PURDUE ENTOMOLOGY GRADUATE STUDENT HANDBOOK

(Revised in May 2023)

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(I) WELCOME TO PURDUE ENTOMOLOGY

Congratulations on your acceptance into the Purdue Entomology Graduate Program! On behalf of the students, administrators, faculty and staff, we welcome you to this important and exciting phase of your academic journey. We are pleased that you decided to pursue graduate studies at Purdue University, and we will do our part to ensure your time in residence is resourceful and productive.

Please take this opportunity to read the Department Handbook. In it, we explain the department policies, procedures and guidelines for the Graduate Program. This handbook provides information that is specific to our department; broader university-level rules and regulations for graduate student programs that are shared across all departments can be found here. If you don't find the answer to your questions in either of these documents, don't hesitate to contact us. We have a vested interest in your success and are happy to help.

Welcome to Entomology!

i. What to do on your first day?

Arriving on Campus - Campus Map

Some students walk or ride their bike, depending on how close they live to campus. Many take the <u>CityBus</u>, which is free for all students with a university ID, drops off right in front of Smith Hall, and will take you anywhere in the Greater Lafayette area (see above web link for routes and campus loops). For those who want to drive a personal vehicle to campus, you will need to pay for a parking permit. Students are allowed a "C" permit for \$100 per academic year. To purchase one, you will need to visit the <u>Parking Facilities</u> website to register online.

Initial Meeting with ENTM Graduate Administrator

Before arriving, please schedule a meeting with **Amanda Wilson** (apendle@purdue.edu) at least 1 week in advance. Amanda's office is in Smith Hall 127C.

International students will need to also report to the <u>International Students and Scholars (ISS)</u> office, located in Schleman Hall, room 136, prior to meeting with Amanda. We highly recommend contacting ISS in advance to schedule a meeting and ensure you have the necessary documents.

Complete the Following Check List

Within the department, you will need to complete the following tasks and meet with the following individuals listed below to gain access to the building and its resources. You can do this individually or in coordination with your major advisor.

☐ Bring the following required items with you to campus on your first day
Driver's license or photo ID, documentation of local address, and Social Security Card or Visa.

☐ Get a Purdue University ID

You will need a Purdue ID to access some of the university resources. To do so, please visit the website for the <u>Purdue ID Card Office</u> and make an appointment.

☐ Get keys to office & lab space

Tammy Luck (Smith Hall) or Rebecca Stevensen (Whistler) can help you get keys to your office and lab space. See section II.i. (*Department Staff*) on Page 4 below to access contact information for these and other individuals referenced in this section.

☐ Mailbox & copy code assignment

You will need to see either Mardelle Lorton or Molly Weber in the main office when you arrive to complete the check-in process. They can help you get copy codes, get set-up with a mailbox, and will likely want a headshot photo for the directory on the wall.

☐ Get added to department email listserves, shared drives & printers

Contact Bransen Shidler (shidler@purdue.edu) to make sure your Purdue email address has been added to the proper department listserves and you have access to department shared drives (check with your advisor first to identify which shared folders you need access to). Eric can also help connect your office computer to department printers (i.e., remote printing).

☐ Setting up direct deposit

You will receive an email containing the New Hire Wizard, through which you will be able to set up direct deposit. More information can be found on the New Hire Welcome page.

☐ Lab safety & responsible conduct of research training

Purdue requires individuals who design and conduct research and/or report and publish research outcomes to be trained in the Responsible Conduct of Research - including faculty, postdocs, staff and students. You will receive email instructions on how to complete this training – see Purdue's website for specific online resources and FAQs. You are also required to complete any safety training that is specific to your laboratory and research, consult with your major advisor on what those requirements are.

(II) GRADUATE STUDENT SUPPORT

i. Department Staff

Below is a list of the key department staff that can help you with anything from payroll, purchasing, registering for classes to IT support. They make this department run and we appreciate their hard work and dedication to supporting our students – don't hesitate to reach out if you have questions about department resources and policies.

Building Deputy

Tammy Luck (<u>luck@purdue.edu</u>; office: Smith 209; phone: 765-494-8761) is the building deputy of Smith Hall, EE, and EFOB. She will assign you keys (building, office, lab, mailroom) and a desk in one of the grad student offices. Tammy is also in charge of placing work orders for general building repairs and is the Extension administrative assistant so helps with website development, publications, newsletters, and posters.

Rebecca (Becky) Stevenson (<u>rebeccas@purdue.edu</u>; office: WSLR 128; phone: 765-496-7608) is the building manager for Whistler (WSLR). She can assist with getting keys for offices and labs in WSLR and placing work orders for building repairs.

IT Support

Preston Wiley (pswiley@purdue.edu; office: Smith B10; phone: 765-494-2085) is the departmental IT specialist and can help you gain access to your Purdue email, which will likely entail contacting centralized university (ITaP) and/or college (AgIT) IT resources. Preston can also help you get set-up with a work computer, if you need one, connecting your computer to local printers, or printing out posters.

Bransen Shidler (shidler@purdue.edu; office: Smith 209; phone: 765-496-1728) is the departmental web designer. He can help you with changes to lab/personal webpages, edits to the departmental webpage, and contributes to the social media accounts for the department on Facebook and Twitter (@PurdueInsects).

ENTM Main & Business Offices (Smith Hall 100 & 101)

Lori Edwards (<u>ledwards@purdue.edu</u>; office: Smith 101B; phone: 765-494-4549) is the business assistant and can help with account numbers for grants.

Sarah Hart (<u>hartse@purdue.edu</u>; office: Smith 101B; phone: 765-494-9377) can help you with questions about travel cards and ordering supplies.

Mardelle Lorton (<u>lortonm@purdue.edu</u>; office: Smith 100D; phone: 765-496-1119) is the administrative manager for the department, located in the main office. She can help with scheduling conference rooms for meetings, copy codes for the mailroom copier and scanner, organization of department activities and any general questions you might have.

Molly Weber (weber77@purdue.edu; office: Smith 100D; phone: 765-496-1119) provides additional support for department shipping & receiving, copy codes, organization of ENTM seminars, scheduling conference rooms for meetings, and help with GradTracker.

Graduate Student Administration

Amanda Wilson (apendle@purdue.edu; office: Smith 127C; phone: 765-494-9061) is the department's Graduate Advisor & Administrator and helps with course registration, plans of study, administrative requirements for graduation and GradTracker.

Outreach

Emily Justus (ejustus@purdue.edu; office: Smith 124; phone: 765-494-0997) is the outreach coordinator for the department and organizes many K-12 and public education events throughout the year featuring insects, including Purdue's Bug Bowl. She also maintains the "Bug Barn" in Smith Hall, which houses numerous exotic insects and spiders used for outreach. Feel free to contact Emily if you want to get involved in any of these activities; she is always looking for student volunteers to help.

ii. Department Resources

Below is a list of general department resources and policies to help you.

Shipping & Receiving - Mailroom SMTH 119

All grad students have a mailbox along the left wall of SMTH 119, alphabetized by last name. In the back of the room are two bins for outgoing mail; one for campus mail and one for US mail. If mailing via USPS for the department, do everything but the stamp and the appropriate postage will be placed on it by Purdue's mail department.

FedEx and UPS will deliver at varying times throughout the day, though most packages arrive sometime in the morning. All package tracking numbers should be recorded on the sign-in sheet toward the back-left corner of the room. Molly Weber will send you an email when you have received a package. Most recorded packages will be placed on the cart on the right wall. Please make sure to sign for all packages you receive.

Molly is the go-to person in the department for shipping FedEx or UPS. Shipping forms are available in the main office or electronically (email Molly). If shipping for university purposes, you will need a valid account number. Please fill out the form completely for each package and give to Molly before noon if you need to ship something that day – since pick up is at 3pm, that leaves a few hours to make sure everything is ready and properly labeled for shipment.

