

Graduate Handbook

DEPARTMENT OF ENTOMOLOGY

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I. Introduction

Welcome to the Department of Entomology at the University of Illinois Urbana-Champaign. Our department prides itself, in part, on successfully training and preparing students for their careers. The department has a rich legacy of graduates continuing on to become leaders in the field and we hope to continue this tradition into the future. The "Graduate Student Handbook" is intended to provide guidance and clarity on what is expected of graduate students by the graduate college, faculty, and the department. Most importantly, the handbook is intended to be a tool to help ensure success of students by providing a single resource on requirements and expectations.

You are now a member of one of the best entomology departments in North America and one of the few in a college of arts and sciences. For many years this department has had an outstanding reputation in insect systematics, physiology, toxicology, and ecology, and we have in recent years raised our profile in neuroscience, evolutionary genetics, genomics, behavior, and conservation biology.

It is upon the productivity and fame of its graduates that the reputation of a department is built. Thus, outstanding students are essential to the success of our program. We expect you to be actively involved in the department from this time forward and hope that you will represent us as well as those who have completed their studies here before you.

II. University Structure

A. The Graduate College

The University of Illinois Urbana-Champaign is organized into 15 college or equivalent academic units. For example, the Dept. of Entomology is part of the College of Liberal Arts and Sciences. However, across all programs, all graduate students at the University are governed by the Graduate College. The mission of the Graduate College (as of 1/2/2019):

"The Graduate College provides campus-wide leadership for the advancement of graduate education; promotes excellence, integrity, and equity in all graduate programs; and serves the scholarly and professional needs of prospective and current graduate students from recruitment and admission through graduation."

The Graduate College works with departments to set policies on admission,

student progress, and degree requirements. Therefore, graduate program requirements are a mixture of Graduate College-level requirements and program-specific requirements. The Graduate College also provide many useful resources and workshops for graduate student development. It is always a good idea to check the <u>Graduate College website</u> for the most up-to-date information on requirements.

General policies are also set for the entire university on academic integrity and expectations to which all students are expected to adhere.

B. School of Integrative Biology

The School of Integrative Biology (SIB) is the overarching organizing body for three departments: Entomology, Plant Biology, and Evolution, Ecology, and Behavior (EEB). As part of this structure, SIB provides professional support for human resources, grants and requisitions, facilities, etc. SIB administration consists of a Director, an Associate Director for Academic Affairs, an Associate Director for Business Affairs, and Administrative Assistant(s). Each department then has its own Head, committees, and graduate degree programs.

The mission of SIB is to promote teaching and research directed toward understanding the mechanisms of organismal function and the evolution and ecology of organisms. The School pursues this focus through a philosophy that integrates across levels of biological organization, from molecular mechanisms to ecosystem levels. It aims for excellence and national visibility for its programs emphasizing research on insect, plant, and animal taxa. The educational approach is one of inclusion, where breadth of training is paramount. In preparation for careers in biological science, health sciences, technology, education, or public service, students achieve proficiency in analytical and quantitative methods as well as a thorough understanding of the paradigms and theories of modern biology. (SIB Bylaws approved 4.28.17)

Undergraduate- and graduate-level courses are offered through SIB and most teaching assistantships available are through SIB as part of the Integrative Biology curriculum. SIB offers many resources for graduate students, including fellowship and grant support. Due to the structure of SIB, many decisions on teaching, fellowships, hiring, promotion and tenure, and other policies and practices are made at this level rather than at the level of individual departments.

C. Department of Entomology

1. Structure

The Department of Entomology at UIUC consists of a department Head, faculty, staff and affiliates. The department office is in 320 Morrill Hall, where the Office Administrator can assist with most graduate student needs.

Close ties exist between the Department of Entomology and other departments and institutions on campus, especially the Illinois Natural History Survey (INHS). Many members of the INHS hold affiliate appointments in the department. This arrangement has served not only to expand the areas of expertise represented by the faculty but also to provide our students with a greater range of opportunities, including in more applied aspects of our science. For a list of affiliate faculty, see the Department of Entomology website.

2. Advisors and Research Advisory Committees

Every graduate student in the program is expected to have an academic advisor who is a member or affiliate of the Dept. of Entomology. Most students will be accepted into the program only with the support of a specific advisor. The job of an advisor is to supervise and assist with student research, monitor student progress in the program, and ensure that students have support. In addition, master's or doctoral committees aid in the design and execution of a master's thesis or doctoral dissertation. As soon as a student's thesis or dissertation topic is identified, the student and their advisor should assemble a "Thesis or Dissertation Committee". This committee should be constituted no later than the end of the student's second semester and the committee should meet annually. It is expected that the committee will work closely with the student through all stages of the research program. Members of these committees must be approved members of the Graduate Faculty at Illinois; if a member is not a member of the Graduate Faculty at Illinois, then they must be approved by the department and/or the Graduate College in order to serve on the Defense Committee. The status of any current faculty member or affiliate can be checked on the **Graduate College Faculty website**. Committees must fulfill the following criteria:

a. Master's Thesis Committee

The Master's thesis committee comprises three members, including the advisor and two other members of the Graduate faculty; at least one member should be on the Entomology department faculty.

b. Ph.D. Dissertation Committee

- The Ph.D. Dissertation Committee typically forms the "Final Examination (Defense) Committee" responsible for approving the dissertation. Although this is not a requirement it is highly advised to simplify the process and ensure cohesion throughout the dissertation research.
- Outside members from other institutions can be approved by the Graduate College to participate in the Defense Committee if they have the expertise needed, but the approval request must be submitted with adequate time to ensure approval in time for the defense. Please see the Graduate College for details.
- In the weeks before a defense, the Graduate College must approve
 Final Examination Committees which must have a minimum of 4
 members, 3 must be members of the graduate faculty (whether a
 faculty or affiliate is a member of the graduate faculty can be checked
 on the grad college website), 2 must be tenured faculty at UIUC, and
 at least one tenured member of the Department of Entomology.

