ENTOMOLOGY GRADUATE STUDENT HANDBOOK

Department of Entomology
Washington State University
Pullman, Washington 99164-6382

Updated August 29, 2014

Contact Information:
Doris Lohrey-Birch
Academic Program Coordinator
PO Box 646382
FSHN 166
Pullman, WA 99164-6382

509-335-5422
dory.lohrey-birch@wsu.edu
DEPARTMENTAL REQUIREMENTS FOR ADVANCED DEGREES

The requirements and procedures given here are in addition to and not in lieu of, those contained in the Graduate School Policies and Procedures Manual (http://gradschool.wsu.edu/CurrentStudents/PoliciesAndProcedures/). Consult the Manual for the basic Graduate School requirements, which are not repeated here except in summary form at the end of this handbook.

ENTOMOLOGY DEPARTMENT PHILOSOPHY

The Department of Entomology at Washington State University, in addition to serving the goals of the College of Agriculture, Human, and Natural Resource Sciences and the general university, specifies a Departmental philosophy. The Department seeks excellence from every faculty member and strives to promote excellence in student endeavors. The primary function of the Department is service to the citizens of the State of Washington through teaching, research and extension. Specifically, the Department strives to apply existing knowledge toward the solution of entomological problems and, when such knowledge is not available, to develop research programs that generate the needed information. The Department provides a course curriculum that prepares students in concepts of Entomology appropriate to the goals of the individual student. The Department further strives to maintain a balance between basic and applied science in its programs to meet immediate and future needs of society.

A. ADMISSIONS REQUIREMENTS

The departmental Graduate Admissions Committee, and the Department Chair, review all applications and recommend to the faculty whether a candidate should be considered for acceptance into a particular laboratory group.

Undergraduate Preparation

No specific undergraduate major is required. Table 1 lists specific departmental requirements at the undergraduate level. The Admissions Committee will review transcripts of admitted students and indicate to the student and to the student's Advisor any course deficiencies.

Foreign Student Language Requirement

All international applicants must demonstrate a basic proficiency in English by submitting official Test of English as a Foreign Language (TOEFL), International English Language Testing System (IELTS), or Michigan English Language Assessment Battery (MELAB) test scores. Scores must be less than two years old and sent directly to the Graduate School from the Educational Testing Service. The Education Testing Service reporting code for Washington State University is 4705 (for the TOEFL only).

Graduate Student Assistantships

Available assistantships will be offered prior to the beginning of each semester. In conformity with the Council of Graduate Schools Resolution (https://www.cgsnet.org/ckfinder/userfiles/files/CGS_Resolution.pdf), a student may submit a
written resignation of an appointment accepted prior to April 15. However, after that date the student may not accept another offer without first obtaining a written release from the institution to which a commitment had been made. An offer made after the semester begins is conditional on presentation by the student of a written release from any previously accepted offer.

B. COMMITTEE SELECTION

All graduate students must reach agreement with a major advisor to supervise their degree program, as a condition of acceptance into the graduate program. A student having an advisor from the research faculty outside of Pullman will have a member of her/his committee designated as an on-campus advisor while the student is on campus. During the first semester the student, in consultation with his/her advisor, selects a committee of not less than 3 faculty for MS and PhD. For MS and PhD students at least two members of the committee must be permanent WSU tenure/tenure-track faculty in the Entomology Department.

Selection of committee members should be done in consideration of the student's interests and experience and in consultation with the major professor. The student will work with this committee to select appropriate courses, submit an approved Program of Study, develop a research program, and to review and approve the M.S. thesis or Ph.D. dissertation (http://gradschool.wsu.edu/CurrentStudents/PoliciesAndProcedures/).

Student advisory committees are to meet at least once each year. Changes in the Committee, necessitated by absence of a committee member or other reasons, may be made at any time by filing appropriate forms with the Graduate School (http://gradschool.wsu.edu/Documents/PDF/ChangeCommittee.pdf).

C. PUBLIC PRESENTATION OF RESEARCH AND STUDY

For all graduate degrees, each student will be required to give a seminar describing his/her research and study activities as a partial fulfillment of the requirements for the degree. It is expected, whenever possible, that the student will give this seminar during the Department’s normally-scheduled Department Colloquium series. The student is responsible for scheduling the seminar and arranging for its announcement with the Chair of the Colloquium Committee.