Purchasing

For all purchasing, you will need a valid account number. Please discuss this with your advisor.

We have three credit cards that can be checked out and have a \$250 one-time limit for purchases made locally (e.g., Walmart, Menards, etc.). These can be picked up in the business office (Smith 101). However, check-out cards are for emergency purchases only; all general ordering should go through Ag Purchasing as described below.

To purchase items online, you must go through the central College of Agriculture business office who will place the order for you. To do so, fill out the purchasing form (found here) and submit to agpurchasing@purdue.edu using this subject line:

Dept Name/Customer Last Name/Vendor Name (e.g., ENTM/Smith/BioQuip).

Poster Printing

The department owns a large printer, which can be used for single poster needs (i.e., to use for professional conferences & events). Please contact Bransen Shidler and Tammy Luck for assistance.

Scheduling Conference Rooms

Molly and Mardelle manage the schedule for the ENTM department conference rooms located in Smith 131 and B10A. They can also make requests for reservations in rooms in buildings outside of Smith, like Whistler and Lilly. Email either of them if there is a room you'd like to schedule for a committee meeting, lab meeting, or other event.

Travel

When traveling for university-approved business, such as attending the ESA conference, you will need a Purdue <u>travel card</u>. This should be used for <u>all</u> travel expenses associated with the trip (flight, hotel, meeting registration, taxi, food). Keep all receipts over \$75. See Sarah Hart in the business office (Smith 101) to apply for a personal travel card and to process your receipts upon return from the trip. As with purchasing, you will need a valid account number from your advisor.

IT Resources

Below is a list of university or college IT resources to help get you started in the department and provide you support as a student – this is not an exhaustive list. For department-specific questions, you should contact Bransen Shidler and Preston Wiley. However, general questions should be directed to ITAP, which is the central IT group for the university with which AgIT is affiliated.

VPN Access

Using the university VPN can be extremely useful for accessing files and other digital resources from home or when traveling that are saved on university servers. To set this up on your personal computer, you will need to download and run the Cisco AnyConnect software using the following instructions.

Departmental List-Serves

The department manages several email lists that are maintained by Bransen Shidler; please contact him to ensure that your Purdue email is included on 'entm.grads' and 'entm.everyone'. This is essential as much of the news surrounding departmental events, activities, or general notices are sent via list-serves. All emails are monitored and will be subject to distribution approval by authorized individuals in our department. No spam, solicitations or inappropriate emails will be permitted.

Grad Students: entm.grads@lists.purdue.edu

Undergrad Students: entm.undergrads@lists.purdue.edu

Post Docs: entm.postdocs@lists.purdue.edu

Everyone in the dept except undergrads: entm.everyone@lists.purdue.edu

Faculty: entm.faculty@lists.purdue.edu **AP Staff**: <a href="mailto:entmailto:entmailto:entmailto:entmailto:entmailto:entmailto:entmailto:entmailto:entmailto:entmailto:entmailto:entmailto:entmailto:entmailto:entmailto:entmailto:entmailto:entmailto:entmailto:entmailto:entmailto:entmailto:entmailto:entmailto:entmailto:entmailto:entmailto:entmailto:entmailto:entmailto:entmailto:entmailto:entmailto:entmailto:entmailto:entmailto:entmailto:entmailto:entmailto:entmailto:entmailto:entmailto:entmailto:entmailto:entmailto:entmailto:entmailto:entmailto:entmailto:entmailto:entmailto:entmailto:entmailto:entmailto:entmailto:entmailto:entmailto:entmailto:entmailto:entmailto:entmailto:entmailto:entmailto:entmailto:entmailto:entmailto:entmailto:entmailto:entmailto:entmailto:entmailto:entmailto:entmailto:entmailto:entmailto:entmailto:entmailto:entmailto:entmailto:entmailto:entmailto:entmailto:entmailto:entmailto:entmailto:entmailto:entmailto:entmailto:entmailto:entmailto:entmailto:entmailto:entmailto:entmailto:entmailto:entmailto:entmailto:entmailto:entmailto:entmailto:entmailto:entmailto:entmailto:entmailto:entmailto:entmailto:entmailto:entmailto:entmailto:entmailto:entmailto:entmailto:entmailto:entmailto:entmailto:entmailto:entmailto:entmailto:entmailto:entmailto:entmailto:entmailto:entmailto:entmailto:entmailto:entmailto:entmailto:entmailto:entmailto:entmailto:entmailto:entmailto:entmailto:entmailto:entmailto:entmailto:entmailto:entmailto:entmailto:entmailto:entmailto:entmailto:entmailto:entmailto:entmailto:entmailto:entmailto:entmailto:entmailto:entmailto:entmailto:entmailto:entmailto:entmailto:entmailto:entmailto:entmailto:entmailto:entmailto:entmailto:entmailto:entmailto:entmailto:entmailto:entmailto:entmailto:entmailto:entmailto:entmailto:entmailto:entmailto:entmailto:entmailto:entmailto:entmailto:entmailto:entmailto:entmailto:entmailto:entmailto:entmailto:entmailto:entmailto:entmailto:entmailto:entmailto:entmailto:entmailto:entmailto:entmailto:entmailto:entmailto:entmai

Data Storage

Department: Everyone in the department receives a personal user folder in the department Isilon share. Currently there is a one terabyte (1 TB) quota for each user. This folder is only accessible by you and IT staff.

University: All students have access to one terabyte (1 TB) of cloud storage via Microsoft OneDrive and additional storage via Box.

• University-Owned Computer Purchasing

Please discuss the need for a university-owned computer with your advisor ahead of time. Preston Wiley can also assist this process. If a computer is required, AgIT provides a list of supported computers here, which includes desktop/laptop and Dell/Mac options. AgIT will only support devices purchased through this program; they will not provide support for personal devices.

Software

General: The university offers Office 365 to all students at no cost. Office 365 is the full Microsoft Office suite - available here. This is available for install on up to five devices, including personally owned devices.

Specialized: Purdue pays for group licenses on numerous specialized programs that are free for students to use. These include, for example, statistical programs like SAS, JMP, or SPSS. Programs can be downloaded here.

Video Conferencing

There are several options for gaining access to video conferencing when needed (e.g., virtual events, committee meetings with external members). Purdue offers web conferencing for free via **Zoom** or **Microsoft Teams**.

iii. Developing a Mentoring Network

Major Professor

All graduate students are required to have one major professor who acts as chair of their advisory committee and who agrees to supervise the student's graduate study, research and thesis preparation. In some instances, a student may have two co-chairs who share equally in the advisory role as major professors. The major professor is responsible for helping to secure funding to support the grad student's stipend and their designated lab space is where students usually complete most of their research.

The nature of the mentoring relationship between student and major advisor varies with mentoring style, and we encourage open discussion of expectations early in the degree program. For example, some students meet with their major professor weekly or biweekly at a specific day/time, whereas others have a more informal schedule without set meeting periods (i.e., dropping by their office as questions or problems arise). Students are also encouraged to have an open discussion with their advisor about availability of funding to pay for research expenses (e.g., supplies, analyses), fees for travel to conferences, publication costs, or other routine activities associated with the student's project.

Advisory Committee

Selection of the advisory committee should be done in consultation with the student's major professor. Although criteria for inclusion is ultimately up to the student-advisor, committee members are typically chosen based on their expertise that contributes insight to some portion of the student's graduate research project. The role of the advisory committee is to offer advice on graduate work (including research, thesis preparation, and relevant courses), provide professional guidance, and formally evaluate students during the preliminary exam (for PhD students) and thesis/dissertation defense to confer a degree. Students are highly encouraged to use their graduate committee to its fullest capacity, e.g., send occasional research updates throughout the year; stop by individuals' offices to ask research questions or seek professional advice. While the major advisor is the primary mentor assisting graduate students, committee members can and should serve in a supporting role in this process.

