates (those with a fully approved research proposal who have submitted the 'Admission to Doctoral Candidacy' Form to the Graduate College) may enroll in a minimum of 2 credit hours during any regular semester to maintain full-time status, but first must submit to the Graduate College the 'Opt In Form for Reduced Enrollment'. Students not supported on a TA or RA must enroll in 9/9/4 credit hours each fall/spring/summer term to retain full-time status, and a minimum of 2 credit hours each semester for part-time status; the latter may affect financial aid and student loan deferral. Consult the Graduate College catalog and website for more detailed rules about the requirement to maintain continuous enrollment.

OSU waives in- and out-of-state tuition for students holding a TA, RA, or Fellowship; however the waiver does not cover fees. GSSI Tuition waiver forms must be submitted online to the Graduate College each semester no later than the Friday of the first week of class. The tuition waiver program waives all in- and out-of-state tuition on the Plan of Study up to the number of credit hours required for the degree. Tuition waiver for additional credit hours may

be approved by the Graduate College through a petition process. Consult the Graduate College catalog and website for more detailed rules about the tuition waiver program.

All M.S. Plant Biology and Ph.D. Plant Biology students are expected to enroll in the course *Professional Development in Plant Biology* (PBIO 5110.67870) during their first year (or the first time it is offered after admission).

Teaching Requirement

A minimum of one semester teaching experience is required of all M.S. and Ph.D. students. This requirement may be satisfied by enrollment in a college teaching practicum course or by one semester experience as a TA. Equivalent prior teaching experience may suffice, but only if approved by the advisory committee.

Seminar Requirement

All M.S. and Ph.D. students must enroll in a minimum of 2 semesters of Seminar (PBIO 5850, 1 credit hour) and give a public presentation during those semesters. Students are required to present one seminar on their thesis/dissertation research proposal and one finishing seminar on their results and conclusions, early and late in the student's degree program, respectively. Ph.D. students are required to present a public seminar as part of their defense, which is then followed by an oral defense with the committee; M.S. students are encouraged to do so at the discretion of the advisor. All graduate students are required to attend all PBEE seminars whether enrolled or not and regardless of the topic or venue, and are expected to be active participants by asking questions of the presenters and meeting with them as organized by the faculty host and the Department. These are professional activities and participation is expected.

Research Proposal Requirement

A proposal must be written and presented to the advisory committee for approval within the first year of residence for M.S. students or the first two years for Ph.D. students. The proposal should be 10-20 pages in length, outlining objectives and methods of anticipated research and how the findings will be disseminated. This should be submitted to the advisory committee for consideration and approval, and discussed in a committee meeting. The following information should also be included unless otherwise specified by the advisory committee:

1. Statement of the research questions or hypotheses to be tested
2. Review of relevant literature
3. Research design, including analysis of any preliminary data
4. Facilities needed
5. Budget
6. Time schedule
7. Background and preparation of student

A copy of your fully approved proposal and a committee-signed approval form must be provided to the departmental unit assistant for your file. Ph.D. students must also file the 'Admission to Doctoral Candidacy' Form with the Graduate College upon approval of the

proposal, and the 'Opt in for Reduced Enrollment' Form shortly thereafter.

Qualifying Examinations

After a Ph.D. student has completed most of the required coursework he/she shall request that qualifying examinations be developed by the advisory committee to cover major areas of the student's research, Plan of Study courses, and related topics. Exams shall be both written and oral, with the latter following the former. If one or more components of the qualifying exams are failed or unsatisfactory, the advisory committee shall specify in writing the conditions for retaking the exam(s). An exam may not be retaken within four months of failure. A second failure of the exam terminates the student from the Ph.D. program. A signed and dated 'Qualifying Exam Report' must be completed that indicates the outcome of the exams; if either the written or oral portions were deemed unsatisfactory, requirements to retake the exam(s) must be indicated on the signed Qualifying Exam Report and the original form provided to the department unit assistant.