c. Annual Committee Meetings

- The Graduate College requires annual meetings with your thesis or dissertation committee. The Department strongly encourages you to assemble your Committee as soon as a general research interest is identified, but it must be completed by the end of a students' first year in the program. Numerous problems can arise when committee members are appointed at later stages of your graduate career.
- Many students try to schedule these meetings at the end of the spring semester to meet the annual requirement, but they can be held at any time. If scheduling in spring, be cognizant of the difficulties in scheduling during this busy time in the academic calendar.
- Committee meetings are typically 1-2 hours and often involve a student giving a short presentation to their committee and/or sharing a document to review beforehand to show their progress made and plans for moving forward with their degree. However, different advisors and committees have different expectations, so communicate with them beforehand to ensure the meeting is productive.
- At each committee meeting, the committee must review the student's progress and complete the "Annual Assessment of Graduate Program Learning Outcomes" form, which is found online on the

departmental website. Students should complete the Current Progress section in the form before the meeting. After each meeting, the committee will assign a Progress Level and add any Recommendations for Development for each Learning Outcome.

 Failure to hold an annual committee meeting and submit this form to the department office could result in you being placed on departmental probation and a hold being placed on your academic account, barring registration for future semesters until a meeting has been completed and a form submitted.

d. Changing your committee/advisor

While it should not be done often, a student may change their committee makeup at any time as long as the new committee fulfills the standard requirements. Members of the Dissertation/Defense committee can be changed up until it is approved by the Graduate College. This change should be discussed with your advisor and should be communicated clearly to your committee. Changing an advisor is a more substantial change that requires consultation and approval from the department head and Graduate Student Administration Committee.

D. The Graduate Student Administration Committee (GSAC)

Each graduate program at UIUC has a "Director of Graduate Study" (DGS). In Entomology, this role is taken by two faculty that form a standing Graduate Student Administration Committee (GSAC). GSAC assists the Head of the Department in attending to the needs of the graduate students, serves as the graduate student admissions committee, reviews petitions for exemptions, reviews petitions for entry to the Ph.D. program, nominates students for fellowships and other awards, reviews and tracks student progress, handles disciplinary actions, and accepts and rules on grievance petitions from graduate students. The committee chair also delivers an annual report to the faculty.

E. Entomology Graduate Students Association (EGSA)

The Entomology Graduate Student Association is the entomology department's official student voice. The EGSA is open to all graduate students in the Entomology graduate program, elects its own officers, organizes a wide range of outreach activities, maintains communication with the graduate student union (Graduate Employment Organization (GEO)), and plays an important role in the department in many ways.

1. Influence on Department Policy

- a. A formal request or proposal from the EGSA on any matter of departmental policy is given attention equal to that given to such matters from other bodies within the university. An item of this sort may be presented by an EGSA representative at a faculty meeting, in meetings between EGSA and the Head of the department, or in a letter to the Head.
- b. An elected representative of the EGSA, the Faculty Liaison, may poll students to gather concerns and topics and request a once-per-semester meeting to discuss those with the faculty and with EGSA leadership also in attendance.
- c. The EGSA or its representatives may also meet with the department Head whenever necessary to discuss policy and to inform the Head of student concerns.

2. Outreach

Outreach is one of the many important responsibilities of academic researchers. EGSA offers numerous opportunities for graduate students to participate in entomology outreach. The biggest outreach event of the year, traditionally in spring semester, is the Insect Fear Film Festival (IFFF), organized mostly by the EGSA. During the remainder of the year, two EGSA officers elected to the position of Outreach Coordinator are responsible for organizing various other community outreach events, including school/library visits and running booths at campus and community events. EGSA maintains an insectary specifically for this purpose. A number of outreach opportunities also exist at the department's Pollinatarium, located southeast of campus, particularly during fall semester.

EGSA Listserv

Entomology graduate students should be added to the EGSA listserv using the EGSA Subscription Request webpage.

F. Graduates in Ecology and Evolutionary Biology (GEEB)

Another organization in which entomology students are strongly encouraged to participate is the Graduates in Ecology and Evolutionary Biology (GEEB). This organization serves to "coordinate and unify the many graduate students conducting research in ecology and evolutionary biology at the University of Illinois Urbana-Champaign, including students interested in natural resources, wildlife management, modeling, conservation biology, and related fields." Like

EGSA, this group also elects its own officers and conducts a variety of student-led activities. These include organizing an annual research symposium for graduate students, facilitating weekly round-table discussions for graduate students and faculty (Ecolunch), coordinating workshops and career-building programs, and providing a social network for students with similar interests. Visit the GEEB website for more information.

III. Enrollment in Graduate Programs in Entomology

A. Requirements Prior to Graduate Studies

- 1) Any previous undergraduate major is eligible for an advanced degree in Entomology.
- 2) Credit earned as a non-degree graduate student will not be applicable to a degree program at Illinois, except upon subsequent admission to a degree program and successful petitioning to the Graduate College for the application of the credit to the degree. Normally, a maximum of 12 hours of graduate credit earned as a non-degree student may be applied to a degree.
- 3) Note that the Graduate College may require additional coursework to compensate for undergraduate deficiencies.

B. Financial Support

The Department of Entomology makes every effort to ensure that students in the Department's programs who are making satisfactory progress toward completing their degree requirements have adequate support. The terms and conditions of support offered through the department are detailed below. Your offer letter should provide details on the duration of funding provided.

1. Types of Support:

- Generally, financial support for students in good academic standing comes from research assistantships (RA), teaching assistantships (TA), and fellowships. Typically, these positions provide a monthly stipend, health benefits, and a tuition waiver or payment (i.e., graduate students do not normally pay tuition). All students are expected to maintain TA eligibility, which includes (but is not limited to) satisfactory completion of TA assignments.
- Most international students may be required to take an English
 proficiency test for TA eligibility. The requirements related to this test, the
 Oral English Assessment Interview (OEAI), must be passed prior to a TA
 assignment being made. Students requiring this test should take it as

- soon as possible. A student who does not pass should create a plan to develop sufficient English proficiency to do so. Details on the OEAI test can be found on the <u>OEAI website</u>.
- Stipends may also depend on the type of support received. The
 Graduate Employees' Organization has a negotiated pay rate for
 students employed as a TA; in SIB, TA stipends exceed this minimum
 and are determined by the School. RA stipends often match the rate set
 for teaching assistantships. Fellowships can be either higher or lower
 depending on the source of the fellowship.
- Students on both TA and RA appointments are typically paid for a maximum of 11 months (9 months in Fall/Spring semesters + 2 months in Summer). The total compensation package of 11 months can be considered equivalent to a year's salary, but note that students do not receive a paycheck for one summer month.

2. Terms of support:

The terms of support under which a student is admitted to the graduate program are given in the letter of admission sent to an applicant when admitted. A student admitted "with support" will receive support from the Department as necessary for the period of time and under the conditions detailed below, contingent upon satisfactory progress through the degree program. Because the University receives its funding in annual appropriations, the Department can make no absolute guarantee of financial support except on a semester-to-semester basis. If a student is admitted "without support," meaning that the student will be supported by his or her own funds or by a grant or award from a foreign government, the Department makes NO COMMITMENT to provide any support for that student.

The guidelines that follow apply to all graduate students in the Entomology program:

- a. Students who are admitted to the Master's program will ordinarily be supported for two years, after which time support will be dependent upon availability.
- b. Students who are admitted directly to the Ph.D. program with a Master's degree from another institution will ordinarily be supported for five years, after which time support will be dependent upon availability.
- c. Students who are admitted to the Ph.D. program after having been in the Master's program in this Department will ordinarily be supported for a maximum of four years beyond the two years of support already granted

- for the Master's work, for a total period of support of six years. If a student has taken more than two years to finish his or her Master's work and has been granted support for those extra years in anticipation of entry into the Ph.D. program, the extra years of support will count against the period of Ph.D. work that will be supported, so that the total period of guaranteed support will be six years only.
- d. The Department is committed to finding support for the periods specified above for all students admitted with support and who remain in good standing. The time limitations should allow sufficient time to complete a degree program. If a student is awarded external support in the form of a fellowship or research assistantship, this support will not extend the period of time for which the Department will ordinarily support the student.
- e. The Department recognizes that sometimes circumstances prevent a student from finishing a degree program within the time limits above. Therefore, a student may petition GSAC in writing for support beyond the limitations outlined here. The petition should include a rationale for the request for extra support. The Department will try to honor requests for extended support to the extent that funds allow, but it should also be clearly understood by all students that any student who wishes to continue study in this department beyond the time limits of support described in this document may have to do so without support.
- f. A student who was admitted without support (e.g., a full-time employee of the university) may petition GSAC in writing to be considered for support in subsequent years. Such a petition will be evaluated in the same way that a student's original application to the Department is evaluated, except that, in addition to the student's academic record and qualifications from the period prior to admission to the Department, the student's performance during the time he or she has been in the Department will also be evaluated. Any support granted will be subject to the same limitations placed on all supported students, counting from the time that the student is first admitted to a degree program, not from the time at which support is first granted.

3. Fee Waivers:

 A student who holds a teaching or research assistantship is exempt from tuition and most service fees; the appointment must be for not less than 25% time and not more than 67% time to obtain the waiver. Depending on the funding mechanism for fellowships or grant-supported positions, fees are typically paid by the grant or fellowship, but this support may not

- cover all fees. Students should check the terms of these types of support to ensure that required fees are paid.
- Fees are assessed at the beginning of the semester at a rate that covers
 the entire semester and some fees are waived provided the student is
 registered for at least 91 days in the Fall and Spring semesters and 41
 days in the Summer semester and fulfills the appointment requirements
 for at least 91 days in the Fall and Spring semesters and 41 days in the
 Summer semester.
- A student who holds an appointment that provides exemption from the tuition and fees (i.e., most TA and RA positions) and who resigns that appointment before rendering service for at least 91 days in the Fall and Spring semesters or 41 days in the Summer will be assessed the full amount of the appropriate tuition and fees unless they meet all requirements of the Graduate College and Registrar to a) withdraw or b) complete all degree requirements. Please see the Graduate College and Office of the Registrar for more information on those rules.

C. Transitioning from Master's to Ph.D.

A student in the master's degree program and near completion of the degree who wishes to enter the Ph.D. program should file a formal petition to GSAC the beginning of the semester before he or she wishes to begin doctoral studies.

This petition will consist of:

- a) a complete Curriculum Vitae (CV)
- b) a summary of their potential Ph.D. project (approx. 2 pages, single-spaced 11-12pt font)
- c) a timeline of completion
- d) a letter of recommendation from their potential advisor sent directly to GSAC co-chairs
- e) an interview with GSAC

After the interview, the student will receive a formal response from GSAC on the outcome of their petition within two weeks. If the petition is not filed allowing sufficient time for processing, the student will not be allowed to enroll in the Ph.D. program the following semester.

D. Evaluations

Whether a student remains in good standing within the department is determined in part on satisfactory completion of coursework, milestones, requirements, duties, research, and teaching. To assist with determining

student standing, evaluations of performance are conducted. Two primary types of evaluations are the Annual Student Evaluations and Teaching Assistant Evaluations.