Students must seek the consent of all desired faculty members requested to serve on the committee. This can be accomplished by sending potential committee members an email briefly describing the student's proposed research project and explaining why they think that faculty member would provide valuable contributions to their work. This can also be accomplished by setting up a one-on-one meeting in person between the student and a potential committee member. At this stage, students simply need an informal agreement by the faculty member, stating that they are willing to serve on their committee.

The advisory committee is formally established when the Plan of Study is submitted by the student and approved by the graduate school. **A MS advisory committee must have at least three members**: The major professor and at least two other members of the graduate faculty

(either from ENTM or other departments). A PhD advisory committee must have at least <u>four</u> members: The major professor and at least three other members of the graduate faculty, one of whom needs to be from outside the entomology department. Note that MS/PhD committees are allowed to have more than 3 or 4 committee members, respectively; however, they cannot have less than this.

All persons serving on the advisory committee MUST be Regular or Special Graduate Faculty, i.e., certified by the Purdue Graduate School to serve on the committees of graduate students. Students may include non-Purdue members on the advisory committee; for example, faculty at other universities, scientists at federal labs such as USDA and NIH, or researchers in industry. However, these members require prior approval from the Graduate School in the form of a certification as special graduate faculty. To request special certification, the major professor of the advisory committee must request in writing to the graduate administrator (apendle@purdue.edu) with clear justification for the specific expertise that the outside member brings to the student's research. An electronic version of the CV for the outside person being considered for inclusion on the advisory committee must be provided with this request. Once approved by the Graduate School, the outside person will be assigned a certification code and will be allowed to join the committee.

**Although non-Purdue individuals can be included, the majority (51%) of a student's committee <u>must</u> be a "regular faculty" member (i.e., they must be on Purdue payroll and have regular graduate faculty classification).

The advisory committee must be selected prior to the second semester of graduate study. The request to the dean of the Graduate School for appointment of the advisory committee is made at the same time as the request for approval of the student's Plan of Study, via MyPurdue "Plan of Study Generator".

iv. Addressing Graduate Student Needs

College of Agriculture Ombudsperson

The college offers formal Ombuds services, which is available free to all graduate students. The Ombuds service is an informal, neutral, and, in most cases, confidential resource for new and continuing graduate students to raise questions or concerns about any aspect of their graduate experiences. You can think of an Ombuds as a "Thinking Partner" - someone who will help you come up with options for the concern you are having. Examples of concerns that have been brought by students include relationships with major professors, conditions associated with graduate staff appointments, and academic difficulties. However, an Ombuds may assist with any issue related to your graduate education. Most meetings are usually 30 to 60 minutes. The setting is confidential to the degree allowed by law and university policy.

ENTM Graduate Committee

The department has a standing graduate committee whose purpose is to work on and improve issues related to graduate student life in the department. They deal with a variety of topics including admission and recruitment of new students, changes to curriculum/coursework, and professional development. The committee meets monthly throughout the academic year. In addition, at least once each year members of the committee meet with all grad students in the department to share both recent changes and the current agenda, as well as soliciting feedback from students on priority issues that need to be addressed in the future.

The graduate committee consists of five departmental faculty members, the graduate student advisor/administrator (Amanda Wilson), and one graduate student representative. Committee composition is on a rotating basis. For communicating urgent issues to the committee, students are encouraged to contact either the current student representative or the chair of the committee (Ian Kaplan: ikaplan@purdue.edu; office: Smith 204A; phone: 765-494-7207).

Department Head

Cate Hill (<u>hillca@purdue.edu</u>) is the current head of the entomology department and should be consulted, as appropriate, if students encounter problems that cannot be addressed by their major faculty advisor.

(III) DEPARTMENT CULTURE - LIFE IN THE DEPARTMENT

Entomology Graduate Organization (EGO)

The <u>EGO</u> is a group of graduate students in the department who meet regularly to discuss issues pertinent to grad life in Purdue Entomology and organize social events or activities. As a current grad student, you will receive an email from the EGO president regarding meeting times and location. Participation is voluntary. EGO also has a faculty representative (Elizabeth Long) who is available if and when faculty input is required.

ESA Entomology Games Team

The Entomological Society of America (ESA) hosts <u>Entomology Games</u>, a college-bowl-style contest in which student teams from competing universities test their entomological knowledge by answering questions on insect science. Our department has an all-graduate student led Entomology Games Team that regularly participates in competitions at the regional and national levels.

Coffee Break

We have departmental coffee break every Wednesday at 10am in SMTH 131. The department provides coffee and tea, and a volunteer brings in food to share with the group.

ENTM Seminars

During the fall and spring semesters, we have departmental seminars every Thursday in WSLR 116 from 3:45PM to 4:45PM, unless stated otherwise. Grad students are **highly** encouraged to participate in these weekly events. You will receive emails regarding upcoming speakers, but the semester schedule is always <u>posted</u> on the department webpage. Brock Harpur (bharpur@purdue.edu) and Subhashree Subramanyam (ssubram@purdue.edu) are the current co-chairs of the Department Seminar Committee. Please contact them if there is a speaker that you'd like to host for a seminar in the future.

Annual Events

At the departmental level, there is always a fall picnic in August to welcome new and returning students and a holiday awards party in December. Similarly, there is usually an off-campus social event to introduce new grad students to the department each September and a graduate student recruiting event in February. Details on these events (time & location) will be shared via email as they draw nearer.

(IV) GRADUATE PROGRAM ROAD MAP & MILESTONES

i. Grad Tracker System

The Graduate Student Tracking System (Grad Tracker) has been implemented in an effort to reduce paper use, streamline the processing of documents between students, faculty and graduate administrators, and to help you keep track of your administrative deadlines and duties. You can log into Grad Tracker here. You can also access the Student Grad Tracker Manual on this site for instructions on use.

Below is a list of some of the key events that you will find in Grad Tracker - this system will help you organize requirements to complete your degree.

- Initial Advisory Meeting & Goals
- Annual Committee Meeting
- Plan of Study
- Approved Research Proposal Upload
- Schedule Preliminary Exam (PhD only)
- Register for Candidacy
- Annual Student Data
- Review Graduation Dates & Deadlines
- Schedule Final Exam
- Schedule Thesis Deposit
- Department Exit Survey

Please email <u>gradtracker@purdue.edu</u> if you have any issues or inquiries related to the Grad Tracker program, if date changes need to be made, and when new members are added to a student's advisory committee.

*** Let Molly or Amanda know when you have established your advisory committee so that they can add members into Grad Tracker for progress evaluations (see tables below).

ii. Master's Program Road Map & Requirements

The Master's Program Road Map below provides an overview of major events/milestones in the timeline to complete your degree and all associated deadlines and forms that will need to be completed. You will fill out some forms in <u>GradTracker</u> and some on the <u>Grad School Database</u>, or can be accessed through <u>myPurdue</u>. In the table below <u>Grad Tracker forms appear in green</u>.

Please consult the <u>Graduate School Calendar of Dates & Deadlines</u> for specific dates each semester required for filing forms and completing the milestones listed below.