Special Skills

The student's advisory committee may also require proficiency in a foreign language, statistics, computer science, mathematics, or other areas. Proficiency may be demonstrated by appropriate course work.

Thesis/Dissertation

Students must write a thesis (M.S.) or dissertation (Ph.D.) based on their original research. After completion and approval by the major advisor, a provisional draft shall be submitted to each advisory committee member for their critical evaluation before the final draft. The provisional draft shall be presented to each committee member at least six weeks prior to the date the thesis/dissertation is due in the office of the Graduate College. The final draft shall be available to committee members at least two weeks prior to the date of the final oral defense, which shall be administered by the entire advisory committee.

Consult the Graduate College's *Thesis Manual* regarding the formatting of the thesis/dissertation and enroll in the required online course. At the discretion of the advisory committee, the body of the thesis/dissertation may be in one of two formats:

1. A traditional comprehensive document with one or more chapters corresponding to different aspects of the research, or
2. One or more separate, stand-alone manuscripts formatted for a peer-reviewed journal.

Given the importance of peer-reviewed publication, advisory committees increasingly specify the latter format, but this is at the discretion of the advisor and committee. If a student plans to submit a manuscript to a journal before he/she finishes his/her degree, the entire advisory committee shall be given the opportunity to provide input before it is formally submitted. The Graduate College requires workshops and provides guidance on thesis and dissertation format and submission on their website.

A non-thesis option of the M.S. is available at the discretion of the student's advisor and committee. We strongly suggest an M.S. with thesis for students who wish to pursue additional

professional degrees including the Ph.D. The transcript and diploma state non-thesis M.S. The non-thesis M.S. requires approval by the student's advisory committee, and is a 32-credit hour degree (the Graduate College requires 30 hours of coursework and 2 hours of research) that requires an Advisory Committee-approved, written report. A Formal Report Acceptance Form must be submitted to the Graduate College.

Switching from the M.S. Plant Biology to the Ph.D. Plant Biology program

A student enrolled in the M.S. Plant Biology program can apply directly to the Ph.D. Plant Biology program without completing the M.S. if their advisor and advisory committee support this change based on research progress and accomplishments made thus far. Students considering this option must first discuss this with their advisor and committee, and are encouraged to discuss it with the graduate coordinator and the department head. This requires (i) a new application to the Plant Biology Ph.D. program via the Graduate College website; (ii) a new personal statement that details research progress and accomplishments made toward the M.S., and explains the reasons for wanting to directly seek a doctoral degree without completing the M.S.; and (iii) letters of recommendation from all of the student's M.S. committee members. The student's credentials will be presented to the entire PBEE faculty and admission must be approved by a majority of the PBEE graduate faculty.

This application should typically be submitted no earlier than the third semester in the M.S. program, and by the end of February for full consideration with TA support for the following academic year. Thus a student would typically submit his or her application no later than February of their fourth semester for admission into the program in the fifth semester. Because the clock does not reset to the first semester, switching from the M.S. requires immediate formation of a Ph.D. committee and a revised Plan of Study, and approval of a Research proposal and presentation of the Research seminar no later than the sixth semester (excluding summer) since this would be the third year in a graduate program at OSU. An M.S. student who switches to the Ph.D. (forgoing their M.S.) may receive a maximum of six years of TA support.

Earning an M.S. Plant Biology 'Along the Way' to the Ph.D. Plant Biology

Students enrolled in the Ph.D. Plant Biology program who do not have already have an M.S. Plant Biology or M.S. Botany may earn one while working towards their Ph.D. OSU allows for up to 30 credit hours to count toward both degrees. Students must meet the requirements for an M.S. (page 10) with two options available: non-thesis M.S. with report option (page 7) or M.S. with thesis. The M.S. thesis is not a duplicate of a chapter in the Ph.D. dissertation, but may be closely related. Thus this decision requires careful consideration that includes excluding a chapter that cannot be placed in the Ph.D. dissertation. Ph.D. Advisory committee approval and an M.S. Plan of Study are required. Students must notify the PBEE Graduate Coordinator and the Department Head, who will notify the Graduate College at least one semester before the M.S. is to be awarded. No fees are charged by the Graduate College to earn an MS. 'Along the Way' to the Ph.D.