D. ANNUAL REVIEW OF PROGRESS

In April of each year, each graduate student will prepare a summary of accomplishments that the student's advisor will review, amend, and endorse to the Chair. Each student will then be interviewed by the Chair. Following the review and interview each student will receive from the Chair a statement analyzing his/her progress with recommendations for any necessary improvement. According to Graduate School policy, students who are not making adequate progress in their research will be given a “U” in their 700- or 800-research credits. If the student receives two “U” grades, he/she becomes academically deficient and can be terminated from the program. The student can be reinstated if the program chair petitions the Dean of the Graduate School for approval to reinstate the student. The program chair must identify conditions for continuation of study in the petition request. If approved, the student will have one semester or
summer session to improve his/her research progress. This policy, and the policy on maintaining a 3.0 GPA can be found in the Graduate School Policies and Procedures (http://gradschool.wsu.edu/policies-procedures/) As required by the Graduate School, the names of students not making satisfactory progress will be reported to the Graduate School during May and appropriate action of termination or denying financial support will be taken if necessary.

MASTER OF SCIENCE DEGREE OVERVIEW

The Master's degree may be a terminal degree or may be a preparatory phase of the Ph.D. program. Specific course requirements are listed in Tables 1-2. Other courses may be selected by the student and committee to meet the student's interests up to or exceeding the 21 hours (26 hours for non-thesis) of graded course work required by the Graduate School. Please refer to the Graduate School Policies and Procedures Manual for the most up-to-date information on this policy (http://gradschool.wsu.edu/CurrentStudents/PoliciesAndProcedures/).

Thesis Option: The student conducts original laboratory or field research and writes an acceptable thesis based on that research. The form, style, and content of the thesis must be approved by the Committee and follow the Graduate School guidelines (http://gradschool.wsu.edu/Documents/PDF/Dissertation_Theses_Submission_Guidelines_FINA L12202013.pdf). The thesis should also conform to the CBE Style Manual (6th Ed), usually in the style of a recognized peer-reviewed scientific journal so that it may be submitted for publication with a minimum of revision. Publication of the thesis is strongly encouraged.

The final examination is a public oral examination. The focus of the examination will be determined by the thesis committee and will cover some/all of the following areas: (1) general knowledge of biology and entomology; (2) insect taxonomy; (3) applied entomology; (4) ecology; (5) evolution; (6) insect physiology; and (7) the research thesis. Other areas of specialization may also be covered at the discretion of the committee. As per Graduate School policy, if the exam is held over AMS, at least one committee member must be physically present in the room with the student (http://gradschool.wsu.edu/CurrentStudents/PoliciesAndProcedures/).

The examining committee consists, at a minimum, of all members of the thesis committee. According to Graduate School policy, the examination shall not exceed two-and-one half-hours including the student’s seminar presentation. To assure adequate coverage of the field and fairness of questioning, the examining committee will convene 15 minutes prior to the examination to discuss the appropriateness of the questions and the level of competence expected of the student. Each member of the examining committee will have at least 15 minutes to question the student. Further questions may be asked by any participating graduate faculty member, with the remainder of the exam time divided among those Graduate Faculty present desiring to question the student and follow-up questions from the committee. However, to vote, faculty must attend the entirety of the exam and participate in the entirety of the post-exam faculty discussion. The major professor and examining committee are encouraged to keep notes on questions and answers in the event of controversy.
In the event of failure, the student will be given an opportunity to re-take the exam a second time with a member of the Graduate Mentor Academy, appointed by the Graduate school, present. The only exception to this is if a Graduate Mentor was present at the first exam and agrees in consultation with the committee that a second exam is not warranted. A student who has failed two exams will be terminated from the Graduate School. Graduate students have the right to an appeal if there are procedural irregularities or extenuating circumstances (please refer to the Graduate School Policy and Procedures Manual for details on the appeals process; http://gradschool.wsu.edu/CurrentStudents/PoliciesAndProcedures/Chapter7/AcademicPolicies.html).

**Teaching Requirement:** Collegiate teaching experience is recommended of all M.S. candidates at the discretion of the major advisor. Methods of meeting the teaching recommendation include, with the consent of the instructor and the major advisor, one or more of the following: (1) the preparation, introductory remarks and conduct of at least 3 laboratory sessions for a course; (2) presentation of 3 lectures; or (3) other method approved by the student's advisor in consultation with the Entomology Chair such as extension presentations to stakeholders. No monetary compensation will be paid except for students on a TA appointment. The instructor in charge will prepare an evaluation of the student's teaching performance either by letter or by completing a teaching evaluation form to be placed in the student's file.

**Non-thesis Masters:** This option is for students not planning on a research career but who are seeking broad training in entomology. While candidates may continue toward a doctoral degree following this degree, it normally is considered to be a terminal degree. Students must submit a program of study by the end of their 2nd semester and adhere to the minimum requirements of the Graduate School. In addition, the Department requires a scholarly review article written in the style of an “Annual Review of Entomology” or other review-type article in our discipline that will be reviewed by the student’s advisory committee for successful completion of the non-thesis Masters degree. The review article will be available for viewing by all Entomology faculty at the time it is provided to the advisory committee. A copy of the approved article will be deposited in the Entomology Department library.

A minimum of **30 hours of total credits**, including 26 hours of graded coursework, is required. Of these, 17 hours must be at the 500-level and 9 hours maximum can be non-graduate (300-400 level) graded coursework. There is a 4-hour minimum requirement of 702 credits in the major, 2 of which must be taken in the final semester of completion of degree. As with the thesis, a paper or electronic copy of the scholarly review paper will be filed by the Department at the WSU Owen Library either in hardback or electronic form. The examination will follow the same format as for the thesis option, except that the non-thesis student will be expected to defend their scholarly review paper (instead of their thesis research project).

**SUMMARY OF PROCEDURES FOR M.S. STUDENTS**

1. **Apply for Admission.** Applications need to be submitted directly to the graduate school at WSU (http://gradschool.wsu.edu/futurestudents/apply.html). Applicants are required to submit an application letter, transcripts, GRE scores, and two letters of recommendation to be considered by the Entomology Department Graduate Admissions Committee. Applications are considered on a rolling basis, but students applying for Fall Semester will receive priority if they
apply by February 1; students applying for Spring Semester admission will receive priority if they apply by September 1. Students are encouraged to contact potential major advisors prior to submitting application materials. Questions regarding the application process can be directed to the Entomology Graduate Student Coordinator, Doris Lohrey-Birch (dory.lohrey-birch@wsu.edu).

2. Obtain an Advisor. Students will not receive an offer of admission to the Graduate Program in Entomology unless they have obtained a major advisor who has agreed to supervise their graduate program. As stated above, students are encouraged to contact potential advisors prior to applying for admission. Students who have not contacted potential advisors prior to admission will still be reviewed, but will typically receive lower priority in the admission process.

3. Registration for First Semester. Prior to starting, students should consult with their major advisor to determine their schedule of classes for their first semester. Registration for classes is done online via the zzuasis.wsu.edu system or its replacement. The most-current information about courses, dates, and availability can be found online in the WSU University Catalog or the WSU Schedule of Classes. Students will receive information about how to log in to this system in their official offer of admission from the graduate school at WSU. A full-time student is expected to take 10 credits per semester (including research credits). Questions regarding course registration can be directed to the Entomology Graduate Student Coordinator, Doris Lohrey-Birch (dory.lohrey-birch@wsu.edu).

4. Establishing Residency. Domestic students are strongly encouraged to begin the process of establishing residency immediately after beginning their graduate program. For example, students need to register their vehicle (if applicable) and obtain a Washington driver’s license within the first month they live in Washington. Other information about establishing residency can be found here: http://residency.wsu.edu/. Students will receive a non-resident tuition waiver only in their first year, and students who fail to establish residency in their first year will be responsible for the non-resident portion of their tuition in subsequent years. Please consult the website above and/or contact the graduate student residency office by email (gradschool@wsu.edu) or in person (Room 324, French Administration Building, Pullman Campus) to obtain additional information on establishing residency.

5. Select a Committee. All students are required to have an advisory committee as part of their graduate program. Students should select their committee members in their first year (preferably in their first semester) in consultation with their major advisor (see Committee Selection on Page 3). The advisory committee should meet at least once a year. Any changes to the student’s committee after it is formed and the Program of Study (see #6 below) is approved must be made officially through the graduate school (http://gradschool.wsu.edu/Forms/).

6. Submit Program of Study. All students are required to develop and submit a Program of Study in consultation with their major advisor and their advisory committee. The Program of Study template can be found at: http://gradschool.wsu.edu/Forms/.

MS students with a thesis are required to complete not less than 30 hours of approved graduate credits including a minimum of 21 hours of graded coursework and 4 hours of ENTOM 700,
Master’s Research. Of these 21 hours of coursework, up to 6 credits of non-graduate level (300- or 400-level) coursework may be used.

**MS students in the non-thesis option** are required to complete not less than 30 hours of approved graduate credit including a minimum of 26 hours of graded coursework and 4 hours of 702, Master’s Special Problems, Directed Study (All courses are listed at [http://www.catalog.wsu.edu/Pullman/Academics/Courses/ENTOM](http://www.catalog.wsu.edu/Pullman/Academics/Courses/ENTOM)). Of these 26 hours of coursework, up to 6 credits of non-graduate level (300- or 400-level) coursework may be used.

The Program of Study must be approved by all members of the advisory committee and the department chair. Students will be informed by the graduate school once their program of study has been approved or if it requires modification.

**7. Research.** Students are advised to discuss the research component for their MS Thesis in consultation with their major advisor, their advisory committee, other faculty, and other students. Students are typically more successful if they identify their research areas quickly after arriving in the graduate program. Students in the thesis option will produce a thesis, which is a scholarly, original study that is a significant contribution to the knowledge of the chosen discipline.

**8. Apply for degree.** Students need to apply for their degree mid-way through the semester before they plan to conduct their final examination. It is the student’s responsibility to be aware of deadlines in their last two semesters. The Application for Degree form (found at [http://gradschool.wsu.edu/Forms/](http://gradschool.wsu.edu/Forms/)) must be submitted to the Graduate School and the graduation fee must be paid before the final exam is scheduled. See the following page for information about applying for the degree: [http://gradschool.wsu.edu/CurrentStudents/index1.html](http://gradschool.wsu.edu/CurrentStudents/index1.html)

**9. Thesis Timeline.** The student is expected to work closely with their major advisor to revise and edit the thesis before sending it to the advisory committee for approval. The advisory committee should get a minimum of 10 working days to review the thesis, although this is at the discretion of the advisory committee. After the thesis has been reviewed and approved by the advisory committee, **students must submit their approved thesis to the department chair and the department’s graduate coordinator at least 10 working days prior to the final scheduled thesis defense** (see #8 above; this is a graduate school requirement). The graduate coordinator will make the thesis available on the Department’s SharePoint site so that all faculty can review the thesis prior to the final defense.

**10. Final Oral Examination.** A final examination or ballot meeting is required of all master’s candidates. This examination is intended to test the candidate’s ability to carry out a critical dialogue that includes analyzing, synthesizing and evaluating material in the major and supporting fields (with emphasis on the work presented in the thesis or special problem). Non-thesis master’s degree students may not have a formal examination; however, the committee must hold a ballot meeting, scheduled by the Graduate School, to determine if the student has satisfactorily met all of the program requirements. The student must have completed or be enrolled in all of the required course work, have a minimum cumulative GPA of 3.0, have met all admission contingencies, and be registered for the remainder of their research credits: a minimum of two credits of 700 (thesis option) or 702 (non-thesis option) for the semester or summer session in which the final examination is to be taken. The scheduling form must be submitted to the Graduate School **10 (ten) or more** working days prior to the anticipated
examination. For thesis options, the candidate must present a typed complete draft copy of the thesis with the scheduling form.

11. Submitting Final Thesis to Graduate School (Thesis Option Only). After passing the final examination, an electronic copy of the corrected thesis must be submitted following the Graduate School’s guidelines for digital submission within five working days of the final oral examination. Students should use the Final Dissertation/Thesis Acceptance Checklist when preparing the electronic copy for submission. In addition, the following must be submitted to the Dissertation/Thesis Acceptance clerk in the Graduate School within five working days of the final oral examination. All students must submit a 100% cotton fiber paper copy of the title page, abstract page, and signature page signed in black ink by all committee members. All students must submit a completed Hold Harmless/Copyright Acknowledgement form. The WSU Graduate School requires a fully digital PDF version of the master’s thesis per the Digital Dissertation and Thesis Guidelines on the Graduate School’s website. The Graduate School will continue to perform the format check and provide guidelines to students when scheduling their final defense.

* Addendum: Programs of study for Thesis and non-thesis options

Program of Study for Thesis MS

- 30 hours minimum total credits
- 21 hours minimum graded courses (at least 15 must be 500-level)
- 6 hours maximum of non-graduate (300-400) course may be used towards the 21 credits
- 4 hours minimum 700-level research credits
- 2 hours of research credits or 702 credits must be taken in the semester student will be graduating.

***********************

Program of Study for Non-Thesis MS

- 30 hours minimum total credits
- 26 hours minimum graded courses (at least 17 must be 500-level)
- 9 hours maximum of non-graduate (300-400) course may be used
- 4 hours minimum 702-level research credits

***********************

10 hours per semester is the normal load for full time students.
Website for the most up-to-date information: http://www.gradsch.wsu.edu/Forms/
DOCTOR OF PHILOSOPHY DEGREE OVERVIEW

In pursuit of a Ph.D. degree in Entomology, the student should: (1) attain knowledge of basic biological and scientific principles at a greater depth than for a M.S.; (2) be familiar with the history of entomology and biology and current problems in entomology; and (3) have a knowledge of entomological literature and methods. The dissertation should demonstrate an ability to plan, execute and synthesize original research focused on entomological problems.

The objective of Ph.D. dissertation research is to train students in all aspects of scientific endeavor including: (1) selecting a potential problem and designing experiments to test hypotheses; (2) performing field and/or laboratory experiments designed to observe biological and/or behavioral events; (3) preparing research proposals which would be acceptable to major funding sources (NSF, NIH, USDA, etc.); (4) analyzing biological data using current techniques; and (5) interpreting results with reasonable extrapolation and speculation on the significance of the research and future directions. The Ph.D. dissertation research should form a cohesive and significant piece of work, carried out in a professional and competent manner, which leads to the advancement of scientific knowledge.

Oral Research Proposal: Before the Oral Preliminary Examination, the student must present a formal Oral Research Proposal to the faculty and students. Faculty and students will be notified at least one week before the oral presentation. The oral presentation will usually be made during the regular Department Colloquium period, but under extenuating circumstances, and with the approval of the student’s committee and the Department Chair, can be made at a specially scheduled time. Following a presentation of not more than 40 minutes, the candidate will respond to questions and suggestions, which is open to the WSU community. The proposal, oral presentation, and subsequent questioning, is required to evaluate the student’s ability to analyze and interpret scientific literature, design experiments, communicate with other scientists, and to assess the student’s awareness of current developments in entomology. Students are strongly encouraged to make the Oral Research Presentation as early in their program as possible.

Written Research Proposal: Each student will prepare a written research proposal that is due by the end of the third semester. The proposal should be suitable for submission to a federal fund-granting agency. During the semester that the written research proposal is due, the student will enroll for a minimum of 2 hours of ENTOM 800 research credit for preparation of the proposal. Electronic copies of the proposal will be sent to each committee member. Also, an electronic copy of each proposal will be placed on the departmental SharePoint site to be made available to all faculty. All faculty will be notified by email when a proposal is uploaded to SharePoint. Faculty then will have 30 days to vote whether the proposal is acceptable; a simple majority voting “unacceptable” will send the proposal back to the student, advisor and committee for revision and eventual resubmission to the faculty. All votes of “unacceptable” must be accompanied by a brief, written justification for this recommendation. The research proposal should follow the format of an NSF, USDA, or EPA grant application, or an example template prescribed by the Department of Entomology. It is expected that, whenever possible, this proposal will be submitted to a granting agency to be considered for funding.

Oral Preliminary Doctoral Examination: When a student has completed all or most course work, has given their research proposal presentation, and completed their written research
A meeting of all faculty intending to question the candidate is held immediately before the examination to determine the nature of the questions and answers in the event of disputes. There is no time limit on the examination. Procedures in the event of failure are outlined below, and at: http://gradschool.wsu.edu/CurrentStudents/PoliciesAndProcedures/Chapter8/DoctoralPolicies.html

**Teaching Requirement:** Collegiate teaching experience is required of all Ph.D. candidates and should be undertaken with the advice of the Ph.D. committee. The student’s graduate advisory committee must view and approve each PhD student’s plan to meet the teaching requirement, working in consultation with the Department Chair. Each PhD student must submit their plan to meet the departmental teaching requirement, in writing, to this committee by the end of the student’s third year in the PhD program. The approved plan will then be added to the student’s file. A minimum of one semester of teaching involvement is suggested. In addition to serving in a Teaching Assistantship, other methods of meeting the teaching requirement for a semester include, with the consent of the instructor and the Ph.D. advisory committee: (1) the preparation, introductory remarks, and conduct of at least 3 laboratory sessions for an entomology course; (2) presentation of 3 lectures; or (3) some other method approved by the student's advisor in consultation with the Entomology Chair such as extension presentations or workshops to stakeholders. No monetary compensation will be paid except for students on a TA appointment. The instructor or Professor in charge will prepare an evaluation of the student's teaching performance either by letter or by completing a teaching or extension presentation evaluation form to be placed in the student’s file.

**Dissertation & Final Doctoral Examination:** The form, style, and content of the thesis must be approved by the committee and follow the Graduate School guidelines (http://gradschool.wsu.edu/Documents/PDF/Dissertation_Theses_Submission_Guidelines_FINAL122013.pdf). Publication of the thesis is strongly encouraged. The oral Final Doctoral Examination is conducted under Graduate School policy (http://gradschool.wsu.edu/CurrentStudents/PoliciesAndProcedures/).
SUMMARY OF PROCEDURES FOR PH.D. STUDENTS

Complete WSU policies and procedures for doctoral students are found at: http://gradschool.wsu.edu/CurrentStudents/PoliciesAndProcedures/Chapter8/DoctoralPolicies.html. Steps towards completing the Ph. D. degree, including those specific to the Entomology Department, are:

1. **Apply for Admission.** Applications need to be submitted directly to the graduate school at WSU (http://gradschool.wsu.edu/futurestudents/apply.html). To be considered by the Entomology department graduate admissions committee, applicants are required to submit an application letter, transcripts, GRE scores, and two letters of recommendation. Applications are considered on a rolling basis, but students applying for Fall Semester will receive priority if they apply by February 1; students applying for Spring Semester admission will receive priority if they apply by September 1. Students are encouraged to contact potential major advisors prior to submitting application materials. Questions regarding the application process can be directed to the Entomology Graduate Student Coordinator Doris Lohrey-Birch (dory.lohrey-birch@wsu.edu).

2. **Obtain an Advisor.** Students will not receive an offer of admission to the Graduate Program in Entomology unless they have arranged a major advisor who has agreed to supervise their graduate program. As stated above, students are encouraged to contact potential advisors prior to applying for admission.

3. **Registration for First Semester.** Prior to starting, students should consult with their major advisor to determine their schedule of classes for their first semester. Registration for classes is done online via the zzsis.wsu.edu. The most current information about courses, dates, and availability can be found online in the WSU University Catalog or the WSU Schedule of Classes. Students will receive information about how to log into this system in their official offer of admission from the WSU graduate school. A full-time student is expected to take 10 credits per semester (including research credits). Questions regarding course registration can be directed to the Entomology Graduate Student Coordinator, Doris Lohrey-Birch (dory.lohrey-birch@wsu.edu).

4. **Establishing Residency.** Domestic students are strongly encouraged to begin the process of establishing residency immediately after beginning their graduate program. For example, students need to register their vehicle (if applicable) and obtain a Washington driver’s license within the first month they live in Washington. Other information about establishing residency can be found here: http://residency.wsu.edu/. Students will receive a non-resident tuition waiver only in their first year; students who fail to establish residency in their first year will be responsible for the non-resident portion of their tuition in subsequent years. Please consult the website above and/or contact the graduate student residency office by email (gradschool@wsu.edu) or in person (Room 324, French Administration Building, Pullman Campus), to obtain additional information on establishing residency.

5. **Select a Committee.** All students are required to have an advisory committee as part of their graduate program. Students should select their committee members by the beginning of the third semester of study; the advisory committee should meet at least once a year. Changes to the
student’s committee after its formation (and approval of the Program of Study, see #6) need to be made through the graduate school (http://gradschool.wsu.edu/Forms/) using the Committee Change form.

6. Submit Program of Study. All students are required to develop and submit a Program of Study in consultation with their major advisor and their advisory committee. The Program of Study template can be found at: http://gradschool.wsu.edu/Forms/. PhD students are required to complete not less than 72 hours of approved graduate credits, including a minimum of 34 hours of graded coursework and 20 hours of ENTOM 800 (Ph.D. Research). Of these 34 hours of coursework, up to 9 credits of non-graduate-level (300- or 400-level) coursework may be used. A minimum of two credit hours must be taken in the final semester before the degree is awarded. The Program of Study must be approved by all members of the advisory committee and the Department Chair. Students will be informed by the Graduate School once their program of study has been approved, or notified that it requires modification.

7. Research. Students are advised to develop the research component of their dissertation in consultation with their major advisor, their advisory committee, other faculty, and other students. Students are typically more successful if they identify their research areas quickly (within the first two semesters) after starting their graduate program.

8. Oral Research Proposal Presentation. Before the Oral Preliminary Exam can be completed, the student must present their research plan to the faculty and students, for feedback and criticism. This will normally be scheduled as part of the department’s weekly Colloquium speaker series.

9. Oral Preliminary Examination. Requirements for the Oral examination follow those dictated by the WSU graduate school (http://gradschool.wsu.edu/CurrentStudents/PoliciesAndProcedures/Chapter8/DoctoralPolicies.html). The oral examination is held after the majority of coursework, and the Oral Research Proposal, has been completed, and with approval by the student’s major advisor. The oral preliminary exam must be scheduled at least 10 working days before the examination is to be held, using the Preliminary Examination Scheduling Form (http://gradschool.wsu.edu/Documents/PDF/PrelimSched.pdf). The student must be registered for two hours of Entom 800 at the beginning of the semester in which the exam is scheduled, and have a GPA \( \geq 3.0 \). Any faculty member may attend the exam and ask questions; if they attend for the entire exam and question the candidate, they may vote (per Graduate School policy). All doctoral committee members must be present and must vote. Exam sessions must be suspended if any voting faculty member leaves the session (even briefly). There is no time limit to these exams, except that exams must be completed within 30 days of their initiation, as per WSU Graduate School policy. To pass, three-fourths of those voting must be favorable. If a student fails, a second and final examination must be scheduled at least three months later, with the scheduling form submitted at least fifteen days before the exam date (allowing time for a member of the Graduate Mentor Academy to be assigned to attend the exam, as arranged by the Graduate School). A second failed exam leads to termination. With the consent of the examined student, Entomology graduate students are allowed to attend the Oral Preliminary Exam in an
observational role only. Retakes following a failed examination are restricted to faculty participation only.  
(http://gradschool.wsu.edu/CurrentStudents/PoliciesAndProcedures/). At least four months must pass between completion of the preliminary exam, and scheduling of the final oral examination.

10. Written Research proposal. Doctoral students will (1) prepare a written research proposal prior to their research proposal presentation and (2) make this proposal available to committee members and other faculty for their approval as described previously.

11. Apply for degree. Students need to apply for their degree mid-way through the semester before they plan to conduct their final examination. The Application for Degree form (found at http://gradschool.wsu.edu/Forms/) must be submitted to the Graduate School and the graduation fee must be paid before the final exam is scheduled. It is the responsibility of the graduate student to be aware of and to meet these deadlines. See the following page for information about applying for the degree: http://gradschool.wsu.edu/CurrentStudents/index1.html

12. Dissertation Timeline. The student is expected to work closely with their major advisor to revise and edit the dissertation before sending it to the advisory committee for approval. The advisory committee should get a minimum of 10 working days to review the dissertation, although this is at the discretion of the advisory committee. After the thesis has been reviewed and approved by the advisory committee, students must submit their approved dissertation to the department chair and the department’s graduate coordinator at least 10 working days prior to the final scheduled thesis defense (this is a graduate school requirement). The graduate coordinator will make the dissertation available on the Department’s SharePoint site so that all faculty can review the thesis prior to the final defense.

13. Final Oral Research Presentation. An oral presentation describing the dissertation research precedes the Final Oral Examination, and should be scheduled as part of the regular Colloquium schedule if possible.

14. Final Oral Examination. A final examination is required of all Ph.D. candidates. This examination is intended to test the candidate’s ability to critique, justify, assess, and evaluate material in the major and supporting fields with emphasis on the work presented in the dissertation. The student must have completed (or be enrolled in) all required course work, have a minimum cumulative GPA of 3.0, have met all admission contingencies, and be registered for the remainder of their research credits. Note that a minimum of two credits of Entom 800 must be taken during the semester or summer session in which the final examination is to be taken. The scheduling form (http://gradschool.wsu.edu/Documents/PDF/SchedulingPack%20MS%20PhD.pdf ) must be submitted to the Graduate School 10 (ten) or more working days prior to the final examination. The candidate must present a typed, complete draft copy of the dissertation along with the scheduling form. This draft must conform to WSU Graduate School guidelines (see #13 below).

15. Submitting Final Dissertation to Graduate School. After passing the final examination, an electronic copy of the corrected dissertation must be submitted, following the Graduate School’s guidelines for digital submission, within five working days of the final oral examination.
Students should use the Final Dissertation/Thesis Acceptance Checklist when preparing the electronic copy for submission. To summarize, the following must be submitted to the Dissertation/Thesis Acceptance clerk in the Graduate School within five working days of the final oral examination: (1) a 100% cotton fiber paper copy of the title page, abstract page, and signature page signed in black ink by all committee members; (2) a completed Hold Harmless/Copyright Acknowledgement form; and (3) a fully-digital PDF version of the doctoral dissertation per the Digital Dissertation and Thesis Guidelines on the Graduate School’s website. The Graduate School performs the format check and provides guidelines to students when scheduling the student’s final defense.

Program of Study for PhD

- 72 hours minimum total credits
- 34 hours minimum graded graduate-level (500-level) courses.
- 9 hours maximum of non-graduate course (300- or 400-level courses) may be used towards the 72 total credits
- 20 hours minimum 800-level research credits
- Courses for audit or S/F may not be used for the program of study but can be noted on the Research and Additional studies section.
- 2 hours of research credits must be taken in the semester student will be finishing.

10 hours per semester is the normal load for full time student.

Websites for the most up-to-date information:

**Policies and procedures:** [http://gradschool.wsu.edu/CurrentStudents/PoliciesAndProcedures/](http://gradschool.wsu.edu/CurrentStudents/PoliciesAndProcedures/)

**Forms and deadlines:** [http://gradschool.wsu.edu/Forms/index.html](http://gradschool.wsu.edu/Forms/index.html)

If you have questions contact:

Doris Lohrey-Birch  
Academic Secretary  
Entomology Department  
Washington State University  
Pullman, WA 99164-6382  
509-335-5422  
[duy.ohrey-birch@wsu.edu](mailto:dory.lohrey-birch@wsu.edu)
APPLICATION OF RULES

All graduate students are bound by the provisions of the written Departmental requirements that are in effect at the time the student receives approval for the Graduate Program of Study, unless the student states in writing their acceptance of new rules adopted after that time. Graduate School Policies and Procedures are updated annually, and all graduate students are required to abide by and meet the regulations and policies set forth in the most current and revised Graduate School Policies and Procedures Manual (http://gradschool.wsu.edu/CurrentStudents/PoliciesAndProcedures/).

Table 1. Courses required at the undergraduate level. Students lacking such courses or their equivalents must take them in addition to their graduate program. Exceptions to these requirements may be made by a majority vote of the student’s graduate committee.

<table>
<thead>
<tr>
<th>SUBJECT:</th>
<th>SUITABLE WSU COURSES</th>
</tr>
</thead>
<tbody>
<tr>
<td>General Entomology</td>
<td>ENTOM 343</td>
</tr>
<tr>
<td>General Genetics</td>
<td>MBioS301</td>
</tr>
<tr>
<td>Introductory Ecology</td>
<td>BIOL 372</td>
</tr>
<tr>
<td>Chemistry</td>
<td>CHEM 332</td>
</tr>
<tr>
<td>Plant Science</td>
<td>BIOL (BOT) 318, 320 or HORT 201 or 304</td>
</tr>
</tbody>
</table>

Table 2. Additional courses required for M.S./PhD Degree. Students are expected to complete two core courses (Insect Physiology and Insect Taxonomy) and take at least two suitable courses to fulfill two additional knowledge areas: (1) Biometry/Bioinformatics and (2) Ecology/Evolution. Courses that may be used to fulfill these two knowledge areas are listed below. Courses in addition to those below may be deemed acceptable to fulfill the knowledge areas with a majority vote of the student's graduate committee.

<table>
<thead>
<tr>
<th>SUBJECT:</th>
<th>SUITABLE WSU COURSES</th>
</tr>
</thead>
<tbody>
<tr>
<td>Insect Physiology</td>
<td>ENTOM 550</td>
</tr>
<tr>
<td>Insect Taxonomy</td>
<td>ENTOM 539 or 540</td>
</tr>
<tr>
<td>Ecology/Evolution (knowledge area)</td>
<td>ENTOM 541, ENTOM 556-558 (full series), ENTOM 555, BIO 562, VM 501, BIOL 519, BIOL 548, BIOL 564, IPM 552</td>
</tr>
<tr>
<td>Biometry/Bioinformatics (knowledge area)</td>
<td>STATS 512, STATS 530, STATS 520, BIOL 572, MBIOS 578</td>
</tr>
</tbody>
</table>

Additional courses may be required by student's Graduate Advisory Committee.