	YEAR 1	
Completed By	Program Requirements & Forms	Completion Date
	Initial Advisory Meeting w/ Major Prof	
Major Prof	Initial Advisory Meeting Rubric	1 st Semester
,	,	
Student & Major Prof	Establish Advisory Committee	2 nd Semester
Student	Submit Draft Research Proposal to Advisory	End year 1
	Committee	
	First Committee Meeting	
Major Prof	Annual Progress Review	End year 1
Committee Members	Annual Progress Review Sign-Off	End year 1
Committee Members	Communication Rubric (Written & Oral)	End year 1
Student	Annual Progress Review Sign-Off	End year 1
	Submit Plan of Study (POS)	
Student	Submit POS [Grad School Database]	End year 1
Committee Members	Approve POS [Grad School Database]	End year 1
	,,	,
	Submit Final Research Proposal	
Student	Approved Research Proposal Upload	End year 1
Committee Members	Dissertation Research Proposal Rubric	End year 1
Student	Annual Student Data	End year 1
	VEAD 2 /2	
	YEAR 2/3	
	Annual Committee Meeting	
Major Prof	Annual Progress Review	End year
Committee Members	Annual Progress Review Sign-Off	End year
Committee Members	Communication Rubric (Written & Oral)	End year
Student	Annual Progress Review Sign-Off	End year

	Register for Candidacy	
Student	Register for candidacy [MyPurdue]	
	Schedule & Complete Final Defense	
Student	Schedule Final Exam: Form 8 [MyPurdue]	
Major Prof	Report Exam Results: G.S. Form 7	
	[Grad School Database]	
Committee Members	Dissertation Defense Rubric	
Student	Thesis acceptance: Form 9 [MyPurdue]	
	Thesis Deposit & Exit Survey	
Student	Pay Thesis Deposit [MyPurdue]	
Student	Upload Thesis Deposit Receipt	
Student	Department Exit Survey	
Student	Annual Student Data	End year

iii. PhD Program Road Map & Requirements

The PhD Program Road Map below provides an overview of major events/milestones in the timeline to complete your degree and all associated deadlines and forms that will need to be completed. You will fill out some forms in <u>GradTracker</u> and some on the <u>Grad School Database</u>, or can be accessed through <u>myPurdue</u>. In the table below <u>Grad Tracker forms appear in green</u>.

Please consult the <u>Graduate School Calendar of Dates & Deadlines</u> for specific dates each semester required for filing forms and completing the milestones listed below.

	YEAR 1	
Completed By	Program Requirements & Forms	Completion Date
	Initial Advisory Meeting w/ Major Prof	
Major Prof	Initial Advisory Meeting Rubric	1 st Semester
Student & Major Prof	Establish Advisory Committee	2 nd Semester
Student	Submit Draft Research Proposal to Advisory Committee	End year 1
	First Committee Meeting	
Major prof	Annual Progress Review	End year 1
Committee members	Annual Progress Review Sign-Off	End year 1
Committee members	Communication Rubric (Written & Oral)	End year 1
Student	Annual Progress Review Sign-Off	End year 1
	Submit Plan of Study (POS)	
Student	Submit POS [Grad School Database]	End year 1
Committee members	Approve POS [Grad School Database]	End year 1
Student	Annual Student Data	End year 1
	YEAR 2	
	Annual Committee Meeting	
Major prof	Annual Progress Review	End year 2
Committee members	Annual Progress Review Sign-Off	End year 2
Committee members	Communication Rubric (Written & Oral)	End year 2
Student	Annual Progress Review Sign-Off	End year 2
	Submit Final Research Proposal	
Student	Approved Research Proposal Upload	End year 2
Committee members	Dissertation Research Proposal Rubric	End year 2

	Preliminary Exam	
Student	Schedule Exam: G.S. Form 8 [MyPurdue]	End year 2
Committee members	Preliminary Exam Rubric	End year 2
Major prof	Report Exam Results: G.S. Form 10	End year 2
,	[Grad School Database]	•
	YEAR 3	
	Annual Committee Meeting	
Major prof	Annual Progress Review	End year 3
Committee members	Annual Progress Review Sign-Off	End year 3
Committee members	Communication Rubric (Written & Oral)	End year 3
Student	Annual Progress Review Sign-Off	End year 3
	YEAR 4/5	
	Annual Committee Meeting	
Major prof	Annual Progress Review	End year 2
Committee members	Annual Progress Review Sign-Off	End year 2
Committee members	Communication Rubric (Written & Oral)	End year 2
Student	Annual Progress Review Sign-Off	End year 2
	Register for Candidacy	
Student	Register for candidacy [MyPurdue]	
	Schedule & Complete Dissertation Defense	
Student	Schedule Final Exam: Form 8 [MyPurdue]	
Major prof	Report Exam Results: G.S. Form 11	
	[Grad School Database]	
Committee members	Dissertation Defense Rubric	
Student	Thesis Acceptance: Form 9 [MyPurdue]	
	Thesis Deposit & Exit Survey	
Student	Pay Thesis Deposit [MyPurdue]	
Student	Upload Thesis Deposit Receipt	
Student	Department Exit Survey	
Student	Annual Student Data	End year
		,

(V) ENTM RESEARCH REQUIREMENTS

i. Establish Semester Goals – Documentation of Expectations for Research Credits

Before the end of the 2nd week of <u>every semester</u>, a written set of minimum expectations must be agreed upon by student and advisor. Think of this as a roadmap for what the student expects to be working on and accomplish in the near future (3-4 months). The purpose of this exercise is to provide more transparency to expectations and ensure that student-advisor are on the same page. Ideally, these expectations would be discussed and developed jointly by student and faculty. The expectations and deliverables should align with the number of credits that the student is registered for (i.e., greater expectations for more credits). Thus, less would be included on the document during semesters in which students are taking a high course load and, correspondingly, register for fewer research credits.

The specific activities and/or goals need to be formalized in a written document that is signed by both the student and the advisor. In theory, any form can be used to accomplish the above agreement; however, a generic college form is available to download here. It is ultimately at the discretion of the student and advisor to decide on the number and type of expectations. Examples of commonly listed items include:

- Completion of a writing project such as a dissertation chapter or thesis proposal. This
 could be the whole document or just part of it (e.g., I will have a rough draft of the
 Introduction and Methods sections).
- Submitting a grant or fellowship proposal
- Conducting all or part of an experiment
- Processing or analyzing samples collected as part of an earlier study
- Performing a statistical analysis or other forms of data entry and interpretation
- Meeting with committee members or collaborators to provide research updates
- Giving a talk or poster presentation at a conference
- Reviewing the published literature on a given topic

ii. Research Proposal Guidelines & Examples

Below are general guidelines for preparing your research proposal. Sections and format may vary, so make sure to discuss your research proposal topic and format with your major advisor and advisory committee. Your research proposal must be approved by your advisory committee, typically by the end of the first year of your graduate program. If your proposal is determined to be unsatisfactory, you will be asked to make edits and revisions before it is officially approved.

The research proposal length will vary. As a general guideline, a MS should be 10-12 pages and PhD 15-20 pages (not including References) but can be longer. Single-spaced, 12-point font.

Examples of a few previous MS an PhD proposals from the department are available here for MS (<u>Ex. 1</u>, <u>Ex. 2</u>, <u>Ex. 3</u>) and PhD (<u>Ex. 1</u>, <u>Ex. 2</u>). No proposal is perfect and neither are these examples; they are simply provided as a general reference to illustrate what a finalized proposal should look like in the end. The style, structure, section headers/ordering and other formatting aspects are up to the student's discretion; however, below we outline a widely accepted and effective proposal framework that is recommended for use by all students.

Research Proposal Narrative [10-15 pages]

The following sections are typically included in a MS/PhD research proposal – they represent standard sections and formatting for grant proposals to agencies like USDA/NSF and will therefore broadly prepare students to write future grants. Sections can vary, check with your major advisor on their expectations for proposal structure and content.

a) Project Overview/Summary:

Provide a general overview of your research proposal that includes: 1) broader research questions, 2) specific objectives, 3) proposed methods, and 4) overall significance. Similar to an abstract of a manuscript or grant proposal summary (500 words max) - the purpose is to concisely give an overview of your proposed research that is understandable to a broad audience. Sell the reader on your ideas and get them excited to read more! Another option is to expand this section to 1pg, ending with a statement of research objectives/aims as well as expected outcomes. Both formats are common in grant writing.

b) Introduction/Background:

Identify the problem or broader question you are interested in and then narrow down to your specific questions. Frame the knowledge gaps by providing relevant background information (previous theory, research, etc.). The goal is to funnel from broad to specific questions (i.e., hierarchy of questions, bridge from large problems to narrow research questions) while clearly identifying the knowledge gaps and why they are important.

This section should be more than a literature review, it should provide a framework of questions and outline knowledge gaps. Use subsections to identify key areas/ideas if needed.

Lastly, include several paragraphs describing the study system in which you intend to address your specific research questions. This section does not need to be overly detailed but should provide the reader enough background information to understand the basic biology of the system and how it will be used to address your research questions/test hypotheses (e.g., life cycles, previous research in system relevant to research questions).

c) Outline Research Objectives:

Before describing the research you will conduct, clearly state the research objectives.

Objective 1 [i.e. Examine..., Characterize..., Compare..., Determine.., Evaluate..., Develop...]
Objective 2
Objective 3

d) Rationale and Significance:

Describe long-term goals and broader significance of proposed research. Frame your proposed research in a more general context — why does anyone that is not a bug nerd care about your work? Emphasize what is novel about your proposed research and how your research will advance our knowledge in the field. Should be 2-3 paragraphs.

e) Proposed Thesis/Dissertation Research: Outline Chapters

For a MS Thesis you will typically have 1-2 Chapters and for a PhD Dissertation you will typically have 3-4 Chapters. Each research chapter should include the following sections outlined below.

Chapter #: [Objective #]

Hypothesis & Predictions (if applicable)

State hypothesis you will be testing. Use "If []... then []" format to make specific predictions in data/results based off of hypothesis. The predictions are a way for you to begin to think about potential outcomes of your experiments and what patterns/trends you might see in your data that would either support or refute your hypothesis.

Methods & Materials

Include a description of 1) insects, plants, etc. that will be used or collected, 2) experimental design (treatments, replicates, sampling locations, species, etc.), and 3) the data you are collecting (what are you measuring?). It should be clear what your controls are and why they are being used. If applicable, you should also describe how you are rearing/maintaining insect colonies, growing plants, etc.

Data Analysis

Describe the statistical analyses you plan to use to test your hypotheses. Include relevant descriptions of stats models (e.g., ANOVA, PCA, GLMM, Phylogenetic analyses) and programs you will use (e.g., R packages, SPSS, SAS, other)

Potential Pitfalls & Limitations

Identify potential issues that may arise and limitations to your experimental design. For example, describe additional approaches/measures/treatments that could be incorporated should your original design not work out.

Preliminary Results/Progress to Date

Report any activities/progress to date. This could be a description of a method you have developed (e.g., RNA/DNA extraction, bioassay, model developed, insect cage design) or when and where samples have been collected for future analysis. If you performed a prelim/pilot study report results here. You should include relevant pictures, graphs, or tables.

f) <u>Project Timeline</u> [1 page]

Provide a table or figure showing the timeline of experiments, data analysis, and when you will begin to write up results for publication. Identify when key activities associated with experiments will be completed. For example, will samples be collected at specific times of the year (fall, spring, etc.), how long will experiments run (a month, a week) and how much time do you estimate sample processing will take (e.g., data analysis, sequencing, field work).

g) References [no page limit]

Provide a list of references in a standard journal format of your choosing (e.g., Environmental Entomology, Current Biology). Please check these carefully to ensure there are no mistakes or inconsistencies. We strongly recommend using a reference manager like <u>Zotero</u>.

iii. Annual Committee Meeting Guidelines & Expectations

The advisory committee is required to meet at least annually, starting in year one of the degree, to determine the student's progress and provide guidance. Committee meetings are tracked using grad tracker. Students must notify gradtracker@purdue.edu of all scheduled meetings. Students shall log into grad tracker and complete the "student data form" to initiate the meeting. Once this is complete, each faculty member will complete an "annual progress form". Students will sign off on the annual progress form once completed. Review the students will sign off on the annual progress form once completed. Review the grad tracker manual for specific details.

Typically, students coordinate a meeting day and time using platforms such as When Is Good. Faculty are notorious for having extremely busy schedules so this should be arranged well ahead of your preferred meeting time (at least several weeks). You should plan for a 1-2 hour block of time. Some meetings take one hour, but many end up a bit longer than this (75-90 mins). Upon agreeing on a meeting time, students should send a calendar invite to their committee with the date, time, and location. To do so, you will need to reserve a conference room with a projector. See Molly in the main office to make a reservation; there are several options across a few buildings on campus. Students should also send an email to gradtracker@purdue.edu, so the meeting date can be scheduled.

For committee meetings, students usually prepare a PowerPoint presentation describing their progress. Keep in mind that most faculty will stop and ask you questions along the way. This should be accounted for in the length of your planned presentation. Although most of the presentation should be dedicated to research progress, don't forget to also include topics such as: coursework (presentation of the Plan of Study for approval), professional development activities (e.g., conference presentations), CV development (e.g., awards or grants received), and plans for the prelim exam (for PhD students). All of the above should be presented from two perspectives: first, what have you accomplished in these areas since you last met (i.e., past 12 months) and, second, what are your plans for the upcoming year? It is also helpful to include an anticipated timeline to graduate as you pass the mid-point of your degree.

iv. Exam Guidelines (PhD Prelim Exam, PhD/MS Defense & Final Exam)

PhD Preliminary Exam

The format and general areas to be included in the PhD Preliminary Exam will be defined by the members of the examining committee in consultation with the student. The student is urged to consult with the examining committee regarding the areas of knowledge for which they may be required to show competency. The purpose of the exam is to assess student progress and aptitude in a way that enables the program to be tailored to the specific needs and career aspirations of each student. In general, the Preliminary Exam tests a student in the following areas to identify strengths and areas that need improvement.

- o Breadth and depth of knowledge in entomology and relevant STEM fields
- Critical thinking skills (e.g., ability to frame testable hypotheses, identify critical scientific knowledge gaps, review & synthesize literature, understanding of broader significance of student's research)
- Written and oral communication skills
- Mastery of the scientific method; experimental design & analysis

It is recommended that the preliminary exam be taken by the end of the second year after entering the PhD program, but must be completed no later than the first semester of the third year. Advancing to candidacy early in their doctoral study affords students several advantages, including pursuing supplemental federal grant funding opportunities that are restricted to candidates only (e.g., USDA NIFA predoctoral fellowships) and allowing the student to focus more clearly on research, analysis and dissertation writing in the latter years of their course of study at Purdue. The precise timing of the exam is at the discretion of the committee and will consider progress made on the Plan of Study, previous educational background of the student, and the student's post-graduate plans.

• Student Eligibility & Examining Committee

To become eligible to take the preliminary exam, a graduate student must have filed a Plan of Study, uploaded an approved research proposal to Grad Tracker and satisfactorily completed most of the required coursework.

The examination is conducted by an examining committee of at least three graduate faculty. Typically, in entomology the examining committee is identical to the advisory committee.

The Request for the Appointment of the Preliminary Examination Committee Form (Electronic GS Form 8 via MyPurdue) must be filed not less than two weeks prior the oral examination.

General Structure (Written & Oral Components)

The exam has both a written and oral component, which offers considerable flexibility.

Written component – The decision on which written option to pursue is made by the student's advisor and examining committee in consultation with the student. It is highly recommended and standard that individuals email their committee the written document 2 weeks prior to the exam. Student and examining committee choose one of the following options:

- 1) Answer set of questions from each examining committee member covering both general & subject-specific knowledge
- 2) Critical analysis of selected journal publications related to dissertation research. Exam committee approves articles, student submits 3-5 page analysis/review.
- 3) Critical review of literature or meta-analysis. This would, ideally, lead to publication with advisor/committee help and guidance.
- 4) Grant proposal written for an outside agency (e.g., NSF, USDA, NIH) on a topic related or unrelated to the student's dissertation research, ideally to be submitted for funding (this is not mandatory). However, the proposal must be in the format specified by a federal granting agency (i.e., follow the guidelines of a recent RFA), including narrative, budget, project summary, etc. In cases where the proposal is related to the student's dissertation work, the topic should be sufficiently different that it pushes students outside of their comfort zone. In other words, this should not simply be a 4th or 5th chapter of the PhD project. The degree of "closeness" of the proposed work is at the discretion of the examining committee and should be discussed ahead of time.

Oral component – Revisit/defend written exam portion. The oral exam is limited to 2 hours in length. When the written preliminary examination has been completed to the satisfaction of the examining committee, an oral examination will be conducted and may cover all subjects that the examining committee feels are reasonable in assessing the potential of the PhD candidate. The specific format of the exam depends on the written option selected, but may include, for example, clarification or additional detail on the student responses to questions, literature omitted from their review, or the feasibility of implementing experiments proposed in the grant proposal (i.e., mock grant review panel).

Evaluation & Advancing to Candidacy

The Preliminary Exam oral/written components are evaluated and assigned one of the following categories: (report exam results on G.S. Form 10 and complete Prelim rubric on gradtracker)

- 1) Satisfactory/pass: no other action required.
- 2) Conditional Pass: the student does not repeat any component of the exam but is given feedback on specific, mandatory areas for improvement by the committee (may include additional coursework, rewriting sections of written portion, etc.)
- 3) Unsatisfactory: the portion of the exam evaluated as unsatisfactory must be retaken. The student may make one additional attempt, but not within the same semester. Failing the second attempt will result in dismissal from the program (per Graduate School guidelines).

The student is admitted to doctoral candidacy upon satisfactory completion of the preliminary examination. If the report is unfavorable, the examining committee may recommend that the student be permitted to request a second examination by submitting a new request G.S. Form 8. The student must wait at least until the following session (including summer session) to repeat the examination. If failed twice, a student may not be given a third examination except upon the recommendation of his/her examining committee and with the special approval of the University's Graduate Council.

The Report of Preliminary Exam (Electronic Form GC 10) must be signed by the examining committee and recorded by the Head of the Graduate Program (who is the Dept. Head of Entomology) and received by the graduate school two weeks before the end of the semester. Preliminary examinations cannot be held during dead week.

PhD/MS Final Defense & Examination

After a student's research has been completed and the written dissertation/thesis has been presented to the advisory committee for approval, a final oral defense and examination must be held in which the candidate defends the dissertation/thesis and demonstrates to the examining committee the capabilities for which the PhD/MS degree is to be awarded.

Final examinations must be held before the last week of classes and cannot be scheduled during "dead week". The examination is limited to two hours on one day, but if necessary, it may continue on a subsequent day. Each PhD/MS Final Defense & Examination will be publicly announced so that interested members of the Purdue faculty and student body may attend.

The final defense and examination must be scheduled with the Graduate School by submitting the Request for Appointment of Examining Committee (Electronic GS Form 8 via MyPurdue) no less than two weeks in advance of the final examination. When the Request for Appointment of Examining Committee (G.S. Form 8) is approved by the Graduate School, an approved copy of the form will be sent to the departmental graduate office with the following additional

materials for the candidate: a) Report of the Final Examination (G.S. Form 11); b) Thesis Acceptance (G.S. Form 9); c) exit questionnaire; d) a Doctoral Dissertation Agreement Form with ProQuest Information and Learning and an Addendum (G.S. Form 14) to that form; and e) a survey form on Earned Doctorates Awarded in the United States.

The Final Examination Reports (Electronic GS Form 7 (for master's) or Electronic GS Form 11 (for PhD)) must be signed by the examining committee and recorded by the Head of the Graduate Program (who is the Department Head for Entomology) and received by the Graduate School two weeks before the end of the semester.

The final exam is conducted by an examination committee, which is generally the same as the student's advisory committee. As with the advisory committee, 51% of your committee must be a "regular faculty" member (i.e., they must be on Purdue payroll and have regular graduate faculty classification). The first part of the examination includes an oral presentation (at least 30 minutes in length) of the thesis research and is open to the public. It is followed by a closed session during which the examining committee may ask questions over major and related areas, and the student presents a defense of the thesis.

• Master's Degree Final Examination Requirements

The final exam for the MS is conducted by an examination committee consisting of three or more members. Three positive votes are required for the student to pass the final exam.

• Doctoral Degree Final Examination Requirements

At least two semesters must elapse between the preliminary and final doctoral examinations. For instance, a doctoral student who passes the preliminary examination in a summer session is eligible to take the final examination (provided that the student is registered the following fall and spring semesters) beginning with the following summer session. The final exam for the PhD is conducted by an examination committee consisting of four or more members. A majority positive votes of committee members is required for the student to pass the final exam.

v. Thesis & Dissertation Guidelines & Examples

We strongly encourage students to visit the Purdue Graduate School <u>Thesis & Dissertation</u> <u>Office website</u> for up-to-date information and guidance on preparation and submission procedures. This website also provides thesis templates and an option to schedule a formatting consultation meeting with an advisor. While this step is optional, it ensures that you will be 100% formatted before you defend and can help reduce the number of formatting errors that are typically caught during the deposit process.

All graduate thesis/dissertation documents in the Department of Entomology shall include as a minimum: Thesis/Dissertation Acceptance Form, Title Page, Table of Contents, Abstract, and the text body shall include a general introduction to the project (e.g., a literature review) and chapters that are presented in a style suitable for submission to refereed journals. The general

format of the thesis shall be as outlined in the 8th revised edition (2017) of "<u>A Manual for the Preparation of Graduate Theses</u>" of Purdue University. Students are strongly encouraged to consult this document while preparing their final draft.

A first draft should be sent to the major professor at least six weeks before the tentative exam defense date, or a time mutually agreed upon. After approval by the major professor, the document should then be submitted to the final examining committee for evaluation. Each member of the advisory committee must receive a copy of the thesis/dissertation at least two weeks before the date of the final defense examination.

After the examining committee meets, the student prepares a final copy of the thesis or dissertation. That copy, called the "deposit" copy, incorporates all revisions requested by the members of the examining committee. Students will submit their deposit copies in electronic form via the Purdue Electronic Thesis Deposit (ETD) website.

Upon successful deposit, degree candidates are provided a Thesis Receipt (G.S. Form 16) from the Thesis/Dissertation Office. A copy of the receipt must be delivered to the Graduate School Student Records Office (Room 170, Young Hall) no later than the close of business (5 p.m.) on the last day of classes of the session in which their degree is to be awarded.

Choice of Non-Thesis Option

Students may choose a non-thesis option (MS degree only, not PhD) based in part on a careful consideration of the student's interests, career goals, and discussion with their major advisor.

Requirements of the Non-Thesis Student

- 1) A minimum of 30 semester hours of graded course work (i.e., not research credits); must be included in Plan of Study.
- 2) A maximum of six credits of 300 and/or 400-level courses, taken while enrolled as a graduate student, may be included in the plan of study: 100- and 200- level courses are not permitted.
- 3) In lieu of a thesis project, some individual creative activity—above and beyond course work—related to the student's area of interest, and approved by the advisory committee shall be undertaken at some time during the student's tenure. This may, for example, involve short-term research projects; hands-on field, laboratory, extension, or teaching experience; an apprenticeship in a skill-oriented job; library research; documentation; cataloguing, or display. The student will make an oral and written report of the activity that will be made available to the faculty.
- 4) A written and/or oral examination must be passed as partial fulfillment for the degree. The examination is to be administered in the proposed final semester of study. The examination shall be formulated and conducted by an Examining Committee consisting

of three or more members. If the Examining Committee is composed of individuals different from the Advisory Committee, the written and/or oral examination must be scheduled by the Graduate School by submitting the G.S., Form 8, Request for Appointment of Examining Committee (see appendix) and specifying non-thesis masters option not less than two weeks in advance of the final examination. If the Examining Committee has four or more members, only one negative vote may be recorded if the student is to pass the final exam. The Final Examination Report must be signed by the Examining Committee and recorded by the Head of the Graduate Program (who is the Department Head for Entomology) and received by the Graduate School at least two weeks before the end of the semester. To meet this deadline, final examinations must be held before the last week of classes. Final examinations cannot be scheduled during "dead week". An oral examination is limited to two hours on one day, but, if necessary, it may continue on a subsequent day. A candidate should consult with members of his/her committee regarding the areas of competency expected and the format of the examination.

(VI) ENTM GRADUATE CURRICULUM & DEGREE REQUIREMENTS

i. Registering for Classes

To officially be considered a full-time graduate student, domestic students must be enrolled in 8 or more credit hours in the Fall and Spring semesters, and 6 or more in the Summer semester. International students, who are employed half-time, must be enrolled in 8 or more credit hours in the Fall and Spring semesters to be considered full time by the registrar's office and Immigration law.

To ensure a student has sufficient credit hours for degree completion, The Department of Entomology pre-sets research credit selections to 6 credits and 12 credits (ENTM 69800/ENTM 69900) in Fall and Spring semesters and 9 credits of research in the Summer semester. Students are encouraged to take a minimum of 12 credits and a maximum of 18 credits in the Fall and Spring semesters. As an Entomology student you will first enroll in any coursework you plan to take in the given Fall/Spring semester, then select one of the pre-set research courses (6 credits or 12 credits of ENTM 69800/69900 with your Faculty as instructor) to fill the rest of your semester; a minimum of 12 credits and maximum of 18 credits.

Entomology Students will enroll in 9 credit pre-set ENTM 69800/69900 course with your faculty as instructor. If you choose to take a course work in the summer session, contact Amanda Wilson apendle@purdue.edu to request a specific research course set up for you.

Students may not make changes to plans of study, complete exams, etc., if not currently registered. Late registration will result in additional fees.

Eligibility & Registration Status

Students are eligible to register after they receive a formal letter of admission from Purdue's Graduate School. First semester students must submit their official final transcript and proof of their prior degree, as specified as a condition of admission into Purdue's graduate program, to be eligible to register for the second semester.

Students can check their registration status / time ticket via myPurdue. Registration should be completed when time tickets open to ensure the desired class schedule. Time ticket groups are also listed on the registrar's page: Your PIN for registration is ALWAYS 999999 (six 9s).

Register for Coursework

Consult with your major professor before registering for each semester's courses. Students can find CRN #s by logging into myPurdue and clicking on "View the schedule of classes". Register via the Add/Drop link in myPurdue, except for any courses which require signature/approval. Those courses which require a signature/approval should be requested using the "Scheduling Assistant" via myPurdue.

Register for Research Credits

PhD (ENTM 69900) and MS (ENTM 69800) students are required to enroll in research credits EVERY semester in which they have funding. Research credit is designated by major professor and by credit hour. Be sure to select your major professor as "instructor" and the appropriate number of credits (6 or 12). If you need a specific number of credits (other than the 6/12 credit option) you will need to complete a form 23VT*. The maximum number of research credits allowed per semester is 18.

Registration in the Final Academic Session

All students must be registered for at least one credit in the session they plan to graduate. Students with outstanding incomplete grades for courses listed on the plan of study will not be permitted to graduate. The Grad School asks that all candidate requests after the first week of classes be sent to gradweb@purdue.edu to make sure a candidate audit is created.

Exam/Degree Only Registration

Exam/degree only registration is designed for students who have secured a job or a position at another university, requiring them to graduate midterm for a reduced fee.

Examination only registration **CAND 99300**: A student who has completed the GS registration (30 credits for MS and 90 credits PhD) and who has finished all degree requirements except for the final exam and depositing the thesis prior to the first day of the academic session of graduation may request registration for examination only at a reduced fee. Thesis option students must also have been registered for at least one hour of 69800/69900 with a grade of S in the previous spring/fall session.

Degree only registration **CAND 99200**: A student who has completed the GS registration (30 credits for MS and 90 credits for PhD) and who has finished all degree requirements except for depositing the thesis and for whom a positive Report of the Final Examination has been received in the Graduate School prior to the first day of the academic session of graduation but who has not been awarded the degree may request registration for degree only at a reduced fee. Thesis option students must also have been registered for at least one hour of research, with a grade of S in the previous spring/fall session.

A paper form 23 must be signed and submitted to request addition of CAND 99200/CAND 99300 and sent to the Graduate School for approval and processing. Additional details can be found on the GS handbook here: <u>V. Registration of Graduate Students - Purdue University - Acalog ACMS™</u>

ii. Submitting a Plan of Study (POS)

Each graduate student that is admitted into a degree program must file a Plan of Study electronically using Purdue's Plan of Study Generator, via my-number my-number my-

initiated during the first semester of study and submitted by the end of first year of study. The POS lists graduate level coursework that aligns with primary and related areas that are tailored to the student's interest and needs. The POS must be discussed with and approved by the student's advisory committee. Before filing the POS, a student must have filed official transcripts showing receipt of all previous degrees with the Graduate School (i.e., meets eligibility requirements to register for classes). Transfer of graduate credits from other institutions is rare, but may be possible in certain circumstances (e.g., student moves middegree from another university with major advisor to Purdue).

Graduate courses taken while registered at Purdue University may be considered for fulfilling the POS requirements only if the student has received a grade of C- or better.

The following are **NOT** included in the **POS**:

- Research Credits (69800, 69900)
- 100 or 200 level courses
- No more than six 300 or 400 level course credits are allowable on the POS

If you encounter issues in filing your Plan of Study, or using the graduate school database, please email gradinfo@purdue.edu

Excess Undergraduate Credits

The sum of credits earned as undergraduate excess and the credits earned in post baccalaureate, teacher license, or graduate certificate status that can be used on a plan of study is limited to 12 credit hours.

Initiating the POS & Submitting a Draft POS for Approval

- o Go to myPurdue → Click on the Academic tab
- o Select the Graduate School Plan of Study link and log in using your career account
- Select the Plan of Study Generator link; this step will require you to log in <u>again</u> using your career account
- Select 'Create New Plan of Study' and add the following:
 - ✓ General information to the form (name, degree program, etc.)
 - ✓ Major professor
 - ✓ Courses you plan to take your first semester (e.g., ENTM 60000, GRAD 61200 these must be listed in Pass/No Pass section only + additional courses)
 - ✓ Once you are in the Plan of Study Generator, you can refer to the Help buttons on each page or contact the graduate school, gradinfo@purdue.edu
 - ✓ Save your POS and return later to complete the remainder of your planned coursework (after advisory committee meeting and approval)

Once you have approval from your advisory committee** and the remainder of your coursework is added, you may submit as a draft POS that will be reviewed by administrators before you submit as a final POS.