Publications, Funding and Conferences

It is generally expected that all students will have at least one (M.S.) or two (Ph.D.) manuscript(s) submitted, and ideally accepted, for publication in peer-reviewed journals prior to graduation. In practice, this would mean prior to the final oral defense of the thesis/dissertation.

Similarly, students are strongly encouraged to solicit extramural funding for their research and professional development. This may include awards for travel to conferences from professional societies, and grants and fellowships from relevant organizations, foundations and/or government agencies. Peer-reviewed publications and extramural funding are highly regarded by prospective employers, both in- and outside-of-academia. Finally, it is expected that all students will attend at least one national scientific conference at least every two years, and will present their research results at a national conference at least once prior to graduation. Financial support is often available from your advisor, OSU-GPSGA, professional societies, and/or the department – just ask/apply! Annual attendance and presentations at local and regional conferences are advisable.

Leave of Absence and Reinstatement Policy

The Graduate College has strict continuous enrollment and Leave of Absence policies. Should you require a leave of absence for medical or personal reasons, this requires approval by the PBEE Department and Graduate College. The Department is also required to have a Reinstatement Policy. The PBEE Department reinstatement policy applies to Plant Biology M.S. and Plant Biology Ph.D. students. To be reinstated from a formal Leave of Absence, previously approved by PBEE and the Graduate College, students must provide to their advisor(s) and advisory committee(s) a brief synopsis of their research progress that may include courses taken, research proposal status, qualifying exams (if applicable), and research plan with a list of all tasks completed thus far indicating date and degree of completion (i.e., 100%, 50%, etc.). They also must work with their advisor(s) to develop a detailed list of tasks to be completed upon their return to the program that includes a detailed timeframe to successfully complete all degree requirements. The timeframe should encompass the semester they plan to return to the graduate program through the date they plan to submit their final and approved thesis/dissertation to the Graduate College. The tasks to be completed should include all activities for the research project and may include data collection, data analyses, and stages of writing (first draft, second draft, final version, etc.). The advisor(s) may also require the student to include tasks such as depositing data in a public database or annotating specimens, etc. After the student and advisor have agreed to a provisional timeframe and list of activities to be accomplished, the student must set up a committee meeting to discuss his/her plan; these documents must be approved, signed, and dated by the student and all committee members and a copy provided to the PBEE Graduate Coordinator and the original provided to the PBEE Unit Assistant to be filed. The synopsis and detailed timeline informs the committee of what the student needs to accomplish in the timeframe proposed, and should assist the student in making timely progress after a Leave of Absence.

OSU Separation Checklist and Exit Interview

All graduate students who either graduate or withdraw from their degree program are required to complete and sign an OSU Separation Checklist in consultation with his or her Advisor, the Unit Assistant and/or Financial Assistant, and the Department Head. All departing graduate students must contact the Department Head to set up an Exit Interview. The Separation checklist is available from the PBEE Unit Assistant and at this link: <https://research.okstate.edu/compliance/documents/termination-separation-checklist.pdf>

Course Requirements for the Plant Biology M.S. (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.

Departmental 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 PBEE 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 PBEE office. This tuition is ineligible for a waiver.

Departmental 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*).

Progress Toward the M.S. Degree

Normal progress toward the M.S. degree includes the steps in the following checklist. Ideally, the M.S. should result in submission of at least one manuscript to a peer-reviewed journal and at least one presentation (poster or oral) at a national conference. Support as a TA or RA is typically available for 2 calendar years with satisfactory progress. Support may be available for a third year if warranted. More than 3 years of financial support requires special justification. For additional Graduate College enrollment requirements, refer to the OSU Catalog and the OSU Graduate College website.