Annual Student Evaluations

Each spring semester (January-February), the faculty of the department meet to evaluate the progress and competence of every graduate student. Progress in research, coursework, and teaching is considered. This evaluation is an important factor in assigning assistantships for the following year and assessing student progress.

Students and advisors are also required to complete an online annual progress report. These evaluations, along with additional information from the spring faculty review of students, teaching evaluations, and any additional information shared with GSAC or faculty, are used to evaluate student progress. Every student in the department is informed of his/her progress in writing by the Department Head. The Graduate College also requires that every doctoral candidate be informed in writing, no later than the end of the second year, as to whether he/she is making satisfactory progress. The results of the departmental evaluation of doctoral candidates are communicated to the Graduate College.

2. Teaching Assistant Evaluations

Many students in the department are funded by teaching assistantships. Teaching in graduate courses in the department and undergraduate courses in the School of Integrative Biology are evaluated by the Center for Innovation in Teaching and Learning (CITL) and the School. Responses to both faculty and teaching assistants are solicited from all students in the course by means of a questionnaire. All these evaluations become part of the record of the respective teachers and are used in evaluations for promotion and tenure of faculty as well as continued departmental support for graduate student teaching assistants. Teaching assistants are also evaluated by the course instructor or laboratory coordinator.

E. International Students

International students have special concerns and special responsibilities. The university's <u>Office of International Student and Scholar Services</u> is the definitive source of information for international students.

IV. The Curriculum

A. General

All MS students are required to complete a total of 32 graded 400-500 level credits. PhD students who entered the program with a previous master's degree must complete a total of 64 graded 400-500 level credits, or PhD students who entered the program without a master's degree must complete a total of 96 graded 400-500 level credits. To complete a graduate degree in Entomology you must complete "core" entomology courses and meet other program requirements. The following are the "core" Entomology courses for Entomology graduate students, each representing a topic area critical to the program. MS students are required to take at least 7 credit hours and PhD students are required to take at least 11 credit hours from these specific courses.

- Insect Physiology (IB 433) (4 hours)
- Insect Ecology (IB 444) (4 hours)
- Classification and Evolution of Insects (IB 468) (4 hours)
- Insect Pest Management (IB 482) (3 hours)
- Genomic Analysis of Insects (IB 504) (3 hours)

The spirit of this requirement is for MS students to take at least two and PhD students to take at least three of these five courses. They then can fulfill the other coursework requirements from the list below. However, these must overlap in conceptual/topic area with the 'core' course they replace. Note that there are no replacements for IB 468 (Classification and Evolution of Insects).

In addition to the core courses listed above, the following is the list of "advanced" courses from which a student may choose in order to meet the minimum number of hours required to graduate. Courses must be chosen to fulfill the same general topic areas as the core courses they replace (e.g., to fulfill the "Insect Ecology" core course, only a subset of these courses can be used); these associations are noted below.

- Population Genetics (IB 416) (3 or 4 hours) Fulfills IB 504
- Env and Evol Physl of Animals (IB 426) (3 hours) Fulfills IB 433
- Genes and Behavior (IB 432) (3 hours) Fulfills IB 504
- Biogeography (IB 439) (3 hours) Fulfills IB 444
- Ecosystem Ecology (IB 452) (3 hours) Fulfills IB 444
- Community Ecology (IB 453) (3 hours) Fulfills IB 444
- Vector-borne Diseases (IB 481) (4 hours) Fulfills IB 482
- Programming for Genomics (IB 501) (4 hours) Fulfills IB 504
- Basic Toxicology (FSHN 480) (3 hours) Fulfills IB 433
- Principles of Agroecology (CPSC 437) (3 hours) Fulfills IB 444

- Evolution of Infectious Disease (MCB 435) (3 hours) Fulfills IB 504
- Bioinformatics (CHBE 571) (4 hours) Fulfills IB 504
- Ecotoxicology and Human Health (IB 455) (3 hours) Fulfills IB 482

An advanced course can only replace a core course in the same general topic area. There are no equivalent courses for Classification and Evolution of Insects (IB 468).

Other relevant courses may be added to this list or accepted on an ad hoc basis.

Introduction to Entomology (IB 401), the Colloquium (IB 526 B), and other Advanced Special Topics Seminars in Entomology (IB 526) are also offered for further training in entomology. These classes as well as others offered across campus will help complete your formal training in entomology and support your interests and career.

For students who have completed previous coursework that is closely aligned with the core courses (e.g., having taken these or similar courses as undergraduate or during a MS at another institution), it may be possible to request that the area topic has been fulfilled. This can be done by petitioning GSAC with a request providing information about the course the student is proposing fulfill a given requirement. This request should include the course description, syllabus, and transcript demonstrating the grade earned.

B. Requirements Overview

Table 1: Master's and Ph.D. requirements for the University of Illinois Department of Entomology.

For additional information on these topics, see sections C-H below.

Requirements	Master's Degree	Ph.D. Degree
Time restrictions	Complete all requirements within FIVE calendar years after initial registration in the Graduate College. However, students should aim to complete this degree in two years.	Entering WITHOUT M.S.: Complete all requirements within SEVEN calendar years, which includes time applied toward MS degree. Entering WITH M.S. from elsewhere: Complete all requirements within SIX calendar years after initial registration in the doctoral program. If leaving, changing programs, or reentering the program, the Graduate College will review all cases and reentry and time limits determined based upon situation.

Requirements	Master's Degree	Ph.D. Degree
Core Courses	Grade of A or B in the courses as outlined in Section IV. A.	Grade of A or B in the courses as outlined in Section IV. A. If analogous courses were taken at other institutions, GSAC will evaluate if these fulfill requirements in our program.
Statistics/Method- ologies requirement	Take at least one of the preapproved 400-500 level statistics and/or analytical methodologies courses (see list of Statistical or Analytical Skills courses as outlined in Course Catalog). GSAC must approve courses: 1) taken prior to enrollment at UIUC or 2) that do not clearly meet the requirement.	Take at least one of the preapproved 400-500 level statistics and/or analytical methodologies courses (see list of Statistical or Analytical Skills courses as outlined in Course Catalog). GSAC must approve courses: 1) taken prior to enrollment at UIUC or 2) that do not clearly meet the requirement.
Seminar requirements	Enroll in and attend Introduction to Graduate Studies, IB 546 Section B (CRN 31834), the first fall semester of enrollment. Enroll in and attend the weekly department colloquium (IB 526 B) every semester.	Same as M.S. requirement, plus at least three additional Advanced Special Topics Seminars in Entomology (IB 526) with a grade of "satisfactory". The three seminars need to fulfill three different subject areas including: IPM, ecology, genomics, physiology, classification, systematics, toxicology, and behavior. Other seminars can also fulfill this requirement if approved.

Requirements	Master's Degree	Ph.D. Degree
Credit Hours	32 credit hours of graduate coursework including the core courses, a statistics/methods course, thesis research (ENT 599), and electives. At least 12 hours must be in the major field (Entomology). No more than 12 hours of thesis credit (ENT 599) may be counted toward the minimum 32 hours required. At least 16 hours must be from courses meeting at the Urbana-Champaign campus, or other courses approved for resident credit by the Graduate College.	96 hours of graduate coursework (400-500 level) including the core courses and a statistics/methods course. A student entering with a master's degree can receive credit for up to 32 hours. At least 64 of the hours, including thesis credit, must be courses meeting on the Urbana- Champaign campus or at other locations approved by the Graduate College for residence credit. This may include units prior to formal admission to Ph.D. candidacy.
GPA	Maintain a 3.0 average or above.	Maintain a 3.0 average or above.
Thesis/ Dissertation	Submit a thesis prepared on original research performed with the supervision of a faculty member or affiliate faculty of the graduate program in entomology.	Submit a dissertation prepared on original research performed under the supervision of a faculty member or affiliate member of the Department of Entomology. Doctoral dissertation work must be separate from the MS thesis work.
Exit Seminar	N/A	Present a seminar to the department on the complete research project.
Examination	Pass final examination on the thesis material.	Pass the Preliminary Examination within a year of completing the core courses. Pass the Final Examination (thesis defense) on the dissertation material within five years of passing the Preliminary Examination.
Teaching	N/A	Two semesters of Teaching Experience are required (student may petition GSAC for an exemption if necessary).

Requirements	Master's Degree	Ph.D. Degree
Article Submission	N/A	At least one chapter should be submitted to a scientific journal prior to the defense. Under some circumstances, a petition can be submitted to GSAC to waive this requirement.

C. Core Courses, Special Topics Seminars, and Statistics

1. Core Curriculum

The core courses or alternatives listed above under "General" are usually taken in the first two academic years after enrollment. The optimal sequence for taking this coursework should be determined in consultation with your advisor.

2. Advanced Special Topics Seminar Courses

- a) IB 526 advanced special topics seminars will be offered by the department in one of the following areas: genomics, IPM, ecology, physiology, classification, systematics, toxicology, or behavior. Faculty responsibility for each semester of IB 526 will be arranged by the Head of the department. As mentioned in Table 1, only one IB 526 seminar in each subject area may count toward the doctoral degree requirement of three advanced special topics seminars.
- b) Additional IB 526 seminars may be arranged by students, in consultation with faculty, provided the proposed seminars meet the following criteria:
 - Students are responsible for preparing original seminar material and presenting it orally.
 - 2) Departmental faculty are involved in the seminar to ensure high standards and adequate student evaluation.
 - 3) The seminar subject fits in one of the core areas of entomology, toxicology, or behavior, and the faculty involved in this area approve its status as an IB 526 seminar.
 - 4) The seminar is at an advanced level, beyond that of the appropriate core course.
- c) Seminar courses offered by units other than the Department of Entomology (e.g., the Department of Plant Biology, the Department of Evolution, Ecology and Behavior (EEB), or the Program in Ecology,

Evolution and Conservation Biology (PEEC)) may be substituted for an IB 526 seminar for credit toward the doctoral degree with the approval of GSAC. Irrespective of the unit offering the course, the requirement applies that only one IB 526 seminar may be taken for credit toward the doctoral degree in each subject area.

d) Other courses may be proposed by students or faculty, which, if not fulfilling these requirements, can be listed under IB 490. Short lecture courses in specialized areas, practical courses and mini-courses of various sorts may be included, where the subject matter will not be covered in a routinely scheduled course.

3. Statistics and/or Analytical Methodologies Courses

All Entomology students must take at least one of the following Statistical or Analytical Skills courses:

- Theoretical Biology + Models (IB 494) (4 hours)
- Programming for Genomics (IB 501) (4 hours)
- Analysis of Biological Data in R (IB 517) (4 hours)
- Bioinformatics (CHBE 571) (4 hours)
- Applied Statistical Methods I (CPSC 440) (4 hours)
- Quantitative Methods in NRES (NRES 421) (3 hours)
- GIS in Natural Resource Mgmt (NRES 454) (4 hours)
- Advanced Quantitative Techniques for Ecology & Conservation (NRES 595) (4 hours)

A student should consult with GSAC to ensure that a new course or another course not on the list is acceptable. Students are encouraged to take more statistics courses as such training is highly beneficial for careers in entomology and other sciences.

D. Credit Loads

Normal Credit Loads

The Graduate College limits the maximum amount of credit for which a University appointee may enroll. A teaching assistant or research assistant normally has a 50% appointment. Graduate students meet the institutional definition of full-time enrollment when enrolled for eight credit hours in the fall or spring semesters and four credit hours during the summer semester. No more than 20 hours in Fall and Spring terms and 12 hours in the Summer are permitted.

Undergraduate courses taken by a graduate student (100-, 200-, and 300-

level) are **not counted** as part of the maximum load of an employed student. They can be counted as part of the minimum load of a Fellow or the holder of a tuition waiver.

2. Students Who Hold Tuition Waivers Only

Students may only enroll in units up to the permitted level by the position generating the tuition waiver. For example, university employees (other than graduate research assistants or graduate teaching assistants) are eligible to enroll for up to 11 hours and stay within the allotted hours/semester. If the position is terminated, the student may be held responsible for paying tuition in full, depending on the terms of the tuition waiver.

3. Final Semester Course Registration

Upon degree completion, the Graduate College does not require students to be registered at the time of deposit. However, all doctoral candidates must be registered for the entire semester or term during which they take the final examination.

4. In absentia Course Registration

If a student needs to remain registered but plans to be away studying or conducting research, registration *in absentia* is required. Important details concerning registration *in absentia*, tuition and fees, exceptions to time limits for progress toward degree, and requirements for enrollment can be found in the <u>Graduate College Handbook</u> for students, faculty, and staff. **Students are required to take responsibility for their rate of progress through the graduate program.**

E. Department Colloquium

The Department of Entomology sponsors its own colloquium series and it is a requirement for all our graduate students to sign up for 1 hour credit as IB 526B every semester and attend all departmental colloquia. Special effort is made to provide opportunities for graduate students to interact with off-campus guest speakers through lunches, one-on-one meetings, and/or receptions. At some point during their tenure, graduate students should arrange with the faculty chair of the Seminar Committee to sign up to host an off-campus speaker; hosting duties include ensuring that the speaker is escorted to all appointments, attending and arranging for three or four other students to have lunch with the speaker, and introducing the speaker at the seminar. Students are strongly urged to avail themselves of these opportunities to broaden their circle of entomological acquaintances. Material covered during departmental

colloquia may be included in the oral portion of the preliminary exam.

F. Examinations

Examinations are of two primary types:

- 1) those administered by the Department, and
- 2) those administered by the Graduate College.

Preliminary examinations (oral) will typically not be scheduled other than during regularly scheduled class times in the Spring and Fall semesters.

Departmental Examinations

a. Remedial Examinations for Core Course

A grade of C or below in a core course by a candidate for an advanced degree in entomology will require the recipient to follow one of the two procedures stated below, selected by mutual agreement between student and course faculty. This remedial action must be completed prior to taking the preliminary oral examination for the doctorate or the final oral exam for the master's degree.

- i) Repeat the course (without credit) and obtain a grade of A or B.
- ii) Earn a grade of A or B on a proficiency examination or paper evaluated by the staff of the core course in question. Authority for this decision rests with the instructor of the core course. Although the academic penalty engendered by such a grade may be rectified in this manner, the original numerical value of the grade will not be erased from the student's record and will continue to enter into calculations of grade point average (for example, when GPA is calculated for Graduate College fellowships).

A grade of C in two core courses may be similarly rectified only after approval of the faculty of the entire department, following a review of the candidate's overall performance.

A grade of C in three core courses will automatically preclude a candidate from receiving any advanced degree in this department.

b. Final Examination: Master's Degree

The defense of the master's thesis is a departmental examination administered by the student's thesis advisory committee appointed by the Department Head, on advice from the advisor and student. The committee is composed of at least three faculty members, one of whom is the advisor and two other members of the Graduate faculty; at least one member should be on the Entomology department faculty.

The student must submit a request for a Master's Thesis Approval Form through the Graduate College Student Portal 3 weeks before the date agreed upon by the student and the committee for their master's defense. The appropriate paperwork will be sent to the student and the department Office Administrator upon approval of the committee by the Graduate College.

This oral exam normally lasts two hours. It is intended to verify the student's understanding and development of the research problems undertaken and his/her general competence as a researcher. A copy of the thesis must be submitted to each member of the examining committee at least **two weeks** in advance of the examination. Failure to meet this deadline can result in the cancellation (or postponement) of the exam. The departmental Office Administrator must also be notified at this time and will assist in scheduling the exam and collecting appropriate paperwork.

If a student fails this examination, it may be repeated after a certain period of time, usually no sooner than three months, with the committee composed of the same members unless extraordinary circumstances prevent a member from continuing to serve. A student will normally be terminated as a degree candidate after a second failure. Grievance procedures outlined by the department are available to students who feel they have received unfair treatment.

2. Graduate College Examinations

Preliminary Examination ("prelim") and Final Examination committees for Ph.D. candidates are faculty committees appointed by the Dean of the Graduate College from members of the Graduate faculty. The committees are appointed on the recommendation of the department executive officer. These committees are responsible to the Dean of the Graduate College, and their decisions are not subject to alteration at the departmental level. Grievance procedures administered by the Graduate College are available to students who feel they have received unfair treatment.

A Candidate passes the exam if the Director(s) of Research vote Pass and no more than one of the remaining members vote Fail.

a. <u>Preliminary Examination and Research Proposal</u>

The purpose of the prelim is to ensure that the student is well versed in basic biology, is thoroughly acquainted with the core areas of entomology and is able to integrate these subjects into a professional understanding of the discipline. This requires a demonstration of

proficiency in writing, oral discussion, critical thinking, and a strong background in entomology. The preliminary examination is a Graduate College-required examination for all doctoral students.

The student should inform their advisor and the departmental Office Administrator of his/her intention to take the Preliminary Examination the semester prior to the exam. The student must submit a Preliminary Exam Committee approval request through the Graduate College Student Portal 3 weeks before the date agreed upon by the student and the committee for their Prelim Exam. The appropriate paperwork will be sent to the student and the department Office Administrator upon approval of the committee by the Graduate College.

<u>Exam format</u>: The preliminary exam has two components – a written exam and an oral exam. The goal of each is to assess a students' preparedness to perform independent research at a level that will result in a successful doctoral dissertation.

- Written exam: Approximately one week before the scheduled preliminary exam, the students' committee members will provide written prompts to be answered by the student. The timing and content of these are flexible and at the discretion of individual committee members. They can have any time limit, but each committee member's assignment should be possible to complete in no more than a single day. They can be open book/world, or closed note written, or typed; again, at the discretion of the committee. The responses to these questions are then shared with the entire committee for evaluation.
- ii) Oral exam: Following the written exam, at the scheduled preliminary exam time, the student will complete an oral exam. During a 3 hour window, each committee member will ask questions to the student related to both their answers to the written questions and other topics related to the field. These should cover the field of entomology, with focus on at least 3 of our core topic areas.

Exam committee: The examination committee will be made up of the students' doctoral research committee, but can/should be supplemented with a department member if specific entomological expertise is needed for the preliminary exam to effectively cover 3 of our core topic areas. The Chair should <u>not</u> be the advisor. The Graduate College requires at least four voting members, including three current members of the Graduate Faculty, two of which must be tenured members of the Graduate Faculty.

Exam content: The goal of the preliminary exam is to ensure students are prepared for a career in entomology and have knowledge and skillsets that allow them to complete a dissertation. As a student prepares for their preliminary exam, they should meet with each of their committee members to discuss the content. At the very least, students/committee should identify 3 of the 5 core topic areas in our curriculum for particular focus, presumably reflecting the expertise and research of the student. While all relevant topics are fair game in a prelim exam, questions will mainly be related to these core areas (i.e., Ecology, Systematics, Molecular Biology/Genomics, Physiology, or Pest Management/Applied Entomology).

<u>Timing of exam</u>: Students should complete their preliminary exam between the end of their 2nd year and before the end of their 3rd year in the program/department. This includes time working on their MS thesis. For example, a student who completes their MS thesis at the end of their 2nd year in the program should complete their preliminary exams before the end of their third year (i.e., during their "1^{st"} year working on their doctoral projects).

Other information: If a student fails the Preliminary Examination, another exam, administered by the same committee, should be given within the next six months. A second failure will preclude the student from gaining a Ph.D. in the Department of Entomology. Grievance procedures outlined by the Graduate College are available to students who feel they have received unfair treatment.

If more than five years elapse between a doctoral student's preliminary and final examinations, the student is required to demonstrate that his or her broad knowledge of the field is current by passing a second preliminary examination.

Research Proposal: While the preliminary exam does not include a written proposal, producing a document outlining doctoral research plans is critical. Therefore, within 1 year of completing the prelim exam, students should have a committee meeting specifically for the review of their proposal. This is not a 'pass / fail' review, but is valuable to help the student develop a solid research plan and gather the committee's approval of an appropriate plan. The format of this proposal is at the discretion of the committee.

Responsibilities of the Preliminary Examination Committee:

At the start of each academic year, the Department Head will assign a

five-person committee for each student who will complete the core course requirements during the coming academic year. This committee will be responsible for conducting the Preliminary Examination (written and oral) of that student.

b. Final Examination: Ph.D. Degree

The Final Examination for the Ph.D., a Graduate College requirement, is administered by the Final Examination Committee. The Final Examination Committee is also called the Thesis Advisory Committee or the Doctoral Committee. The Graduate College requires at least four voting members, including three current members of the Graduate Faculty, two of which must be tenured members of the Graduate Faculty.

The department requires that at least one tenured faculty member of the Department of Entomology be on the committee.

The process of committee selection for the final examination is initiated by the student and his/her advisor and should include those faculty members who can best help the student in research and who have agreed to read the dissertation. The student must submit a Final Exam Committee approval request through the Graduate College Student Portal 3 weeks before the date agreed upon by the student and the committee for their Final Exam. The appropriate paperwork will be sent to the student and the department Office Administrator upon approval of the committee by the Graduate College.

This oral exam will normally last 2 to 3 hours and is a defense of the dissertation. It is also intended to examine the candidate's research ability and general competence as an entomologist and research biologist. A copy of the dissertation must be submitted to each member of the examining committee at least **two weeks** before the examination. Failure to meet this deadline may result in the cancellation (or postponement) of the exam. The departmental Office Administrator must also be notified three weeks prior to the exam so he/she can process the required forms and collect the appropriate paperwork.

If a student fails this examination, it can be repeated with the same committee between 3 months and one year after completing additional research or writing, as recommended by the committee. A student will be terminated as a degree candidate after a second failure.

Students who are defending their dissertation are expected to present a departmental seminar based on the thesis within six months of the defense.

G. Dissertation and Thesis Preparation

There is a strict set of rules to follow when preparing an M.S. thesis or Ph.D. dissertation in the department. They must pass both Departmental and Graduate College Format checks.

- Instructions issued by the Graduate College must be followed. Be sure you
 obtain the most recent edition of their checklist. Consult the <u>Graduate</u>
 <u>College website</u>.
- 2) All other decisions regarding preparation of a dissertation should be made by the student, the thesis advisor and the thesis committee. As stated in the directive from Dean Daniel Alpert of the Graduate College (Jan. 17, 1972), "The student and his advisor will be responsible for the organization of the chapters, division in subtopics, pagination, accuracy of references." Thus, when a dissertation is submitted for the departmental format check it will be assumed that the student and the advisor assert that the required style and format have been followed. Confrontations between students and Graduate College staff must be avoided. The person in charge of the departmental format check and/or the Department Head will intervene when necessary.
- 3) Important dates and deadlines for graduate students may be obtained from the departmental office. The student must adhere to all Graduate College deadlines for defense and deposit of the thesis.
 - The dissertation must be submitted to Final Examination Committee members at least two weeks before the examination date. Once the thesis is approved by the Committee, the student must allow at least five working days for the Departmental Format Check. The format check must be done before the thesis may be deposited, in case changes are necessary to adhere to departmental and Graduate College regulations.
- 4) <u>Publication</u>: All doctoral students are expected to have at least one chapter of their dissertation submitted to a reputable scientific journal prior to the defense. This requirement can be waived by GSAC via petition from the student. If a part of the dissertation has been published before the submission, appropriate acknowledgment of the earlier publication should be included.
- 5) Expenses for duplicating a thesis are borne by the student.