**If any members of your graduate committee work OUTSIDE of Purdue, then they can't access the Grad School Database (GSDb). Please ask them to email Amanda saying they approve of your plan so that she can proxy-sign for them. Here is a template for what to email to your committee member:

"Hello Dr. NAME,

As a committee member without access to Purdue's Graduate School Database (GSDb), my academic advisor Amanda Wilson will sign off on GSDb forms for you. Please email her apendle@purdue.edu with confirmation that you approve of my plan of study. ENTM's graduate curriculum can be found on our website under Degrees & Programs https://www.entm.purdue.edu/prospective-grads/index.html
YOUR NAME"

iii. ENTM Graduate Courses & Degree Requirements

Credit Requirements for ENTM Graduate Degrees

- Master's Degree (thesis option): Minimum 30 total hours combined coursework & research credits
- Non-thesis Master's Degree: Minimum 30 course credit hours graded coursework.
 ENTM 69800/ENTM 69900 research credit hours do not count towards a Non-thesis Master's.
- Doctoral Degree: Minimum 90 total hours combined coursework & research credits

ENTM Graduate Curriculum

The curriculum for students seeking a PhD or MS in Entomology is composed of an individualized blend of required and selective coursework. Students are encouraged to explore their field of study and develop an academic program that broadly reflects their interests. Although scheduling of courses is up to student and advisor, students generally complete coursework early in the degree to focus on research later in the program. See the table below outlining the specific course requirements and selectives.

Required Cours	ses	No. credit hrs	Semester offered
Ethics GRAD 61200	Responsible Conduct in Research (variable)	1	Fall & Spring
Entomology ENTM 60000	Graduate Student Orientation (Hill)	1	Fall

Core Selective Courses		No. credit hrs	Semester offered
Entomology (PhD, select 3; MS, select 2)			
ENTM 50800	Integrative Insect Taxonomy (Smith)	4	Fall even years
ENTM 52500	Medical & Veterinary Entomology (Hill)	3	Spring odd years
ENTM 61000	Insect Pest Management (Krupke)	3	Fall even years
ENTM 61100	Toxicology of Insecticides (Pittendrigh)	3	Spring even years
ENTM 6XX	Insect Genomics (Harpur)	3	Spring even years
Statistics (select 2	1)		
STAT 50300	Statistical Methods for Biology (variable)	3	Fall & Spring
BIOL 58210	Ecological Statistics (Fernandez-Juricic)	3	Fall
ENTM 64200	Analysis of Ecological Data (Holland)	3	Spring odd years
Special Topics (PhD, select 2; MS, select 1)			
ENTM 69200	Special Topics in Entomology	variable	Fall & Spring

Professional Development		No. credit hrs	Semester offered
Coursework (sele	ect 1)		
GRAD 55000	Fellowship & Grant Application Writing (Nielsen)	1	Fall
GRAD 59000	Preparing Future Faculty (variable)	1-3	Fall
GRAD 59000 ENTM 60900	Grant Writing Light (Nielsen) Scientific Writing (Enders & Kaplan)	1 1	Spring Fall even years

Schedule of Courses

Course listings are subject to change and the course title, availability, and instructors for 692 special topics will vary by year and semester. See Degrees and Programs on the ENTM Graduate Program webpage for a listing of available courses in the current and upcoming semesters.

Options for Non-ENTM Grad Courses & Additional Coursework

Taking additional coursework—either in entomology or other departments in the college—above and beyond the curriculum outlined above is perfectly acceptable and, in some cases, encouraged. Additional coursework should be discussed and approved by the student's advisory committee before submitting a Plan of Study (POS). Graduate students may include up to 6 credits worth of 300- or 400-level coursework on their POS, in addition to their 500- and 600-level classes.

Courses with similar content taken as part of an earlier degree program cannot be used to fulfill MS or PhD program requirements.

Master's students are required to take 2 ENTM Core Selective Courses from the list above and may not substitute courses from other departments to fulfill this requirement. PhD students may substitute <u>one</u> of their 3 ENTM Core Selective Courses from another department without prior approval by the Graduate Committee; however, it must be a 3-4 cr. graduate level course that has been approved by the student's advisory committee.

Any further modifications to the above curriculum and stated requirements must be approved by the Graduate Committee prior to submitting the POS!

(VII) PROFESSIONAL DEVELOPMENT OPPORTUNITIES & RESOURCES

Purdue Graduate School Resources

The Graduate School's Office of Professional Development has many resources to support students preparing for the job market, including workshops, online resources, academic competitions, and innovative community engagement programs. For example, the Graduate School hosts several events that provide opportunities to develop public speaking skills, such as the annual Three Minute Thesis (3MT) competition. Information on this and related events is regularly communicated by the Graduate School over email – but also check out the Find Workshops page to sign up for events each semester (see Graduate School Calendar of Events).

Participation in Professional Conferences/Workshops

Most students choose to attend the <u>ESA</u> (Entomological Society of America) national meeting in November and/or ESA <u>North Central Branch</u> meeting in March each year to give either a talk or poster presentation. Attendance is highly encouraged but should be discussed with your advisor. You are also encouraged to participate in some of the disciplinary conferences (e.g., ecology, molecular biology, pest management) that are specific to your graduate research topic or study organism, as well as local events such as the annual meeting of the <u>Indiana Academy of Sciences</u>. This provides opportunities to connect with non-entomology scientists who may be highly interested in your findings.

<u>Awards</u>

There are a number of internal (Purdue) and external (society) awards that students can apply or be nominated for. We strongly encourage students to pursue these opportunities as appropriate. Internally, Purdue Entomology gives out three awards each year for Outstanding MS student, Outstanding PhD student, and Outstanding Service. Similarly, the College of Agriculture gives out awards in several areas, including teaching and mentoring excellence. Nomination procedures and due dates on Purdue-specific award opportunities will be communicated over email throughout the year.

The Entomological Society of America gives out several student awards annually at both the <u>national</u> and <u>branch</u> levels. These include travel awards, activity awards, and the John Henry Comstock award given to an outstanding graduate student in each branch (based on scientific quality of research, publications and presentations, and involvement in professional activities). These are typically solicited between April and June; however, please consult ESA websites for specific due dates and nomination requirements.

Fellowships

Students can receive fellowships, which are competitive and awarded to the individual based on their accomplishments. Purdue offers several recruiting fellowships (e.g., Ross, Andrews, Knox, Carver) that are allocated to students during the application process (i.e., prior to their arrival on campus). In this case, the student's future advisor is the one who submits the

application. Some international students also arrive at Purdue with fellowships from their home country or through organizations promoting international relations such as the Fulbright Program. However, students can apply for fellowships themselves during their degree program. These include:

<u>Bilsland Fellowship</u>: These are provided by the Graduate School at Purdue to fund the final 4-12 months of a PhD student's degree (MS students are ineligible). The grad chair sends out a call in the spring semester with information on how to apply. PhD students must have advanced to candidacy (i.e., passed their prelim exam) to be eligible.

Outside Fellowships: There are dozens of potential fellowships funded by companies, private foundations, and government agencies to support graduate studies. The grad school maintains a database of opportunities here. However, the two most relevant ones for entomology students are:

- <u>NSF Graduate Research Fellowship Program</u> (GRFP). These are usually due in October (but varies by year; see RFA).
- <u>USDA AFRI Predoctoral Fellowship</u>. These are usually due in August (but varies by year; see RFA).

Both of these fellowships are offered to student early in their degree programs (first year or two) so we encourage you to not wait, if interested.

Student Grants

There are a limited number of small grants that students can apply for to either support their research or travel to present at scientific conferences. These opportunities, including those offered via the Purdue Graduate School and some choice external funding options (e.g., Sigma Xi) are nicely summarized here. Many students fail to take advantage of these opportunities. This is a mistake. Our students are highly competitive for these grants, but only if they choose to apply. In addition to providing the necessary funding to conduct your research project, they are also viewed highly by future employers on student CVs.