Completed	Semester	Required Action Initiated by Student
	1	Work with Advisor to select Advisory Committee.
	2	Schedule first meeting with Advisory Committee to develop Plan of Study; submit to Graduate College for approval.
	2	Write Research Proposal and submit to Advisory Committee for consideration, defense, and approval. Present Seminar on Research Proposal.
	3-4	Complete courses approved by Advisory Committee. Complete bulk of research.
	4-5	Write thesis in accordance with Graduate College and departmental guidelines. Provisional draft should be given to the Committee 6 weeks before the Graduate College deadline; final draft completed 2 weeks in advance of the defense.
	4-5	Present Seminar on thesis research; this may precede the oral defense if arranged in advance with your Committee.
	4-5	Set Thesis Defense date, paying attention to Graduate College deadlines.
		Provide an electronic copy of final thesis to the PBEE Administrative Assistant. Arrange an exit interview with the Department Head or Graduate Coordinator. Return keys and complete separation checklist with Advisor, PBEE Administrative Assistants, and Department Head. Make an oral or a poster presentation at a national or an international conference. Submit manuscript to a peer-reviewed journal. These actions are expected and encouraged, but not required, for graduation.

Refer to (<http://gradcollege.okstate.edu>) for Graduate College deadlines, forms, and information.

Course Requirements for the Plant Biology Ph.D.

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.

Departmental 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 PBEE 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 PBEE office. This tuition is ineligible for a waiver.

Departmental 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*).

Progress Toward Ph.D. Degree

Normal progress toward the Ph.D. degree includes the steps in the following checklist. Support as a GTA or GRA is typically available for 5 calendar years for students with an M.S. and for 5-6 years for students without an M.S.* Support may be available for an additional year if warranted. More than 6 years of financial support requires special justification. While critical times to have a committee meeting are listed below, you are expected to arrange one on an annual basis to discuss progress and goals. Refer to (<http://gradcollege.okstate.edu>) for Graduate College deadlines, forms, and information.

Completed	Semester	Required Action Initiated by Student
	1	Select Major Advisor and Advisory Committee.
	1-3	Meet with Committee and develop Plan of Study to fulfill course requirements. Submit approved Plan of Study to Graduate College.
	3	Submit, defend, and obtain committee approval for Research Proposal (~10-20 pages). Provide to the PBEE Administrative Assistant a copy your approved proposal and final approval form signed by the Committee and the Admission to Doctoral Candidacy form. Should you wish to enroll in reduced credit while holding a TA or RA, submit the Form for Reduced Credit Enrollment to the Graduate College.
	4	Present seminar to PBEE Department based on Research Proposal. Schedule this with seminar coordinator during the semester prior to it. If you presented an M.S. seminar and then switched to the Ph.D. program, you must present a second seminar based on your Ph.D. Research Proposal. This seminar may precede full proposal approval from Committee.
	4	Complete required coursework and take Qualifying Exams.
	6	Complete bulk of data collection and analyses. Meet with Committee to discuss dissertation and expected manuscripts. Discuss submitting manuscripts as they come to completion rather than at the end of your program.
	7-9	Format dissertation following Graduate College guidelines; attend required Grad College workshop before the semester you plan to graduate. A word to the wise: Do not postpone writing to the 11th hour.
	7-9	Present finishing seminar on dissertation research. If this seminar also serves as your defense seminar (described below), this must be approved in advance by your advisory committee, be presented no more than two weeks prior to your defense, and publicized as such. This seminar must be publicized two weeks in advance by posting flyers in the Department and having the Departmental secretary send an email to all members of the PBEE Department and all participating Ph.D. Plant Biology departments.
	7-9	Set Dissertation Defense Date, paying attention to Graduate College deadlines. A provisional draft already reviewed by your major advisor must be given to the Committee at least 6 weeks before the Graduate College deadline, and a defensible draft must be provided to the Committee at least 2 weeks in advance of the defense. The Graduate College requires that you make an oral presentation that is open to the public at your defense. The seminar described above <u>may</u> serve as this seminar, but otherwise it should be presented on the day of your defense. This seminar must be publicized 2 weeks in advance as described in previous paragraph.
	10	Follow Graduate College guidelines for dissertation submission. An electronic copy must be provided to the PBEE Administrative Assistant.
	10	Arrange an exit interview with the Department Head or Graduate Coordinator. Return keys and complete separation agreement with major advisor and unit assistant.