V. Expectations for Student Behavior and Procedure for Addressing Concerns

A. General

The entire campus community is expected to treat each other with civility and respect as outlined in the Campus Integrity Statement:

"The University of Illinois at Urbana-Champaign expects its faculty, staff, students and guests to conduct themselves in accordance with the community values of civility, respect and honesty; to maintain the highest level of integrity and exercise critical judgment in all dealings, decisions and encounters; and to maintain and strengthen the public's trust and confidence in our institution." (taken from the 2018-2019 Student Code)

If you are found to be behaving outside of these expectations, you will be notified by GSAC formally with consequences for subsequent violations.

We hope that you have few issues during your time here but in case there are problems please follow the procedures in "Graduate Student Grievance Procedures" to handle grievances. These procedures will also be used if a problem is brought against you and you will be informed of the grievance and the decision.

B. Comments on Academic Integrity

Academic integrity is the bedrock upon with the entire scientific enterprise rests. It can be a complex issue, so we take this opportunity to provide you with some guidance. Although these statements are presented in the context of coursework, you should continue to apply them throughout your professional career.

The most common form of academic dishonesty encountered among students is plagiarism. Put simply, plagiarism is taking someone else's writing (either words or ideas) and taking credit for it. **Never use text written by anyone else without clear attribution**. If you do have a need to use text that is unchanged from its original source, that text must be set off from the rest of your writing with quotation marks and the source of the text clearly cited. **Citing other people's words without attribution is the academic equivalent of stealing and is an offense that is punishable by actions ranging from reprimand to expulsion from the University.**

See Article 1 of the UIUC Student Code for guidelines on plagiarism and other violations of academic integrity, including fabrication, cheating and academic interference. (Student Code: § 1-402 Academic Integrity Infractions)

- a) Laboratory Reports. All laboratory reports that you hand in for class must be written by you entirely in your own words. Laboratory work is frequently carried out in groups and sometimes class data are pooled. Discussion of the results among students is expected, but, when your report is prepared, you must write it in your own words. It is proper form to give credit in writing to anyone (even your lab partner) who has provided you with major insights.
- b) Term Papers, Seminar Presentations. These exercises involve organizing, interpreting, and criticizing the published work of others. All references used must be cited, but bibliographies must not be padded with material you did not personally consult. It is essential that you avoid any form of plagiarism. Seek guidance from your advisor, the Head, or GSAC as needed if any questions arise as to what constitutes plagiarism. Even though term papers are not ordinarily written for publication, all standards of scientific integrity nonetheless apply; direct quotations from the literature must be indicted as such, and all source materials used on the preparation of the paper disclosed.

C. Sexual Misconduct Policy

A student at the University of Illinois at the Urbana-Champaign has "the same rights and responsibilities as any citizen of larger communities of the state, the nation, and the world."

"The University of Illinois at Urbana-Champaign ("University") is committed to providing a safe and welcoming campus environment free from discrimination based on sex, which includes sexual assault, sexual exploitation, stalking, sexual harassment, dating violence, and domestic violence (collectively referred to as sexual misconduct). The University prohibits and will not tolerate sexual misconduct because such behavior violates the University's institutional values, adversely impacts the University's community interest, and interferes with the University's mission. The University also prohibits retaliation against any person who, in good faith, reports or discloses a violation of this policy, files a complaint, and/or otherwise participates in an investigation, proceeding, complaint, or hearing under this policy. Once the University becomes aware of an incident of sexual misconduct, the University will promptly and effectively respond in a manner designed to eliminate the misconduct, prevent its recurrence, and address its effects."

(Student Code: § 1-111 Sexual Misconduct Policy)

D. Graduate Student Grievance Procedures

If a student has a grievance regarding professional affairs, he/she should try to resolve the conflict by conferring with the person involved, his/her advisor, or the supervisor responsible for conduct if in a classroom or work setting. A grievance brought to an advisor or supervisor but not resolved is then taken to the Graduate Student Administration Committee (GSAC) for resolution. As well, if the student feels that this avenue would be either unproductive or lead to a prejudicial judgment, the grievance may be brought initially to the attention of GSAC.

The committee will attempt to resolve the problem by whatever means it deems suitable. Its decision will be submitted to the Department Head. If the GSAC finds the grievance to be justified, it will make a recommendation to the Department Head on how the situation that has resulted in the grievance might be resolved. The Head will then take the necessary action to correct the problem.

If the committee finds the grievance unjustified, it will so inform the student and the Department Head. In this case, or if the Head's action does not satisfy the student, a final appeal can be made to the Grievance Committee of the Graduate College.

If a faculty member (or members) of the GSAC is directly involved with a grievance, he/she will be replaced by the first alternate member of the GSAC committee, chosen by the Department Head when the committee is appointed. If the president of the EGSA is personally involved, the EGSA secretary will take his/her place.

If the Department Head is directly involved with a grievance, and the grievance is deemed justifiable by the GSAC committee, the chair will take whatever action he/she can to alleviate the circumstances leading to the grievance.

All parties will be notified in writing of the outcome of any grievances including any subsequent actions that may take place.