PBEE Graduate Research Proposal Approval Form

Name: _____

M.S. _____ Ph.D. _____ other (list) _____

Title of Research Proposal:

Date of Submission to Committee _____

Date of Final Approval: _____

Signatures:

Advisor: _____

Committee Member: _____

Committee Member: _____

Committee Member: _____

Outside Committee Member (if Ph.D.): _____

*Attach signed form to approved proposal and provide copy to PBEE Unit Assistant.

PBEE Ph.D. Qualifying Exam Report

Provide original, signed copy to PBEE Administrative Assistant.

Written portion. Committee members print name and sign, indicating whether student passed or not.

<u>Printed name</u>	<u>Signature/Date Pass (Yes or No*)</u>
Advisor	_____
Committee Member	_____
Committee Member	_____
Committee Member	_____
Outside Committee Member	_____

*If student does not pass the Written portion of the exams, Advisor will provide and attach written statement to this form on what student needs to complete to advance to the Oral portion of the exams, that has been signed and dated by advisor and student.

Oral portion.

<u>Printed name</u>	<u>Signature/Date Pass (Yes or No)</u>
Advisor	_____
Committee Member	_____
Committee Member	_____
Committee Member	_____
Outside Committee Member	_____

**PBEE GRADUATE STUDENT ANNUAL PROGRESS AND DEVELOPMENT REPORT
DUE TO ADVISOR, JANUARY 31 (STUDENTS WILL BE PROVIDED AN ELECTRONIC
COPY IN EARLY JANUARY)**

Name:

Period under review: January _____ to December _____
(year) (year)

Graduate advisor: Program:

I am requesting a TA for the following academic year for (check one):

_____ **Fall only**

_____ **Spring only**

_____ **Both semesters**

Year and Semester entered program: Courses completed toward degree:

<i>Year</i>	<i>Course</i>	<i>Grade</i>
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Date Advisory Committee selected, members of Advisory Committee:

Date plan of study (POS) submitted:

Date research proposal submitted to Advisory Committee:

Date research proposal approved by Advisory Committee:

Date PBEE Department seminar(s) given:

Date comprehensive exams taken (Ph.D. only):

Funded or submitted research proposals:

Published or submitted manuscripts:

Manuscripts in preparation:

Presentations:

Teaching: Service:

Title of Project chosen for research, and progress in this area:

Reflections on last academic year:

Goals for remaining graduate career: Coursework:

Research:

Products (posters, presentations, publications): Teaching:

Service: Other:

All students must attach:

- **evaluation statement from faculty advisor who supervised TA performance**
- **current Curriculum Vitae**
- **current transcript**

Signed copies of approved documents must be submitted by all students to the Unit Assistant as they are completed and attached to this Annual Review.

- *Graduate College Plan of Study*
- *PBEE Research Proposal and Approval Form*
- *PBEE PhD Qualifying Exam Report*
- *Graduate College Advance to Candidacy Application (PhD only)*
- *Graduate College Reduced Enrollment form (PhD only)*

Following the meeting of the mentor and student and their signature of the final letter, it should be provided to the advisory committee and signed as follows:

Advisory Committee signatures acknowledging having read the A&D:
