

GRADUATE STUDENT HANDBOOK

DEPARTMENT OF ENTOMOLOGY AND PLANT PATHOLOGY

Oklahoma State University

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Table of Contents	Page
Introduction.....	6
Departmental History.....	6
After Admittance.....	7
Scientific Literature.....	7
Professional Courtesy.....	8
Seminars.....	8
Class Attendance.....	8
Holidays and Annual Leave.....	8
Completing Research, Theses, and Dissertations in a Timely Manner.....	9
Letters of Recommendation/Reference Letters.....	9
Teaching Experience.....	9
Professional Societies and Student Organizations	
American Phytopathological Society (APS).....	10
Southern Division APS.....	10
Entomological Society of America (ESA).....	10
Southwestern Branch ESA.....	10
EPP Graduate Student Association.....	10
Professional Ethics (RCR training).....	10
Title VII and Title XI Training.....	11
Plagiarism.....	11
Computer Usage/Software Licensing.....	11
Safety	
Laboratory Safety.....	12
Biological Safety.....	13
Radiation Safety.....	13
Institutional Review Board (IRB).....	14
Permits.....	14
Motor Pool.....	14
Departmental Vehicle.....	15
Travel	
Out-of-State Travel (Flying or Driving).....	15
Register for Conference or Meeting.....	16
Arrange Transportation (“Concur” system).....	16
Direct Purchase of Airfare and Baggage Fees with the P-card.....	16
Other Forms of Transportation.....	16
Reserve a Hotel Room.....	17
Designated Conference Hotel or Location.....	17
Cost Comparisons.....	17
Meals.....	17
Take Your Trip, and When You Return.....	17
Travel Reimbursement Voucher.....	18
In-State Travel Reimbursement (Driving).....	18
Master’s Degree Program.....	19
Entrance Requirements for Graduate Programs.....	19
Master’s Graduate Study Guidelines.....	19
Expectations for Degree Requirements and Deadlines.....	19
Selection of Advisory Committee.....	20

Master's Degree Plan-of-Study (POS).....	21
Basic Requirements to be Completed by ALL Master's Degree Students	21
Introductory Seminar.....	22
Research Proposal.....	22
Annual Review of Graduate Student Performance	23
Research.....	23
Master's Degree Thesis	
Important Graduation Dates, Deadlines, and Forms.....	23
Application for Diploma.....	23
Final Semester Graduate College Forms.....	23
Thesis Format.....	23
Master's Degree Final Examination.....	24
Final Copy of Thesis.....	24
Completion.....	24
Congratulations.....	24
Tips.....	24
Responsibilities for Master's Degree.....	25
Department Head.....	25
Major Advisor.....	25
Committee.....	25
Student.....	25
Master's Degree Graduate Student Checklist.....	26
Doctor of Philosophy.....	27
Entrance Requirements for Graduate Programs.....	27
General Requirements.....	27
Doctorate Graduate Study Guidelines.....	27
Expectations for Degree Requirements and Deadlines.....	27
Selection of Advisory Committee.....	27
Doctoral Degree Plan-of-Study.....	28
Doctor of Philosophy Degree Program Requirements	
PhD – Entomology.....	29
PhD - Plant Pathology.....	29
Introductory Seminar.....	30
Research Proposal.....	30
Annual Review of Graduate Student Progress.....	30
Research.....	31
Residence Requirements.....	31
Qualifying Examination.....	31
Written Qualifying Examination.....	31
Oral Qualifying Examination.....	32
Admission to Doctoral Candidacy.....	32
Doctoral Dissertation	
Important Graduation Dates, Deadlines, and Forms.....	32
Application for Diploma.....	32
Final Semester Graduate College Forms.....	33
Dissertation Format.....	33
Oral Defense of Dissertation.....	33
Final Copy of Dissertation.....	33
Completion.....	33

Congratulations.....	33
Responsibilities for the Doctoral Program.....	34
Department Head.....	34
Major Advisor.....	34
Advisory Committee.....	34
Student.....	34
Doctoral Degree Graduate Student Checklist.....	35

Appendices

Appendix A – Departmental Procedures, Faculty, Forms, Course Offerings, Check Lists..... 36

Operational Functions	
Office and Desk Assignments.....	36
Door Keys.....	36
Photocopying and Scanning.....	36
Poster Making.....	36
Faculty Areas of Interests	
Entomology.....	36
Plant Pathology.....	37
Adjunct Faculty-Entomology.....	37
Adjunct Faculty-Plant Pathology.....	37
Additional Faculty-Entomology and Plant Pathology.....	37
Ento/Plp Annual Review of Graduate Students form.....	38
Thesis/Dissertation Committee Meeting Report form.....	39
Ento/Plp PhD Qualifying Examination Results.....	40
Schedule of Course Offerings.....	41
Common Plan-of-Study (POS) Problems.....	46
Six Main Reasons Students Fail to Graduate on Time.....	47

Appendix B - Miscellaneous Information & Requirements..... 48

Assistance Contacts within the Department.....	48
Entrance Requirements for Graduate Programs.....	48
For the MS Entomology Option.....	48
For the MS Plant Pathology Option.....	48
For the PhD Program.....	48
Graduate College Time Limits.....	49
Financial Support – Graduate Assistantships.....	49
Enrollment Requirements.....	49
Tuition Waiver for GRA/GTA.....	50
Non-Resident Tuition Waivers.....	50
Graduate Student Health Insurance.....	50
Academic Standing.....	51
Health Insurance/Student Health Clinic.....	51
Campus Map.....	51
Parking Permits.....	52
Housing.....	52
International Students and Scholars (ISS).....	52
Community and Transit Bus Service.....	52
Temporary Housing after Arrival.....	52
Stillwater.....	52
Emergency and Weather Preparedness.....	53

Appendix C - Alternative Graduate Degree Programs in Ento/Plp 54
Alternate Graduate Degree Programs 54
 Direct BS-to-PhD 54
 Summary of Provisions 54
 Course Requirements for Completion of a Direct BS-to-PhD Plan-of-Study 55
 Dual MS Degree 55
 Master's Degree, Non-Thesis (Three Plans)..... 55
 Plan I: REPORT POS (MS. Entomology or Plant Pathology Option)..... 55
 Plan II: CREATIVE COMPONENT POS (MS. Entomology or Plant Pathology Option) 56
 Plan III: MASTER of AGRICULTURE POS (MAG. Entomology or Plant Pathology Option) 56

Appendix D - Dismissal from Graduate Programs & Appeals Processes 57
Dismissal from Graduate Program and Appeals Process..... 57
 Deadlines..... 57
 Appeals..... 57

Introduction

The sciences of Entomology and Plant Pathology focus on the biology and management of insect and arthropod pests of plants, animals, and humans; and diseases of plants. Careers in Entomology and Plant Pathology range from practitioners who work in pest management for government and private industry to University scientists who conduct basic biological research. Entomology and Plant Pathology are specialized fields of biology that require a strong foundation of knowledge in the basic concepts of biology and chemistry acquired through undergraduate and/or graduate level coursework. Undergraduates or graduate students who have successfully completed coursework in the basic principles of biology including, but not limited to biochemistry, botany, ecology, evolution, genetics, invertebrate zoology, microbiology, and statistics are particularly well-suited for the graduate programs in Entomology and Plant Pathology at Oklahoma State University.

The graduate programs in Entomology and Plant Pathology at Oklahoma State University are research-based degree programs which require the completion of a research thesis or dissertation. In the MS degree, graduate students learn to conduct research in a structured program. PhD students are expected to already have research experience and to develop and demonstrate the ability to conduct independent research. Graduate work is thus more than a continuation of undergraduate studies. Coursework in the graduate programs is designed to support research interests and provide training necessary to become a successful scientist. Graduate students work under a faculty member who serves as their Major Advisor and are usually employed as graduate assistants in research, teaching, and/or extension (outreach). Graduate students contribute a great deal to the research, teaching, and extension missions of the Department and University and are considered valuable members of the Department. This departmental membership assumes a dedication to scholarship as manifested by excellence in coursework, research, and professionalism.

The **Entomology and Plant Pathology Graduate Student Handbook** is intended to provide students with information about graduate degree program requirements in the Department of Entomology and Plant Pathology. Portions of this handbook have been extracted from the Oklahoma State University Catalog and the Graduate College web site. The Oklahoma State University Catalog is the final authority on all matters concerning the academic programs of the University, and is available at <https://registrar.okstate.edu/>. Guidelines regarding enrollment, records, and degree programs are outlined, as well as fees, minimum grade requirements, and requirements for the various graduate degrees. Although periodic changes occur in these requirements, the requirements in force upon your matriculation are those that apply during your program. ***Ultimately, the student is responsible for the completion of all requirements in a timely manner and in accordance with University, Graduate College, and Departmental regulations and requirements.***

Policies, procedures, and guidelines in this handbook pertain to students who started or will start their degree program in summer 2018, fall 2018, or spring 2019. All students should be aware of changes made by the Graduate College that are retroactive.

Departmental History

Oklahoma State University, a state-supported, land-grant University founded in 1890, emphasizes a broad-spectrum and practical education. The University's strong commitment to research is reflected in the Noble Research Center for Agricultural Sciences and Natural Renewable Resources, and the Henry Bellmon Research Center.

The Department of Entomology and Plant Pathology is housed in Noble Research Center with state-of-the-art equipment and laboratories, giving the Department added resources for teaching and research. The department's faculty includes scientists who have achieved national and international recognition. In September 1997, the Department of Entomology merged with the Department of Plant Pathology, becoming the Department of Entomology and Plant Pathology.

Congratulations and welcome to the Department! You are now a member of an academic and professional community of entomologists and plant pathologists. During this phase of your career you will have the opportunity to learn and grow as a professional as you complete the requirements for your graduate degree. The following sections contain important information regarding the requirements for both the Master's and the PhD degree. There is also relevant information regarding departmental and graduate school policies and procedures.

After Admittance

During your graduate program, your goal is to develop the skills and experience to be able to perform as a competent professional entomologist or plant pathologist. As you progress through this process, you will be continually evaluated by the faculty, staff, postdoctoral fellows, and your fellow graduate students. You will also make an impression on scientists you meet and interact with at scientific meetings and conferences. All of these individuals will have a direct or indirect impact on your success in obtaining a position as a professional scientist. It is critical that you take your time as a graduate student seriously and take full advantage of the great opportunity you have been given. Our assistantship stipends are very competitive and can also be supplemented with additional funds when available. Having this financial assistance is a tremendous advantage to students and allows them to concentrate on their coursework and research without having to work outside the University. However, there are also responsibilities associated with the advantages of an assistantship. Funds for assistantships are generated mostly through grants to major professors and are intended to be used to conduct specific research. Funded research may or may not coincide with a student's thesis or dissertation research.

Students serving as Teaching Assistants are expected to work a minimum of 20 hours per week and are assigned to a professor that will determine their work assignments. Thesis and dissertation research is expected to be performed on the student's own time. Performance of students on a teaching (TA) or research (RA) assistantship is evaluated on a regular basis, and poor performance may result in termination of the assistantship. When students are offered assistantships, it is with the understanding that the assistantship will continue for a specified time period, providing the student performs at an acceptable level, which is evaluated annually (see evaluation form, Appendix A, page 39). To be successful, you will need to be diligent and spend many long hours studying, conducting research, and writing. The expectation of the Department is that a student on an assistantship will work a minimum of 20 hours per week under the direction of their major professor, performing all assigned tasks completely and in a timely manner. In most cases, the student will be conducting thesis or dissertation research. However, other tasks may also be assigned that are unrelated to his/her thesis. Students should consult <https://gradcollege.okstate.edu/fall-enrollment> for policies relating to course enrollment.

Graduate students who enroll in research, thesis, or dissertation hours should consult with their Advisor and Committee to determine the number of graduate credit hours in which to enroll. However, it is no longer a mandatory requirement that graduate students who are engaged in research leading to a thesis or dissertation take research graduate credits during every semester they are conducting research.

Such enrollment is "over and above" any minimum number of credit hours of thesis/dissertation/research hours that are required for a degree. Further, it is **not** limited by the maximum number of such hours that can be applied to a graduate degree. The following are some of the expectations of which you need to be aware.

Scientific Literature

An important component of any profession is the published literature. As a developing professional, it is critical that you develop your own strategy to keep up with developments in your area of specialization as well as science in general. With the explosion of scientific literature, this is indeed a daunting task but a very important one. The use of internet resources will allow you to cover much more literature than in the past, so you will need to be selective. Remember, the library is still an essential resource, especially for older materials that may not be online. It is also a great place to browse and explore new areas. Literature can be found using one of the many article databases found at <http://library.okstate.edu/databases/>. You can also access the article databases remotely through EZProxy at

<https://argo.library.okstate.edu/login>. Articles or books not available at the Edmond Low Library are available through Interlibrary Services at <https://illiad-s.library.okstate.edu/illiad/logon.html>. You should read a few journals important to your area on a regular basis. In addition, it is a good practice to read Science and Nature to keep up with the trends in general science.

Professional Courtesy

Students within the Department are expected to exhibit the highest standards of professional ethics and courtesy, and show respect to visitors, peers, staff, and faculty, and to continuously conduct themselves in an honorable manner. To this end, professional conduct when in classes, laboratories, seminars, formal and informal meetings and training sessions, as well as other Departmental or OSU gatherings is essential if communication and progress are to occur, thereby maintaining the excellent reputation of the Department. All electronic communication devices must remain 'off' during classes or other sessions. Exceptions, if any, to these restrictions including use of laptop computers are determined by the responsible professor or instructor in charge.

Seminars

One of the major advantages of studying at a comprehensive research university like OSU is the diversity and outstanding quality of information that is shared and available to students on a regular basis. Hour-long seminars are standard and allow students to hear about cutting edge research from scientists from all over the world. As a graduate student, you should make it a point to keep current on the seminars being presented on campus and attend as many as you can fit into your schedule. This will become a vital component of your graduate education. The Department maintains a listing of seminars on the board outside the main office.

The Department conducts a weekly seminar series on Wednesday afternoons at 3:30. All graduate students are expected to attend. In addition to hearing excellent speakers, attendees also receive important announcements relating to the Department. The departmental seminar is also a great place to interact with and get to know other members of the Department.

Class Attendance

Because graduate students are generally supported on research and/or teaching assistantships, which include both out-of-state tuition waivers and in-state tuition waivers provided by the Graduate College for six or more hours of course work per semester and two hours for summer semester are required.

Holidays and Annual Leave

Graduate students who are funded on assistantships are under contract to the University as half-time employees. They are eligible to take University holidays when the University is closed, including Martin Luther King Day, 4th of July, Memorial Day, Labor Day, and official Thanksgiving and Christmas breaks. However, these students are not eligible for any leave days during Fall Break or Spring Break, or breaks between semesters. Additionally, as half-time employees they are not eligible for annual leave. Graduate students are expected to remain active in their research during summer break as well.

The Department recognizes that graduate students may need to be away from the University for brief, personal situations. In such situations, students on research assistantships may coordinate with their advisor, giving ample advance notice and making any arrangements necessary so that the research is not adversely affected by the student's absence. It is expected that such absences would not exceed ten (10) working days (Monday-Friday) per year. Graduate students must recognize that out-of-class time during breaks and holidays provides an ideal environment to conduct laboratory and field research, and to make significant progress toward completing requirements for their degree. Therefore, with proper planning and preparation their research will progress in a timely manner.

Completing Research, Theses, and Dissertations in a Timely Manner

Because thesis research is performed on each student's own time outside of TA and RA responsibilities, thorough and detailed planning and organization are required to ensure steady progress and completion of research and thesis in a timely manner. During their first semester, each student must develop a Plan-of-Study (POS) in cooperation with his/her major advisor, gather an Advisory Committee, and have a committee meeting. The POS must be approved and signed by the student's Committee, which is done electronically through the Graduate College (GC). The GC then emails it to the Graduate Coordinator for review, validation, signature and return to the Graduate College Dean. The GC is the final approving authority of the initial POS. POSs are subject to revision during the graduate student's tenure. However, these revisions are placed on a 'final' POS that is emailed to the GC at the beginning of the student's final semester. Any intermediate changes to the POS are not sent to the GC, as only the 'final' POS is sent at the beginning of the student's final semester before graduation.

In addition to a POS, all graduate students must develop a written research proposal and provide it to their committee members for review, comment, and revision. The final proposal must be agreed upon and signed by all committee members; any subsequent changes to the proposal require review and approval by committee members. Research thesis or dissertation proposals must be approved at least one full year (12.0 months) prior to the date of graduation, whether a MS or PhD is sought. However, the research proposal must be completed and approved before the end of the first full year of graduate study. Graduate students should review the "Responsibilities for the Master's Degree or Doctoral Program" provided in this Handbook.

Although the Graduate College imposes maximum degree completion time limits of **7.0** years and **9.0** years for MS and PhD programs, respectively, the Department expects students to achieve their degrees within much shorter periods. Ideally, MS programs are completed in 2-3 years and PhD programs in 3-4 years, although it is understood that some programs may exceed these periods. However, TA and RA support may not be available beyond these initial periods, and such support is not assured for even shorter periods as funding may not always be available. For their program to remain viable, graduate students must continuously exhibit consistent, acceptable progress toward degree completion. It is the graduate student's responsibility to ensure this progress, and failure to progress can result in termination of the student's program.

Letters of Recommendation/Reference Letters

Graduate students often ask faculty to provide letters of recommendation for position applications and awards. These requests are facilitated if a student completes a, "Consent/Waiver Form for Student Recommendations/Evaluations," which is available from the Registrar or at <https://registrar.okstate.edu/FERPA-faculty>. A form for a single letter and a form that provides blanket consent for many types of recommendation (e.g., letters, verbal, etc) are available. Once completed, the student should provide this form to the faculty member and to the Main Office for inclusion in their file.

Teaching Experience

All Graduate Students are encouraged to invest at least one semester in a teaching assistantship experience. Depending on Departmental needs, teaching assistantship requirements can continue for two or more semesters. For PhD students and candidates, this is in addition to any teaching activity completed during their previous MS program. The teaching experience may consist of assistance in preparation for lecture or laboratory classes, maintaining attendance and other class records, grading examinations, actual classroom teaching, or other requirements determined by the course instructor. Students are encouraged to enroll in ENTO/PLP 5700 "Teaching Practicum in Entomology (or Plant Pathology)" while serving as a teaching assistant. Having TA responsibilities is a valuable component of graduate student training and imparts important experience to each student. ***Teaching assistantship responsibilities require time outside of classroom and research work, and TA time must be coordinated with classes and research to avoid conflicts.***

Professional Societies and Student Organizations

The **American Phytopathological Society (APS)** is the national society for plant pathologists and related professions. Bacteriology, virology, mycology, nematology, epidemiology, plant disease diagnostics, and extension plant pathology are the main focus areas. Membership in APS is an excellent way to become professionally involved in the field of plant pathology through online journals, forums, APSNet, and the annual meeting, usually held during the first week of August. The annual APS meeting brings scientists together from around the country. There are opportunities for students to present their research and to participate in various scientific communities. The **Southern Division American Phytopathological Society** is our regional branch of the APS. Members meet annually, usually in February.

The **Entomological Society of America (ESA)** is the national society for entomologists and those of related professions. Like APS, ESA meets annually, bringing entomologists together from a variety of disciplines including systematics, physiology, ecology, pest management, urban entomology, medical/veterinary entomology, extension entomology, and molecular biology. The society is organized into four major sections: Systematics, Evolution, and Biodiversity; Physiology, Biochemistry, and Toxicology; Medical, Urban, and Veterinary Entomology; and Plant-Insect Ecosystems. Students are strongly encouraged to participate in the society by attending the national meeting, which is usually held in November. There are many opportunities to participate in the national meeting by presenting original research in the student paper and poster competitions, attending the graduate student mixer, participating in networks, or competing in the Linnaean Games, which is a college bowl-type competition among schools.

Southwestern Branch is our regional branch of the Entomological Society of America. Branch membership meets annually, usually in March.

Entomology and Plant Pathology Graduate Student Association The purpose of the Entomology and Plant Pathology Graduate Student Association (EPP-GSA) is to connect graduate students and post-doctoral staff members in the Department of Entomology and Plant Pathology, to further the professionalism of its members by involving alumni in the organization, to aid its members in establishing a network of professional affiliations, and to increase the knowledge of all members. Undergraduate involvement is encouraged. However, undergraduate students do not have a vote. This is a great way for students, especially international students, to get to know one another and the faculty and staff on an informal basis. There has been good participation by the graduate students and all are encouraged to be involved.

Professional Ethics (RCR training)

Professional ethics, the examination of professional codes and academic integrity, are becoming important topics in many of the scientific fields at many universities. As academic environments and scientific disciplines become more competitive, the number of scientists neglecting their professional ethics and breaching ethical codes is increasing. As scientists, we are working constantly to contribute to the general good. We are looked upon as pillars of societal advancement, which is a responsibility that we should not take lightly.

Oklahoma State University Policy and Procedure 4-0201 [Requirements for Training in the Responsible Conduct of Research (RCR)] mandates that individuals who will be pursuing advanced degrees or engaged in research in any field shall complete **RCR** core training within the first two semesters of their enrollment. For students supported by external funds, or who are enrolled in thesis (5000) or dissertation (6000) courses, the training must be completed within two calendar months of the date of beginning employment, or the start of their first semester. Evidence of course completion will be held in the appropriate department office. The online module is located at <http://compliance.okstate.edu>. A student's Plan-of-Study (POS) will not be approved by the Graduate College unless they have completed **RCR** training.

For more information about Oklahoma State University, Copyrightable Intellectual Property Policies and Procedures, see <https://stw.sp.okstate.edu/policies/Shared%20Documents/Intellectual%20Property.pdf>. For more in-depth

information about academic integrity, professional ethics, professional codes of conduct, and case studies evaluating professional ethics, visit the following web links. Oklahoma State University, Academic Integrity Policies and Procedures: <http://academicintegrity.okstate.edu/>. Oklahoma State University, Ethics Center: <http://philosophy.okstate.edu/ethics-center>. Center for the Study of Ethics in the Professions at Illinois Institute of Technology: <http://ethics.iit.edu>

Title VII and Title XI Training

Title VII and Title XI training relate to sexual harassment and discrimination in the work place. OSU offers on-line modules to take this training, **which is mandatory on an annual basis**. For more information, go to <https://hr.okstate.edu/TitleVIITitleXITraining>.

Plagiarism

Plagiarism is defined by the University of Minnesota Center for Bioethics as “the act of passing off someone else’s ideas, thoughts, pictures, theories, words, or stories as your own.” **Copyright** is the right of a creator of an invention, literary work, or intellectual property, etc., to exclusive use of that work. When plagiarism or violations of copyright are committed, this act is bothersome when performed by any person. However, the act is especially offensive when a research scientist plagiarizes or violates copyright laws. Violation of others’ intellectual property or plagiarism by a research scientist jeopardizes the validity and integrity of the work and the people associated with that work. Plagiarism comes in many forms. It can be intentional in nature, or it can be unintentional as a result of laziness in writing, paraphrasing, or improper citation. If citations are not referenced for paraphrased or word-for-word statements, data, pictures, comments, etc., then an act of plagiarism has been committed. Intentional plagiarism or violation of copyright is not accepted in the scientific community or in the Department of Entomology and Plant Pathology at Oklahoma State University. If intentional plagiarism or violation of intellectual property rights is committed in research work, proposals, or in course work by a graduate student in the Department of Entomology and Plant Pathology, that student will be subject to a Level Three sanction according to University Policy. A Level Three sanction is as follows:

Recommend dismissal from the graduate, professional education, or Veterinary Medicine program and suspension from the University for the following violations:

- Plagiarism or other violations of academic integrity in a thesis or dissertation proposal, qualifying examination, comprehensive examination, thesis or dissertation, report for a creative component, thesis or dissertation defense, or professional education portfolio.
- Fabrication or falsification of research or laboratory data used in a creative component, report, thesis or dissertation.

Computer Usage / Software Licensing

There are no common-use computers available to graduate students. However, computers are available for student use in individual laboratories. Students may use their own personal computers in labs or graduate offices where internet access is available. Computers, whether professional or private, are subject to specific policies governing computer use. Downloading of freeware, free reprints, and public domain documents is permissible. However, the downloading of illegal files such as pirated music, movies, books, and other copyrighted materials is not allowed, even onto a personal computer. Strictly forbidden is the downloading or emailing of pornographic material. Be aware that OSU is a public institution and email can be screened for objectionable content. The penalty for downloading pornography can range from a warning to dismissal from the University. Visit the University IT website for more information about appropriate computer usage. http://it.okstate.edu/policies/pol_app.php.

Safety

Laboratory Safety

All research laboratories have copies of and follow a chemical hygiene plan. You are required to undergo safety training specific to your lab within a month of employment. Documentation of training is to be maintained by lab supervisors and by the Departmental Safety Officer. In addition, safety training is required for all OSU employees four times per year, with a training module taken in each of the four quarters of a calendar year. Consult <http://ehs.okstate.edu/content/safety-training> for online training opportunities. Several opportunities for mandatory or optional training will be provided year round.

Standard rules for laboratory and departmental safety (based on OSHA and USEPA standards):

- 1) The rules and expectations below are held in the highest regard for our Department. This helps aid our Department and labs in keeping you and our environment safe for everyone.
- 2) In the event of intentional misuse of lab material or equipment, you will be reported to the proper personnel and authorities for handling; all accounts are documented.
- 3) Accidents in the lab are going to happen; therefore, you must always be alert, be aware, and learn how your lab and Departmental procedures work. Regardless of the lab you are in, do not make any assumptions, always ask; this will help keep accidents at a minimum.

Some basic, standard laboratory practices (you can be cited for violating the following items):

- 1) No wearing of sandals or open-toed shoes in any laboratory.
- 2) No food or drinks in the labs (This includes but is not limited to medications, hand creams, mouth wash, hard candy, condiments, make up, lip balm or lip gloss, eye drops, etc.).
- 3) No playing or reckless behavior in the NRC.
- 4) Do not use equipment or tools in or outside the labs, unless you are trained by the lab supervisor, your advisor, or a qualified technician recognized by the Department or that specific lab.
- 5) No dumping of environmentally unsafe products down the drain (for example ethidium bromide, methanol, radioactive material, acids, and bases). OSU has a disposal program for these types of products. If you have a question as to an item being dumped down the drain, always ask your advisor or contact EHS.
- 6) Do not work with products that produce unsafe vapor or gas outside of a fume hood. Talk with your advisor or lab supervisor if you are unsure whether the product you are working with should be in the fume hood.
- 7) Wear the proper PPE (Personal Protection Equipment) during experiments or working with or in hazardous elements. Examples of PPE: safety goggles, proper gloves, lab coat, proper shoes, and body shields. Do not wear gloves outside of lab or touch doorknobs of any door in the building while wearing gloves.
- 8) Do not put broken glass or sharp objects (razor blades, syringe needles, etc.) in domestic trash containers. If you need to dispose of such items, each lab has designated containers for that specific item.
- 9) Using lab materials in appliances that are designated for cooking food or refrigerate/freezer, or store food or medicine for human consumption is not allowed. This also includes certain ice machines throughout NRC. These appliances will be marked for human consumption only.
- 10) Walk-in coolers/freezers in NRC are for lab purposes only; food or drink for human consumption is not allowed in these units. Do not store flammable products in these units as they are not explosion proof.
- 11) Combustible items or chemicals that need refrigeration shall only be stored in a non-explosive refrigerator.
- 12) No mouth pipetting.
- 13) Friends, family, and visitors will not be in the labs at any time unless they are a paid employee of OSU and have a designated right to be there by the Department or another OSU entity and/or are studying in your field of work, or recognized by the Department as a visitor or guest.
- 14) Under Federal law (OSHA), all paid employees of OSU must attend **four** safety classes every year.
- 15) If you find yourself in a compromising situation, do not try to handle it yourself; always call for help.
- 16) Pesticide certification: If the student will be working with pesticides, it is advised that the student be certified in the Demonstration and Research category, and any other category that is appropriate. See the Pesticide Coordinator for more information.

Biological Safety

Several of the laboratories in Entomology and Plant Pathology work with restricted pathogens or recombinant DNA. These materials often require additional safety training and certification, termed Biological Safety Level 1, 2, or 3. Specialized training and standard operating procedures (SOPs) are in place for your safety and that of others who may enter the lab or work in close collaboration with your lab. Some of these procedures include safe handling of pathogens, use of personal protection equipment (PPE), proper disposal of contaminated material, and safe research protocols. If you work in a BSL-1 or BSL-2 laboratory, you must be trained and your name must be on the laboratory protocol on file with the Institutional Biosafety Office under the direction of Research Compliance (NIH guidelines) before you begin work in the lab. More information about Biosafety may be obtained at <https://compliance.okstate.edu>.

Working in a BSL-2 or BSL-3 laboratory requires yearly training in SOPs specific to that laboratory or protocol. Lab personnel must wear lab coats and closed-toed shoes upon entry of a BSL-2 or BSL-3 space. Gloves must be worn when working with any regulated pathogens. Any accidents, spills, injuries, or anomalies involving pathogens must be reported to the lab supervisor and logged on the spill/accident log. When leaving a BSL-2 or BSL-3 space, coats and gloves must be removed and hands washed. Only authorized personnel are permitted to enter a BSL-2 or BSL-3 lab space unless accompanied by an authorized person. No food or drink of any kind is permitted. Distribution of regulated pathogens to persons outside of the lab or project is strictly forbidden. Failure to comply or violation of safety protocols may result in serious consequences ranging from loss of laboratory certification to University fines.

Radiation Safety

Radio-isotopes and radiation-producing devices are highly regulated. Oklahoma State University's Radiation Safety Program operates under the supervision of the Oklahoma Department of Environmental Quality (DEQ) that determines the policies and procedures to be used in handling radiation-producing materials. The regulations are administered and enforced by The Radiation Safety Officer operating out of the Radiation Safety Office.

Persons using or planning to use radiological materials must have prior approval from the Radiation Safety Officer and Committee. Generally, the Principle Investigator in charge of the laboratory will request approval to use radio-isotopes or radiation-producing devices. Laboratories where isotopes are to be used are inspected and appropriate warning signs and labeling put in place. All containers of radio-isotopes must be labeled and isotopes must be secured in a locked cabinet or freezer when not in use. All radioactive waste must be stored in a safe location and properly disposed of by university safety personnel. Some isotopes require the use of monitoring devices such as dosimeters that are monitored on a regular basis. Users of isotopes must keep meticulous records and file quarterly reports with the Radiation Safety Office. Isotope purchases must be approved by the Radiation Safety Officer and the disposition of that isotope accurately recorded. Laboratories using radio-isotopes or radiation-producing devices are inspected on a regular basis and their records checked.

Anyone that works with radio-isotopes or radiation-producing devices must undergo Radiation Safety Training and pass a test. General radiation safety training must be taken every two years, and x-ray training annually. Anyone working in a laboratory where isotopes are being used but are not working directly with the isotopes is not required to have had formal training and testing. However, it is the responsibility of the lab director to assure that everyone working in the laboratory is aware of proper radiation safety procedures.

It should be stressed that radio-isotopes can only be used by approved, trained individuals working in laboratory areas approved for isotope use. Do not under any circumstances bring your materials/organisms into an approved laboratory and use their isotopes to conduct an experiment unless you have obtained approval from the Radiation Safety Officer. Likewise, do not move isotopes from an approved laboratory and use them in an area not approved by the Radiation Safety Officer. Failure to follow these rules will result in severe penalties for you and your major professor, the Department, the Division, and the University. More information regarding radiation safety can be found at <https://compliance.okstate.edu/>.

Institutional Review Board (IRB)

All research involving human subjects must have prior approval by the University's Institutional Review Board (IRB). This approval protects both the human subjects and the investigator(s). The IRB forms and format and more information are available on the web at <http://irb.okstate.edu/>. Information on the IRB may be obtained by calling (405) 744-3377.

Permits

The USDA Animal & Plant Health Inspection Service (APHIS) requires that live insects and pathogens that originate outside of Oklahoma be obtained and maintained under a PPQ (Plant Protection and Quarantine) permit. The process of obtaining permits can be lengthy and if a student intends to colonize or culture outside organisms, it is best to obtain the necessary permits as soon as possible. This is usually done by the academic advisor. It is illegal for anyone to request, collect, or purchase organisms outside of Oklahoma without the possession of a permit. It is illegal for anyone to mail or transport organisms outside of Oklahoma without the possession of a permit.

Motor Pool

As a graduate student in the Department of Entomology and Plant Pathology, you are entitled to obtaining transportation from the Oklahoma State University Transportation Services Motor Pool for official University business purposes. In order to take advantage of this privilege, students must abide by several rules and procedures. While some procedures and important policies are highlighted here, students should be familiar with all Oklahoma State University Motor Pool Policies and Procedures, which are found at the following link.

<https://parking.okstate.edu/transport-services-faq>

If transportation for research purposes or other official University business is deemed necessary by a student's advisor, then the student must use the following procedures for obtaining a vehicle from University Motor Pool after obtaining written permission from the major advisor:

1. Requests for advance reservations of Transportation Services' vehicles are urged. Phone-in reservations may be made by calling Extension 4-7945. Failure to cancel reservations before the reserved time of departure will result in half-day charges being billed to the respective Department. Reservations not canceled by 1:00 p.m. will result in full-day charges being billed to the respective Department. All cancellations must be submitted by e-mail or phone and will be acknowledged by same.
2. At the time of leasing, the University personnel taking a vehicle must complete and sign a trip ticket. The person checking out the vehicle must be prepared to show a University identification card, temporary authorization card, or Departmental authorization memo, plus **a current and valid state driver's license** and the account number to be billed. Students will need to see Pam Thomas in the front office to receive an orange authorization card. The card must be kept in your possession along with your driver's license when operating a University vehicle.
3. At the termination of travel, the vehicle, credit card, and vehicle key should be returned to a member of the Transportation Services leasing staff during normal operating hours. A vehicle check-in unit with detailed instructions is provided for after-hours returns. The campus vendor invoice will be based on cost according to the type of rental, rental period, and miles traveled. A copy of the campus vendor invoice with all charges listed will be transmitted by mail to the user Department. Each driver is expected to inspect the vehicle for damage when picking up and upon return to the Transportation Services' facility and discuss any damage with a Transportation Services employee. **In the case of vehicle damage resulting from the driver's gross negligence, competitive bids are used to assess the cost of repair. The user Department will be charged the full amount of the total of the charges to repair the vehicle. The project associated with the vehicle rental will, in turn, be charged accordingly.**

The following are important rules to remember when in possession of and operating ANY University vehicle:

1. Private use of any University-owned vehicle is prohibited by State Statute (O.S. 1981, Title 47, Section 159.7). All University-owned vehicles shall be used strictly for official business. The following guidelines shall be used in determining whether vehicle usage fits the official usage requirement:
 - a. Travel directly incidental to the performance of official business, provided that the vehicle is not diverted from a reasonable and prudent route to or from its intended official purpose;
 - b. Transportation between temporary lodging and temporary duty station;
 - c. Transportation while in travel status between the temporary duty location or temporary residence and place where meals are taken, drug stores, barber shops, churches, laundries, cleaning establishments, and other similar places required for the health and well-being of the traveler.
2. The term "official" use or purpose does not include the use of a University-owned or leased vehicle or commercial rental vehicle for personal entertainment, the visiting of friends or relatives, or loan to or use by guests of the University. All persons traveling in University-owned vehicles must be on official business at all times.
3. A Transportation Services vehicle is to be checked out by a regular full-time state or federal employee. The employee who checks out a University vehicle is responsible for the safe operation and care of the vehicle while in that individual's custody. The employee is also personally responsible for citations received while operating the vehicle.
4. If the vehicle is operated by anyone other than the employee who checked out the vehicle, the employee shall be responsible for the approval of capable and competent drivers. All drivers must have in their possession a current and valid state motor vehicle driver's license with no restrictions other than for corrective lenses.
5. While any University vehicle is in the Stillwater area, purchases of fuel, services, and other automotive supplies must be made from Transportation Services.
6. Tobacco use is prohibited in all Transportation Services vehicles. The Department may be charged a cleaning fee to remove tobacco odors or stains.

Departmental Vehicle

There is a state car that is available for local use by departmental personnel. This sedan has a permanent parking space located towards the west side of the parking lot on the north side of the Noble Research Center. The key is kept in the main office. The purpose of this vehicle is for local uses such as transporting students to field plots/greenhouses in Stillwater, picking up supplies from local vendors, etc. The car can be reserved for a time in the future by signing on the whiteboard located in the main office. Whenever the car is used, be sure to sign on this whiteboard who has the car and for how long. An Oklahoma State driver's license is required to operate this vehicle. If a graduate student, the permission card to operate State vehicles also is required. ALSO – be sure to fill the gas tank once the tank reaches half empty. Please see Pam Thomas in the main office if you have additional questions.

Travel

Out-of-State Travel (Flying or Driving)

1. Submit Request (**NOTE: At least one month is needed to process!**) by completing the Out-of-State Travel Request Form. Funding may or may not be available for all meetings and all expenses. Consult with your advisor before making plans to attend a meeting.
2. Obtain Approval / Authorization. **You must first receive approval** before any travel arrangements are made.
3. Make Necessary Travel Arrangements
All Out-of-State Travel Requests and Airline Requisitions must be submitted in advance of the trip, at least one month in advance, if possible. Out-of-Country travel needs to be submitted several months in advance.

Register for Conference or Meeting

After **first** receiving approval to attend, you can register and pay for the conference or meeting in one of four ways:

1. Advisor's P-card: Three criteria must be met by the conference representatives to use the P-card
2. Purchase order
3. Direct billing
4. Self-payment

Arrange Transportation ("Concur" system)

Airline ticket purchases for Out-of-State Travel submission only. Commercial airline tickets for out-of-state travel must be purchased using the 'Concur' system, which can be reached at <https://www.concursolutions.com> or at 855-763-9257. However, use of the web site is recommended.

Air travel services exceptions may include:

- Ticket can be secured elsewhere at a cost less than the lowest Concur quote
- Travel is necessitated by an emergency and time does not permit utilization of Concur. **HOWEVER**, try to resolve through Concur before using a different agency
- Travel is part of a package arrangement made by the organization scheduling the meeting or conference

Direct Purchase of Airfare and Baggage Fees with the P-card

- An Out-of-State Travel Request must be completed and approved prior to the purchase of airfare.
- The P-card may be used to purchase airfare.
- Baggage fees can be charged at the time of purchase or at the airport — not to exceed the approved number of baggage per travel rules. This is almost always one (1) bag only. Additional bags are paid for by the traveler. No overweight or extra baggage is permitted, unless paid for by personal funds (can be paid for with a P-card).
- Required documentation includes the Out-of-State Travel Request and receipt provided to the main office.
- The receipt must include the vendor's name, date, total cost of ticket, flight class accommodation, and name of the traveler.
- This documentation may be printed and attached to the cardholder's Monthly-Memo Statement, or attached to the travel documentation in the AIRS system. The cardholder must include the trip number in the description field on the 'Works' system so the documentation may be identified by the Fiscal and Administrative Compliance office.

Other Forms of Transportation

If you decide to drive a car to your destination you may drive your own car in the state of Oklahoma. If you drive your own car outside of Oklahoma you will not be reimbursed for full mileage. It is better to rent a car from the OSU Transportation Services Motor Pool. To do this, you must receive permission from your advisor. You may drive your own car to the airport and receive mileage for the trip to and from the airport as well as the cost of the parking fee.

Mileage eligible for reimbursement for a privately owned vehicle: For purposes of computing mileage eligible for reimbursement, the individual's office is the starting point, except when the individual is leaving from his/her home and where his/her home is closer to the destination than his/her office. The best way to do this is to provide MapQuest mileages that can be used for reimbursement; or, provide addresses to the main office so exact mileage can be determined.

Parking: Actual expenses for parking may be reimbursed in full by providing receipts (can use P-card).

Taxi: Taxicab fares may be reimbursed for out-of-state travel on the basis of necessity. A receipt is highly desired – try to get one if at all possible! (**NOTE: no taxi or uber can be reimbursed for in-state travel!**).

Bus or Train: Travel by bus will be reimbursed at a rate not to exceed the normal charge of such conveyance, and in no instances will the rate exceed coach class airfare.

Turnpike Tolls: Actual cost for turnpike tolls may be reimbursed in full.

Reserve a Hotel Room

Call the designated conference hotel or site and ask what form of payment they accept. Most hotels will expect a credit card number to reserve the room and will not allow for direct billing or purchase orders. The most frequent method is for the traveler to use his/her own credit or P-card to reserve and pay for the room and then submit their receipts for reimbursement after the trip. Please see the submission reimbursement guidelines for details.

Designated Conference Hotel or Location

While in official travel status, attending a previously arranged meeting, workshop, or such similar event, and conducted at the designated location as evidenced by the sponsor's announcement or notice, will qualify for actual lodging expense reimbursement not to exceed the single occupancy room rate charged by the designated hotel, motel, or other public lodging place. Students choosing to acquire less expensive lodging at another hotel, motel, or other public lodging place may be reimbursed the actual lodging expense not to exceed the single occupancy room rate charged by the designated hotel, motel, or public lodging place. Under these circumstances, you will not be reimbursed for local transportation costs incurred while traveling between the chosen lodging site and the designated hotel site unless an overall cost savings is demonstrated. When the itinerary does not specify a designated hotel, a hotel needs to be designated by the Department before the trip is taken. A designated hotel form needs to be signed and dated before the trip. A hotel can only pre-charge a traveler for one night if you are using a P-card for travel. Be sure this is understood by the reservation representative handling your stay.

Cost Comparisons

Regardless of mode of travel, reimbursement for out-of-state transportation costs cannot exceed that of the lowest airfare quote from Concur plus mileage to and from the airport. If you choose another mode of travel other than by air, you must provide a cost comparison (i.e., the quote from Concur) between the actual cost of transportation and the cost of the airline ticket (had you flown to the destination).

Meals

Meals included in registration: One fourth of one day's meals will be deducted from the per diem.

Continental breakfasts: Continental breakfast and refreshments such as coffee, tea, soft drinks, etc., provided during meeting breaks are not considered meals for the purposes of deducting meals provided with registration. Other

meals: you will receive a per diem limited reimbursement amount on meals that are not provided by the conference.

Take Your Trip, and When You Return

1. Complete Travel Voucher Form.
2. Submit Worksheet with the following receipts and itineraries/schedules for reimbursement.
3. Give original receipts with **zero balances** and conference itineraries/schedules to the Travel Coordinator. These may include:
 - Airline ticket & quote from Concur. If you don't use Concur, you need the lowest quote from Concur.
 - Conference itinerary/schedule.
 - Designated hotel verification (if not a designated hotel, the rate must be at the approved state rate).

- Itemized hotel bill (single room rate). **The bill must have your name on the bill even if you shared the room and show a zero balance.**
- Paid registration fee.
- Miscellaneous supplies and costs (with purpose stated).
- Business phone calls (usually shown on hotel bill) If you used a p-card to pay hotel room all other hotel charges must be on a separate bill.
- Parking and tolls.
- Any other pertinent receipts.
- Leased or rented automobiles, taxi.
- Internet use (as long as it has to do with work).
- Registration fees.

Travel Reimbursement Voucher

The Travel Coordinator will prepare the travel reimbursement voucher for you to approve through an e-mail. The travel voucher will be delivered to University Accounting to be processed for reimbursement.

In-State Travel Reimbursement

No travel request is needed for in-state travel.

No taxes can be paid if using a P-card to pay for an in-state hotel.

Maximum reimbursement is the approved state rate. Occasionally a hotel will have their own "state" rate, but only the approved rate will be reimbursed. The approved state rate can be found by asking in the EPP main office or at: www.gsa.gov

Register for Conference or Meeting - If applicable (See above).

Arrange Transportation (See above).

Reserve a Hotel Room - If applicable (See above).

Complete the Trip

Complete a Reimbursement Form

Submit Worksheet: Submit the worksheet with receipts and itineraries / schedules for reimbursement. See above.

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Master's Degree Program

The Master of Science degree program allows students to gain greater knowledge in one of two areas (Entomology or Plant Pathology). Through the process of earning a Master's degree, you will learn how to conduct in-depth research and effectively communicate those findings through both verbal presentations and scientific writing. You should consider the Master's program to not only be an academic endeavor that is preparing you for your future plans but also a professional occupation.

The Department offers a Master of Science degree in Entomology and Plant Pathology with an option in Entomology or Plant Pathology. In addition, there are three non-thesis Master's degree programs (Appendix C, page 56).

Entrance Requirements for Graduate Programs

The following courses should have been completed prior to acceptance into graduate programs in the Department of Entomology and Plant Pathology. A student may be admitted with deficiencies in these areas, but should take the courses, and depending on the course, may not receive credit toward their degree requirements. The courses required will be based on recommendation of their Advisory Committee.

A. For the MS Entomology Option

Introduction to the Science of Entomology, ENTO 2993 or equivalent

B. For the MS Plant Pathology Option

Introductory Plant Pathology (such as PLP 3343) or PLP 5343

The following undergraduate courses are suggested for those students who are interested in graduate study in entomology or plant pathology.

1. Chemistry with laboratory (*three semesters, including at least one semester of Organic Chemistry*)
2. Introductory Biological Science with Lab (e.g., *Principles of Biology, Plant Biology, Microbiology, Zoology*)
3. Physiology with laboratory
4. A Plant Anatomy or Plant Taxonomy course
5. Genetics
6. Statistics, Algebra, and College Calculus
7. Physics
8. Entomology
9. Botany

Note. The prerogative of the student's Advisory Committee to waive specific curriculum requirements for good cause does not apply to **Introductory Plant Pathology or Introduction to the Science of Entomology**. If either course has not been taken prior to admission, it must be taken during the student's graduate program at OSU.

Master's Graduate Study Guidelines

It is the **student's responsibility** to know all relevant University deadline dates and to have a general understanding of the rules of the Graduate College as they relate to the student's program. A listing of deadlines for each academic year can be obtained from the Graduate College at <http://gradcollege.okstate.edu/>.

Expectations for Degree Requirements and Deadlines

There are Departmental deadlines in place for timely completion of your degree. Professionals operate under the pressure of deadlines, and the same expectations are true of this Department and the Graduate College. Important

Departmental deadlines are specified throughout this document. It is **your** responsibility to adhere to them. These include holding committee meetings, submitting committee report forms, and completing research proposals.

It is for your benefit that these policies and deadlines are in place so that you can complete your degree and enter the workforce prepared and competitive. Failure to adhere to these deadlines may result in action that will result in the suspension of your assistantship until the requirement(s) is completed.

Selection of Advisory Committee

As early as possible during the first semester of enrollment, each student should consult with their Major Advisor regarding the formation of an advisory research committee. This Advisory Committee must include a minimum of three (3) members consisting of:

- The Major Advisor (a tenured or tenure-track OSU faculty member, or a professional person associated with OSU as a clinical, research or adjunct faculty with full membership on the Graduate Faculty).
- A tenured or tenure-track OSU faculty member, or a professional person associated with OSU as a clinical, research or adjunct faculty with full or associate membership on the Graduate Faculty. This person is to be housed in the within the Department of Entomology and Plant Pathology.
- A tenured or tenure-track OSU faculty member, or a professional person associated with OSU as a clinical, research or adjunct faculty with full or associate membership in the Graduate Faculty. This person may either be housed in the within the Department of Entomology and Plant Pathology or in another department.
- A fourth member if deemed necessary by the advisor and committee with qualifications as described in the bullet immediately above this one.

The Advisory Committee will make recommendations regarding the student's Plan-of-Study (POS) and will supervise and review his or her research projects. Members of the Advisory Committee will assist the student with selection of courses and successful completion of their research.

The Head of the Department of Entomology and Plant Pathology is considered a non-voting ex-officio member of all Advisory Committees, and must be notified one week prior to all meetings and examinations.

The student and Major Advisor select the Advisory Committee. Committees must be formed by the end of the first regular semester in which the student is enrolled at OSU. Once potential members are identified, it is the responsibility of the student to visit and ask each individual to serve on their committee. This will help establish rapport between the student and committee members. Names of committee members must be provided to the Graduate College.

A committee meeting should be scheduled as soon as possible after the selection and approval of committee members. This meeting is for purposes of preparing the Plan-of-Study and approval of the basic concept of the student's research. ***It will be held before the end of the first semester (spring or fall).*** After this meeting the student should submit a signed Thesis / Dissertation Committee Meeting Report form (Appendix A, page 39) without a research summary. A copy of this report should be sent to each committee member and submitted to the Department Head. In addition, a student will not be allowed to further enroll in courses unless an approved Plan-of-Study is on file with the Graduate College before the student has completed their 2nd regular semester (summer sessions excluded).

The Advisory Committee will meet at no less than six-month intervals throughout the student's program.

The purpose of these meetings is to monitor progress on research and course work. One week before each Committee meeting, the student should provide to committee members a written one-page summary of his/her research progress since the last meeting. At the completion of all meetings, the student completes and has signed by their committee members, a Thesis/Dissertation Committee Meeting Report form (Appendix A, page 39). A copy is provided to each committee member and to the main office for placement in the student's file.

Master's Degree Plan of Study (POS)

Before the end of the 2nd regular semester (summer sessions excluded) of graduate enrollment, each master's student **must** submit an initial Plan-of-Study to the Graduate College. Plan-of-Study forms are available online at <https://gradcollege.okstate.edu/planofstudy>, and are submitted electronically. You must use your OSU graduate student email address and password to log onto the POS address. Note that Graduate College requirements specify a minimum of 21 hours of 5000 level (or above) courses for a Master's degree Plan-of-Study. Exactly **six** graduate credits ENTO or PLP 5000 hours must be on the POS regardless of total ENTO/PLP 5000 credit hours completed. ENTO/PLP 5000 credit hours in excess of six will still appear on official transcripts. Any change in the Plan-of-Study must receive prior approval by all members of the student's committee. In addition, students should consult closely with their Advisory Committees on all phases of their research projects. Once the initial Plan-of-Study (POS) form is completed, it is electronically submitted to the Graduate College (GC) by the student. The GC electronically sends it to the Committee members and the Graduate Coordinator for approval and signature; however, the GC gives the final approval. Any revisions or changes made after submitting the initial POS should be accurately listed on a "Final" POS that is electronically submitted by the student to the Graduate College during the first two weeks of the **final** semester of graduation. Intermediate POSs with revisions are not submitted to the Graduate College. A Master's degree POS requires a minimum of 30-32 graduate credit hours (exception: MAG non-thesis POSs may list up to 36 graduate credit hours depending on the option chosen (Appendix C, page 56).

Basic requirements to be completed by ALL Master's degree students

Core requirements: 9 credit hours plus 6 credit hours of Research and Thesis (ENTO), or Research (PLP)

ENTO/PLP 5870	2 hours: Scientific Presentations (both fall and spring semesters - 1 credit hour each)
ENTO/PLP 5623	3 hours: Advanced Biotechnology Methods
ENTO/PLP 5524	4 hours: Integrated Management of Insect Pests and Pathogens
ENTO/PLP 5000	6 hours: ENTO 5000 ("Master's Research and Thesis"), or PLP 5000 ("Research")

Exactly 6 graduate credit hours **total must** be listed on the POS (more than 6 credit hours completed will appear on final transcripts, not on the POS)

Discipline requirements: 15 credit hours

Entomology: 15 credit hours

Core – select at least 2 courses from the following

ENTO 5464	4 hours: Insect Biol. and Classification (Not required if ENTO 4464 previously completed)
ENTO 5003	3 hours: Insect Biochemistry
ENTO 5044	4 hours: Insect Physiology (Not required if ENTO 3044 previously completed)

Plus additional courses to complete the graduate program and POS

Plant Pathology: 15 credit hours

PLP 5343	3 hours: Principles of Plant Pathology (required if student has NOT completed an Introductory PLP course)
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Core – select at least 2 courses from the following

PLP 5003	3 hours: Plant Nematology
PLP 5014	4 hours: Plant Virology Lecture and Lab*
PLP 5104	4 hours: Mycology
PLP 5304	4 hours: Phytobacteriology

Plus additional courses to complete the graduate program POS

Introductory Seminar

At the beginning of their second semester (fall or spring; not summer), every MS student is required to present a short seminar as part of the Departmental Seminar Series. The purpose of this 15-20 minute presentation is to introduce the student to Departmental personnel and to give a brief overview of the research the student will be conducting during their degree program. The presentation should include brief background information to help us get to know you, including where you are from, what your home town or country is like, any prior education, hobbies, and interests, etc. You should also include what degree you are working toward and who is your Major Advisor. Then give a brief overview of your research area and the approaches you will be using. You do not need to give every specific detail, but provide enough information so the audience understands what you will be doing and can provide general suggestions about your research. It should be noted that this is not a proposal defense seminar.

Near the end of your first semester (spring or fall) contact the seminar coordinators for the next semester to schedule a date for your presentation. The coordinators for the next few years are listed below. You should work with your Major Advisor on the preparation of your presentation. Contact the seminar coordinators for the semester you will be presenting if you have specific questions.

Seminar Coordinators:

2018	fall	Drs. Ochoa Corona and Talley
2019	spring	Drs. Walker and Noden
2019	fall	Drs. Wayadande and Kard
2020	spring	Drs. Cardwell and Royer
2020	fall	Drs. Garzon and Rebek
2021	spring	Drs. Marek and Giles
2021	fall	Drs. Jiang and TBD

Research Proposal

A written research proposal is a required prerequisite for all graduate programs requiring a thesis (MS) or dissertation (PhD). The Advisory Committee must approve the research proposal. The proposal must be submitted to all Advisory Committee members 10-14 days prior to the student's second committee meeting. This second committee meeting must take place before the end of the student's first year in the program. The research proposal is designed to help the student prepare for conducting research by familiarizing him/her with the relevant literature, scientific writing, and planning experiments (experimental design). A well-written proposal not only functions as a template for you and your committee, but can also be used as the foundation of your thesis or dissertation. The research proposal must be in scientific format with proper references. There are no strict rules as to what goes into a research proposal, but here are some guidelines:

1. Title Page
2. Overview and objectives
3. Literature review
4. Experimental plan/methodology (description of how you will conduct your research to meet your objectives)
5. Results to Date (if any)
6. Literature Cited

Research proposals are first reviewed by the Major Advisor and then sent to the committee members for review and approval.

Research involving human subjects, biological, or hazardous materials must be approved by OSU institutional review committees/boards. Please refer to the introductory portion of this handbook (pages 12-14). It is the student's responsibility to work with the Major Advisor to make sure appropriate approvals are obtained before work begins. Failure to do so will result in serious consequences for the student, advisor, and the University.

Annual Review of Graduate Student Progress

All graduate students are reviewed annually to ensure progress toward completion of their degree. The information required for this annual review is available on the Ento/Plp Annual Review of Graduate Students form (Appendix A, page 38). Some of the information is provided by the Advisor, but most is to be provided by the student. Completion of this form is a requirement and is to be submitted to the Graduate Coordinator in early to mid-July of each year.

Research

It is the student's responsibility to keep all members of their Advisory Committee informed of the research progress (including copies of manuscript drafts for review). Adequate time must be allowed for committee review of the research materials in advance of the Graduate College deadlines. Communication with Advisory Committee members is critical to the successful coordination of graduate activities.

It is the student's responsibility to make satisfactory progress with their research. A student will receive a grade of "SR" (for satisfactory research) or "UR" (for unsatisfactory research). These grades are given in real time and are permanent. Unsatisfactory research grades do not count towards degree requirements and must be repeated and satisfactorily completed. If a student receives a grade of UR two semesters in a row, they lose their research or teaching assistantship.

Master's Degree Thesis

Important Graduation Dates, Deadlines, and Forms

All students should visit the Graduate College website to review the numerous forms and deadlines they are responsible for in order to graduate at <http://gradcollege.okstate.edu/masters-checklist>. Students wishing to graduate must submit a graduation clearance form, signed by their advisor, in their last semester. This form guides students through the process of verifying that degree requirements will be met. An extremely important step in this process is checking that courses listed on the Plan-of-Study have been taken and that the course prefix and number match those on the transcript **exactly**. The Committee-approved POS form must be received by the Graduate College before a graduate student can apply for a diploma application with the Registrar's Office.

Application for Diploma

Application for a diploma must be made at the time of enrollment for the semester in which the degree is conferred (http://registrar.okstate.edu/index.php?option=com_content&view=article&id=45&Itemid=18). Failure to file an application for a diploma card means you cannot graduate in that semester. In addition, the student must confirm that the Plan-of-Study is up-to-date. If the student does not graduate in the planned semester, they must resubmit the application for diploma.

Final Semester Graduate College Forms

International students must complete a final semester verification form available from the Office of International Students and Scholars (<http://iss.okstate.edu>). International graduate students must complete this form even if not subsequently applying for Optional Practical Training (OPT) which would allow them to enroll for less than 6 graduate credit hours during their final semester. Domestic students must complete a final semester verification form available from the Graduate College (<http://gradcollege.okstate.edu/>). All students must submit a graduation clearance form for graduate students also available at the Graduate College (<http://gradcollege.okstate.edu>)

Thesis Format

Electronic submission of the final MS theses to the Graduate College is required. The student must follow the format guidelines in the Thesis/Dissertation Handbook that can be downloaded at <https://gradcollege.okstate.edu/tdg>. The Department of Entomology and Plant Pathology generally allows students to use one of two thesis formats. Refer to the Graduate College guidelines at <https://gradcollege.okstate.edu/content/thesis-and-dissertation-templates>. One is the traditional format and the second is a format that involves a collection of manuscripts in

refereed scientific journal form. The student should work with the Major Advisor and members of the Advisory Committee to determine the most appropriate format.

Master's Degree Final Examination

All students completing their MS are required to give a 40-50 minute public seminar presenting their research project and results. It is usually scheduled immediately preceding the Final Exam.

A final oral examination is conducted based on the draft copy of the thesis so that changes suggested by the student's Advisory Committee may be incorporated into the final copy. Scheduling should be done as far as possible in advance of the oral examination date. Students are required to submit draft copies of their thesis to all members of their committee at least 2 weeks prior to the oral defense.

The examination is conducted by the Advisory Committee and may include other Faculty. The content of the examination includes all course work, research, and research-related material covered during the student's tenure in the Department. Passing the exam requires a majority committee vote, with the Major Advisor voting with the majority. If the student fails the exam, a second exam cannot be scheduled for at least two months after the failure. Failure to pass the second exam will result in dismissal from their program. Following the oral examination, the student immediately submits the Result of Final Examination Form to the Graduate College.

Final Copy of Thesis

After successful defense of the thesis, the student prepares a final version incorporating any changes required by the Major Advisor and Advisory Committee. The final copy in electronic version is submitted to the Graduate College and the Department Head. The Department will print and bind a copy of the thesis that will reside in the Department office. Refer to the Graduate College for specific information regarding requirements and format for the thesis, which can be found at: <http://gradcollege.okstate.edu/tdg>.

Completion

Submit a final copy of the thesis in electronic format to the Graduate College and to the Department Head. You can obtain bound copies of your thesis for yourself and your committee by purchasing the paper and/or using one of the local printing companies in town. The Departmental copier should not be used to duplicate your thesis. Several binding companies are located within Oklahoma that can bind your document. Purchase or rental of a cap, gown, and hood can be done at the Student Union Bookstore.

Congratulations

Please keep the Department up-to-date on your address along with professional and personal news to share.

Tips

A checklist is provided for your convenience below. Students generally underestimate the time involved in satisfying the Graduate College regulations, and obtaining copies and signatures. Plan ahead and be prepared.

Responsibilities for the Master's Degree

Department Head

1. Monitor graduate program.
2. Provide guidance to graduate students and graduate faculty.
3. Enforce rules, policies, and timelines outlined in this handbook.

Major Advisor

1. Review program possibilities with student.
2. Assist student in organizing an Advisory Committee and direct Advisory Committee meetings.
3. Assist the student in developing the Plan-of-Study.
4. Work with the student to develop a research proposal.
5. Provide research guidance and advice.
6. Meet regularly with student to provide guidance on research and thesis writing.

Committee

1. Make suggestions, review, approve, and sign the Plan-of-Study.
2. Approve thesis proposal and review research for compliance (i.e., animal, human, hazard, DNA) and Institutional Review Board (IRB) requirements.
3. Assist student during research as requested by advisor and student.
4. Review and approve draft copy of thesis.
5. Participate in student's oral examination; approve and sign final copy of thesis.

Student

- 1) Read thoroughly:
 - a. Graduate College policies and procedures, and the Departmental Graduate Student Handbook.
 - b. Adhere to all departmental and university policies and procedures including safety training, RCR training, and Title VII and Title XI training.
- 2) With the assistance of your advisor:
 - a. Develop Plan-of-Study and file with Graduate College by the end of the second regular semester (excludes summer semester).
 - b. Plan each semester's enrollment.
 - c. Establish research project with a research proposal approved by committee.
 - d. Organize Advisory Committee.
 - e. Plan Advisory Committee meetings and submit committee tracking forms.
 - f. Obtain IRB approval of research proposal, if required.
- 3) When enrolling for the semester in which the degree will be conferred, recheck that the Plan-of-Study matches with the transcript. When enrolling for the semester in which the degree will be conferred see <http://gradcollege.okstate.edu/masters-checklist>
- 4) Meet Graduate College deadline dates in the current catalog regarding:
 - a. Plan-of-Study.
 - b. Draft copy of thesis.
 - c. Oral examination.
 - d. Final copy of thesis.
 - e. Complete application of degree.
- 5) File copy of your thesis with the Departmental Office.
- 6) Exit interview with Department Head.

Master's Degree Graduate Student Checklist

Student's Name _____

Program Start Date _____

- ____ 1. Discussion of professional goals and objectives, and academic plans with Advisor and Committee
- ____ 2. Review Graduate Student Handbook and Graduate Catalog.
- ____ 3. Determine courses for first semester.
- ____ 4. Become acquainted with research project.
- ____ 5. Complete Responsible Conduct of Research (**RCR**) requirements and notify Graduate Program Office.
- ____ 6. Read the Gender Discrimination-Sexual Harassment and Title IX Grievance Procedure Policy & take the training/exam annually. (OSU Policy and Procedure 1-0702. Mandatory).
- ____ 7. Develop a draft Plan-of-Study (**POS**). **No later than (NLT) end of 1st semester**
- ____ 8. Organize a Graduate Advisory Committee. **NLT end of 1st semester**
- ____ 9. Present Plan-of-Study to Graduate Advisory Committee. **NLT end of 1st semester**
- ____ 10. Finalize a Plan-of-Study and submit it to the Graduate College (**NLT end of 2nd regular semester**).
- ____ 11. Select a thesis problem. **NLT end of 1st semester**
- ____ 12. Develop a thesis proposal. **NLT end of 1st semester**
- ____ 13. Present a thesis proposal to Graduate Advisory Committee within first 12 months of your program.
- ____ 14. Present introductory Seminar to the Department. **NLT end of the second semester.**
- ____ 15. Amend the Plan-of-Study as necessary. Submit "**final**" POS to the GC within two weeks of the start of your graduation semester – only **IF** changes have been made to the initial POS.
- ____ 16. Submit Graduate Clearance Form to the Graduate College (<http://gradcollege.okstate.edu/>).
- ____ 17. Submit on-line Diploma Application early in the semester in which your degree will be conferred.
- ____ 18. Attend Thesis/Dissertation Review Workshop.
- ____ 19. Complete thesis and abstract.
- ____ 20. Conduct Thesis Defense.
- ____ 21. Pass final defense examination and submit results to the Graduate College ("Thesis/Dissertation Oral Defense Results" form).
- ____ 22. Complete required revisions to thesis. Obtain a fully signed original Thesis Signature Approval Page.
- ____ 23. Complete on-line submission of thesis to the Graduate College. Also, submit a signed paper copy of the thesis Signature Approval Page to the GC in 202 Whitehurst. Write your CWID at the top of this Page.
- ____ 24. Submit an electronic copy of thesis to Department Head.
- ____ 25. Complete all planned coursework or research credit hours.
- ____ 26. Submit "Graduation Clearance for Graduate Students" form to Grad College by deadline date (pg. 47).
- ____ 27. Conduct Exit Interview with Department Head.
- ____ 28. Rent or buy Cap, Gown, and Hood at Student Union Bookstore. Attend your Commencement Ceremony.

Doctor of Philosophy

Entrance Requirements for Graduate Programs

A Master's degree with a research thesis is required. In addition to courses typically taken for the Master's degree, the following courses should have been taken prior to acceptance into Doctorate of Philosophy programs in the Department of Entomology and Plant Pathology. A student may be admitted with deficiencies in these areas, but should take these courses and depending on the course may not receive credit toward their degree requirements. The courses required will be based on recommendation of their Advisory Committee.

1. Biochemistry
2. Ecology
3. Genetics
4. Basic statistics/Experimental design

General Requirements

The Doctor of Philosophy degree is granted in recognition of high achievement in scholarship and independent investigation. The candidate must prove his/her acceptability by:

- Successfully completing a series of courses comprising a Plan-of-Study;
- Passing a written and oral examination demonstrating academic competence;
- Carrying out a research program under supervision and preparing an acceptable dissertation; and,
- Demonstrating initiative, creative intelligence, and ability to plan and carry out research in the chosen field.

Doctorate Graduate Study Guidelines

It is the **student's** responsibility to know all relevant University deadline dates and to have a general understanding of the rules of the Graduate College as they relate to the student's program. A listing of deadlines for each academic year can be obtained from the Graduate College at <http://gradcollege.okstate.edu/>.

Expectations for Degree Requirements and Deadlines

There are Departmental deadlines in place for timely completion of your degree. Professionals operate under the pressure of deadlines and the same expectations are true of this Department and the Graduate College. Important Departmental deadlines are specified throughout this document and it is **your** responsibility to adhere to them. These deadlines include holding committee meetings, submission of committee report forms and research proposals. It is for your benefit that these policies and deadlines are in place so that you can complete your degree and enter the workforce prepared and competitive. Failure to adhere to these deadlines may result in the suspension of your assistantship until the requirement(s) is completed.

Selection of Advisory Committee

As early as possible during the first semester of enrollment, the student should consult with their Advisor regarding the formation of an advisory research committee. This Advisory Committee must include a minimum of four (4) members consisting of:

- The Major Advisor (a tenured or tenure-track OSU faculty member that has full membership on the Graduate Faculty).
- A tenured or tenure-track OSU faculty member, or a professional person associated with OSU as a clinical, research or adjunct faculty with full or associate membership on the Graduate Faculty. This person is to be housed in the within the Department of Entomology and Plant Pathology.
- A tenured or tenure-track OSU faculty member, or a professional person associated with OSU as a clinical, research or adjunct faculty with full membership on the Graduate Faculty that is from outside the Department of Entomology and Plant Pathology. This person is considered the "outside" member of the committee.

- A fourth tenured or tenure-track OSU faculty member, or a professional person associated with OSU as a clinical, research or adjunct faculty with full or associate membership standing in the Graduate Faculty. This member may be housed either in the Department of Entomology and Plant Pathology or another department.
- A fifth committee member (as described in the bullet immediately above this one) if deemed necessary by the committee.

The Advisory Committee makes recommendations regarding the student's Plan-of-Study and will supervise and review his or her research projects.

The Head of the Department of Entomology and Plant Pathology is considered a non-voting ex-officio member of all Advisory Committees, and must be notified one week prior to all meetings and examinations.

The student and Major Advisor select the Advisory Committee. Committees must be formed by the end of the first regular semester in which the student is enrolled at OSU. Once potential members are identified, it is the responsibility of the student to visit and ask each individual to serve on the committee. This will help establish rapport between the student and committee members. Provide names of committee members to the Graduate College.

A committee meeting should be scheduled as soon as possible after the selection and approval of committee members. This meeting is for purposes of preparing the Plan-of-Study and approval of the basic concept of the student's research. ***It will be held before the end of the student's first semester (spring or fall).*** After this meeting the student should provide a signed Thesis / Dissertation Committee Meeting Report form (Appendix A, page 39) without a research summary to each committee member and submitted to the Departmental Head. In addition, a student will not be allowed to further enroll in courses unless an approved Plan-of-Study is on file with the Graduate College before the student has completed their 3rd regular semester (summer sessions excluded).

The Advisory Committee will meet at no less than six-month intervals throughout the students program. The purpose of these meetings is to monitor progress on research and course work. At least one week before each committee meeting, the student should provide to committee members a written one-page summary of their research progress since the last meeting. At the completion of all meetings, the student completes and has signed by their committee members, a Thesis/Dissertation Committee Meeting Report form (Appendix A, page 39). A copy is provided to each committee member and to the main office for placement in the student's file.

Doctoral Degree Plan of Study

Before the end of the 3rd regular semester (summer sessions excluded) of graduate enrollment, each doctoral student **must electronically submit an initial POS** to the Graduate College (<http://gradcollege.okstate.edu>). The POS includes creditable graduate work that has been completed beyond the master's degree and the course and research graduate credit hours that will be completed for the degree.

The Doctor of Philosophy degree requires at least 6 semesters of full-time graduate study (a minimum of 90 semester graduate credit hours) beyond the bachelor's degree, or four semesters of full-time graduate study (a minimum of 60 semester graduate credit hours) beyond the MS degree. This includes a minimum of 15 credits and a maximum of 36 credits for the dissertation (ENTO 6000 or PLP 6000). Approximately 75% of the credit hours should be obtained from 5000 and 6000 level courses. The remaining 25% may be taken from 3000* and 4000* level courses which are approved for graduate credit (an asterisk in the OSU catalogue indicates these courses). Any change in the POS must receive prior approval by all members of the student's committee. In addition, students should consult closely with their Advisory Committees on all phases of their research projects. Early during the final semester of enrollment, the POS form should be reviewed by the student and Major Advisor for any changes that were made during the student's program. Any changes should be electronically submitted by the student to the Graduate College as a complete final POS for approval. Students are expected to complete the requirements for the PhD degree within 9.0 years (18 semesters excluding summer sessions) from the student's first semester of

enrollment. The doctoral degree must be completed within four years of passing the qualifying written and oral qualifying examinations. Failure to meet this time limitation requires that the qualifying exams be successfully repeated to continue in the program.

Doctor of Philosophy Degree Program Requirements

PhD - Entomology

Required courses:

ENTO 5464	4 hours: Insect Biology and Classification (Not required if ENTO 4464 previously completed)
ENTO 5003	3 hours: Insect Biochemistry
ENTO 5044	4 hours: Insect Physiology (Not required if ENTO 3044 previously completed)
ENTO 5870	2 hours: Scientific Presentations (both fall and spring semesters – 1 credit hour each). Optional if two semesters of ENTO 5870 were previously completed during an OSU ENTO-PLP master's degree program

Recommended courses:

ENTO/PLP 5524	4 hours: Integrated Management of Insect Pests and Pathogens
ENTO/PLP 5623	3 hours: Advanced Biotechnology Methods
ENTO 5992	2 hours: Career Skills and Professionalism

Plus additional courses to complete the graduate program POS.

PhD - Plant Pathology

Required courses:

Introductory – one is required if not previously taken

PLP 3343	3 hours: Principles of Plant Pathology (Introductory; no graduate credit)
PLP 5343	3 hours: Principles of Plant Pathology

Pathogens courses:

PLP 5104	4 hours: Mycology
PLP 5724	4 hours: Physiology of Host-Pathogen Interactions

Additional Pathogens courses – 2 required:

PLP 5003	3 hours: Plant Nematology
PLP 5014	4 hours: Plant Virology Lecture and Lab
PLP 5304	4 hours: Phytobacteriology

Concepts courses – 2 required (at least one course marked with ** must be completed)

PLP 5524**	4 hours: Integrated Management of Insect Pests and Pathogens
PLP 5613**	3 hours: Host Plant Resistance
PLP 6303	3 hours: Soilborne Diseases of Plants

Professionalism:

PLP 5870	2 hours: Scientific Presentations (both fall and spring semesters – 1 credit hour each). Optional if two semesters of PLP 5870 were previously completed during an OSU ENTO-PLP master's degree program.
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Recommended course:

PLP 5992	2 hours: Career Skills and Professionalism for Scientists
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Plus additional courses to complete the graduate program and POS.

Introductory Seminar

At the beginning of their second semester (fall or spring; not summer), every PhD student is required to present a short seminar as part of the Departmental Seminar Series. The purpose of this short 20-30 minute presentation is to introduce the student to the Department and to give a brief overview of the research the student will be conducting during their degree program. The presentation should include brief background information to help us get to know you, including where you are from, what your home town or country is like, any prior education, hobbies, and interests, etc. You should also include what degree you are working on and who is your Major Advisor. Then give a brief overview of your research area and the approaches you will be using. You do not need to give every specific detail but provide enough information so the audience understands what you will be doing and can provide general suggestions about your research. It should be noted that this is not a proposal defense seminar.

Near the end of your first semester contact the seminar coordinators for the next semester to schedule a date for your presentation. Coordinators for the next few years are listed on page 23. You should work with your Major Advisor on the preparation of your presentation and contact the seminar coordinators for the semester you will be presenting and if you have questions.

Research Proposal

A written proposal is a prerequisite for dissertation preparation. Advisory Committee approval of the proposal is necessary. The proposal must be submitted to all Advisory Committee members two weeks prior to their second committee meeting. This second committee meeting must take place before the end of the student's first year in the program. The research proposal is designed to help the student prepare for conducting research by familiarizing him/her with the relevant literature, scientific writing, and planning experiments (experimental design). A well-written proposal not only functions as a template for you and your committee, but can also be used as the foundation of your thesis or dissertation. The research proposal must be in scientific format with proper references. There are no strict rules as to what goes into a research proposal, but here are some guidelines:

1. Title Page
2. Overview and Objectives
3. Literature Review
4. Experimental Plan (detailed description of how you will conduct your research to meet your objectives)
5. Results to Date (if any)
6. Literature Cited

Research Proposals are first reviewed and approved by the Major Advisor then to Committee members for review and approval.

Research involving human subjects, biological hazards or hazardous materials must be approved by OSU institutional review committees/boards. Please refer to the introductory portion of this handbook (pages 12-14). It is the student's responsibility to work with the major professor to make sure appropriate approvals are obtained before work begins. Failure to do so will result in serious consequences for the student, advisor and the University.

Annual Review of Graduate Student Progress

All graduate students are reviewed annually to ensure progress toward completion of their degree. The information required for this annual review is available on the Ento/Plp Annual Review of Graduate Students form (Appendix A, page 38). Some of the information is provided by the Advisor, but most is to be provided by the student. Completion of this form is a requirement and is to be submitted to the Graduate Coordinator in early to mid-July of each year.

Research

It is the student's responsibility to keep all members of the Advisory Committee informed of the research progress (including copies of the manuscript drafts for review). Adequate time must be allowed for committee review of the research materials in advance of the Graduate College deadlines. Communication with Advisory Committee members is critical to the successful coordination of graduate activities. It is the student's responsibility to make satisfactory progress with their research. A student will receive the grade of "SR" (for satisfactory research) or "UR" (for unsatisfactory research). These grades are given in real time and are permanent. Unsatisfactory research grades do not count towards degree requirements and must be repeated and satisfactorily completed. If a student receives a grade of UR two semesters in a row, they will lose their research/teaching assistantship.

Residence Requirements

A minimum of 30 semester credit hours must be taken in residence at Oklahoma State University. One year of the last two years must be spent in continuous residence at this institution. With prior approval by the Advisory Committee, Department Head, and the Dean of the Graduate College, the student may do research for the degree in absentia. Research conducted while not in residence is under the supervision of the Major Advisor and the Advisory Committee.

Qualifying Examination

The qualifying examination is designed to assess the student's competencies in the fields of study required of a dissertation. The qualifying examination consists of both written and oral components. When completed or nearing completion of formal course work and after formal approval of the research proposal by the Advisory Committee, the PhD student will arrange to take the qualifying examination administered by the Major Advisor and the Advisory Committee. Faculty outside the committee may also be asked to submit questions for portions of the qualifying examination. Faculty outside the committee who submit questions do not have voting privileges. The qualifying exam is comprehensive and covers the entire area of graduate studies. It will consist of both a written and oral component from each committee member. Passing the qualifying examination requires a majority vote, with the Major Advisor voting with the majority. The examination should be taken after most or all of POS course work is completed. A student must be an official PhD candidate for a minimum of 6 months prior to graduation. This requirement should be considered when scheduling qualifying examinations. Results must be reported to:

1. The department using the "Department of Entomology and Plant Pathology PhD Qualifying Examination Results" form (Appendix A, page 40), and to
2. The Graduate College on the "Admission to Doctoral Candidacy" form, which is available at the Graduate College (<http://gradcollege.okstate.edu>).

Written Qualifying Examination

The written qualifying exam must be passed before proceeding to the oral qualifying exam. The committee will submit questions for the written qualifying exam. Each questioner may dictate the conditions for his/her questions (i.e., open or closed book, limits, take-home, etc.). The entire written exam should be completed within 6 weeks. After the exam is completed, the questions will be graded by each examiner and assigned a pass (P) or fail (F) grade. Based on the overall performance of the student the committee will vote to pass or fail the student. If there are one or more dissenting votes, the committee will decide whether to re-administer part or all of the entire exam. The decision and action of the committee is to be recorded on the "PhD Qualifying Examination Results" form (Appendix A; page 40), which is a departmental form. A copy is to be provided to the front office for placement in the student's file. The student will be required to retake failed portions within six weeks of the failure. If a student fails to pass portions of, or all of, the written qualifying exam taken a second time, the second failure results in dismissal from their program.

Oral Qualifying Examination

The oral examination provides each student with an opportunity to respond to follow-up questions related to the written examination and/or other questions. The oral examination provides another opportunity to assess the student's ability. After passing the written exam, the student is required to take an oral exam within 2-6 weeks. The student's Advisory Committee administers the oral exam, but only Committee members and the Department Head may be present during deliberation and voting. However, a faculty member external to the Department can be requested by the student or Major Advisor to serve as a neutral observer during the deliberation and voting process. Unless the Department Head is a member of the committee, he/she may not vote. The decision of the committee to pass a student is based on the performance of the student in both written and oral portions of the exam, as well as the potential of the student as evidenced by research performance, course work, and overall commitment to graduate level study. Unanimous approval is required for an unconditional pass. A non-unanimous, committee vote will result in a conditional pass, in which the committee will decide on an appropriate course of action to correct any deficiency noted on the part of the dissenting member(s). A dissenting vote by the Major Advisor, a majority of dissenting votes, or an even vote will result in failure. The decision and action of the committee is to be recorded on the "PhD Qualifying Examination Results" form (Appendix A, page 40), which is a Departmental form. A copy is to be provided to the front office for placement in the student's file. Failure to pass the first oral qualifying exam results in an opportunity to retake the exam after a time deemed appropriate by the committee. Typically this is after at least a month from the date of the first oral qualifying exam. If a student fails to pass the second qualifying exam, the second failure results in dismissal from the program. Passage of the **qualifying** exam typically allows a student to transition into formal doctoral candidate status (see below).

Admission to Doctoral Candidacy

In order to become a Doctoral Candidate, a student must:

1. Have an approved Plan-of-Study on file in the Graduate College.
2. Pass the written and oral qualifying examinations.
3. Have a research proposal approved by the student's Advisory Committee.

Once these three requirements have been fulfilled, a student files with the Graduate College an Admission to Doctoral Candidacy form available at <https://gradcollege.okstate.edu/FormsPage>. Doctoral candidacy will begin the semester after the form is filed and allows the student to enroll in two credit hours to be considered a full-time student. Typically, a pay raise is associated with admission to doctoral candidacy contingent upon available funding.

Doctoral Dissertation

Important Graduation Dates, Deadlines, and Forms

All students should visit the Graduate College website (<http://gradcollege.okstate.edu>) to review the numerous forms and deadlines for which they are responsible. Students planning to graduate must submit a graduation clearance form, signed by their advisor, in their last semester. This form guides students through the process of verifying that degree requirements will be met. An extremely important step in this process is checking that courses listed on the Plan-of-Study have been taken and that the course prefix and number match those on transcript **exactly**. This form must be received by the Graduate College before a graduate student can apply for a diploma application with the Registrar's Office.

Application for Diploma

Application must be made at the time of enrollment for the semester in which the degree is conferred (see http://registrar.okstate.edu/index.php?option=com_content&view=article&id=23&Itemid=18). Failure to file an application for a diploma card means you cannot graduate in that semester. In addition, the student must confirm that the Plan-of-Study is up-to-date. If the student does not graduate in the planned semester they must resubmit the application for diploma. All students must be enrolled in at least two semester credit hours during the semester they plan to graduate.

Final Semester Graduate College Forms

International students must complete a final semester verification form available at the Office of International Students and Scholars (<http://iss.okstate.edu>). International graduate students must complete this form even in not subsequently applying for Optional Practical Training (OPT), which would allow them to enroll for less than 6 graduate credit hours during their final semester. Domestic students must complete a final semester verification form available at the Graduate College (<http://gradcollege.okstate.edu>). All students must submit a Graduation Clearance Form, which also is available at the Graduate College (<http://gradcollege.okstate.edu/>).

Dissertation Format

Electronic submission of the final dissertation to the Graduate College is required. The student must follow the format guidelines in the Thesis/Dissertation Handbook that can be found at <https://gradcollege.okstate.edu/tdg>. The Department of Entomology and Plant Pathology generally allows students to use one of two thesis formats. Refer to the Graduate College guidelines at <https://gradcollege.okstate.edu/content/thesis-and-dissertation-templates>. One is the traditional format and the second is a format that involves a collection of manuscripts in refereed scientific journal form. The student should work with the Major Advisor and members of the Advisory Committee to determine the most appropriate format.

Oral Defense of Dissertation

An oral defense primarily consists of the material presented in the dissertation and is considered the final examination. A minimum of 6.0 months must elapse between passing the qualifying examinations and approval by the dean of the Graduate College for admission to doctoral candidacy, and defense of the dissertation. At least two weeks prior to the dissertation defense, the student must submit a final draft of his/her dissertation to the committee. Major problems with the dissertation should be discussed with the student and corrected prior to scheduling the defense. The defense (or final examination) constitutes a public defense of the student's research. The defense consists of a public seminar that is followed by a private examination administered to the student by the Major Advisor and Advisory Committee. At least two weeks before the defense the student should notify the EPP office staff of the title, date, time, and location of the seminar so that a flyer can be posted and Department faculty, staff, students can be notified by email. Following an oral presentation of the student's dissertation research, the committee will administer a final oral examination. If a student fails to pass the second oral defense of dissertation exam, then the second failure results in dismissal from the program. Following the oral examination, the student immediately submits the Result of Final Examination form available from the Departmental Graduate Coordinator or online at http://gradcollege.okstate.edu/sites/default/files/Thesis_and_Dissertation_Defense_Results.pdf

Final Copy of Dissertation

After successful defense of the thesis the student prepares a final version incorporating any changes required by the Major Advisor and Advisory Committee. The final copy in electronic version is submitted to the Graduate College and the Department Head. The Department will print and bind a copy of the thesis that will reside in the Department office. See <http://gradcollege.okstate.edu/tdg> for further information.

Completion

Submit a final copy of the dissertation in electronic form to the Graduate College and the Department Head. Consult with your advisor first. You can obtain bound copies of your dissertation for yourself and your committee by purchasing the paper and/or using one of the local printing companies in town such as FedEx Office. The Departmental copier should not be used to duplicate your dissertation. Several binders are located within the state that can bind your document. One is Ace Bookbinding Co. in Oklahoma City at 825 North Classen Blvd. Purchase or rent the cap, gown, and hood at the Student Union Bookstore. Attend your commencement ceremony.

Congratulations - Please keep the Department informed on your address and professional and personal news.

Responsibilities for the Doctoral Program

Department Head

1. Monitor the Department Graduate Program.
2. Provide guidance to the graduate student and faculty.
3. Enforce rules, policies, and timelines outlined in this handbook.

Major Advisor

1. Review program possibilities and mentor the student throughout their program.
2. Assist the student in organizing an Advisory Committee and developing a Plan-of-Study.
3. Chair Advisory Committee meetings.
4. Advise the student during research; suggest appropriate consultation related to the research design, statistics, and computer use.
5. Plan and coordinate course completion, research conductance and completion, qualifying examination, submission of draft copy of the dissertation to the committee for review and approval, dissertation defense, and submission of final copy of dissertation to the Graduate College.

Advisory Committee

1. Assist the student in preparing a Plan-of-Study.
2. Assist the student in planning and supervising the research.
3. Assist the student in the preparation and evaluation of the qualifying examination.
4. Review and evaluate the dissertation.
5. Conduct the final examination.

Student

1. Read thoroughly:
 - a. Graduate College policies and procedures, and the Departmental Handbook
 - b. Adhere to all departmental and university policies and procedures including safety training, RCR training, and Title VII and Title XI training.
2. With the assistance of your advisor:
 - a. Develop a Plan-of-Study and file with Graduate College before the end of your third regular semester (excluding summer semester).
 - b. Plan each semester's enrollment.
 - c. Establish research project with a research proposal approved by committee.
 - d. Organize the Advisory Committee.
 - e. Plan Advisory Committee meetings and submit tracking forms.
 - f. Obtain an IRB approval of research proposal, if required, complete research.
3. When enrolling for the semester in which the degree will be conferred, recheck the Plan-of-Study (POS and transcript must match). When enrolling for the semester in which the degree will be conferred refer to <http://gradcollege.okstate.edu/doctoral-checklist>
4. Meet the Graduate College deadline dates listed in the current catalog regarding:
 - a. Notice of intention.
 - b. Plan-of-Study and dissertation outline.
 - c. Qualifying examination.
 - d. Draft copy of the dissertation.
 - e. Final oral examination.
 - f. Final copy of the dissertation.
5. Turn in copy of the dissertation abstract to the Department Office.
6. Exit interview with Department Head.

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Doctoral Degree Graduate Student Checklist

Student's Name _____ Program Start Date _____

- ____ 1. Initial interview. Discuss professional goals and objectives, professional experience, academic plans, program opportunities with Advisor.
- ____ 2. Review Graduate Student Handbook and Graduate Catalog.
- ____ 3. Develop a draft Plan-of-Study (POS). **No Later Than (NLT) end 1st semester**
- ____ 4. Organize a Graduate Advisory Committee. **NLT end 1st semester**
- ____ 5. Complete Responsible Conduct of Research (RCR) requirements and notify Graduate Program Office.
- ____ 6. Read the Gender Discrimination-Sexual Harassment and Title IX Grievance Procedure Policy (OSU Policy and Procedure 1-0702. Mandatory. **NLT end of 2nd semester**
- ____ 7. Finalize initial Plan-of-Study and submit it to the Graduate College. **NLT end of 3rd semester**
- ____ 8. Select a dissertation research topic. **NLT end 1st semester**
- ____ 9. Develop the dissertation proposal. **NLT end 1st semester**
- ____ 10. Present written dissertation proposal to Graduate Advisory Committee within first 12 months of program.
- ____ 11. Present introductory Seminar to the Department by the end of the second semester.
- ____ 12. Pass the qualifying written and oral examinations.
- ____ 13. Verify the "Admission to Doctoral Candidacy" form is on file in the Graduate College.
- ____ 14. Amend the Plan-of-Study (if necessary). Submit the final POS to the Graduate College within two weeks of the start of your graduation semester – IF changes have been made to the initial POS.
- ____ 15. Complete submission to Doctoral Candidacy form to the Graduate College at least six months prior completing the degree.
- ____ 16. Submit a Graduate Clearance Form to the Graduate College (<http://gradcollege.okstate.edu>) within the first month of the final semester.
- ____ 17. Submit on-line Diploma Application Form early in the semester in which your degree will be conferred.
<http://prodosu.okstate.edu>; <http://registrar.okstate.edu>
- ____ 18. Attend Thesis/Dissertation Review Workshop. Schedule: <http://gradcollege.okstate.edu>
- ____ 19. Complete dissertation and abstract. Dissertation guidelines: <http://gradcollege.okstate.edu>
- ____ 20. Conduct dissertation defense. Pass final defense examination and submit results to the Graduate College. ("Thesis/Dissertation Oral Defense Results" form). <http://gradcollege.okstate.edu/>
- ____ 21. Complete required revisions to dissertation. Obtain a fully signed Dissertation Signature Approval Page from the Advisory Committee.
- ____ 22. Complete on-line submission of dissertation to the Graduate College. Also, submit a signed original paper copy of the Dissertation Approval Page to the Graduate College with your CWID noted at the top.
- ____ 23. Submit electronic copy of dissertation to the Graduate College and pay submission fees.
- ____ 24. Submit electronic copy of dissertation to Department Head.
- ____ 25. Complete all planned coursework or research credit hours.
- ____ 26. Submit "Graduation Clearance for Graduate Students" form to the Grad College by deadline date (see: <http://gradcollege.okstate.edu> to obtain the form).
- ____ 27. Conduct Exit Interview with Department Head.
- ____ 28. Rent or buy Cap, Gown, and Hood at Student Union Bookstore. Attend your Commencement Ceremony.

Appendix A – Departmental Procedures, Faculty, Forms, Course Offerings, Check Lists

Operational Functions

Office and Desk Assignments

Offices and desks in the NRC graduate student suites will be assigned in consultation with the Department Head, as space is available.

Door Keys

Upon entering the Department, students will be issued keys (\$2.00 deposit per key) to the building and lab as appropriate. The student is responsible for the security of these keys, and must return all keys to the main office before leaving the Department. Keys should not be loaned or given to other students or faculty. Failure to turn in your keys to the main office can result in a \$25 per key charge to your Bursar account.

Photocopying and Scanning

Students may use the Department's photocopy machines, observing the following guidelines:

1. Copying of personal materials will incur a charge (to be paid at the time copies are made) of \$0.05 per copy or current rate.
2. Copying of instructional materials for students enrolled in Departmental classes will incur a charge be paid at the time copies are made of \$0.05 per copy.
3. Copying of instructional materials by Teaching Assistants for use in their class must first be approved by the instructor and will be billed to the "Teaching Account."
4. Scanning of documents is available at no charge and are directly sent to an e-mail address in .pdf format

Poster Making

Stillwater businesses print posters for a cost. Check for competitive pricing. There also are many on-line type printing services including printing on cloth for ease of carrying on planes. Check with you advisor.

Faculty Areas of Interest

Entomology

Dr. Kristopher Giles	Field crops pest management
Dr. Wyatt Hoback	Teaching. Insects and Society. Biology/Classification. Behavior/Chemical Ecology
Dr. Haobo Jiang	Insect molecular biology
Dr. Brad Kard	Structural and Urban arthropod pests-termites. Interim Pesticide Safety Coord.
Dr. Phil Mulder	Department Head. Alfalfa and peanut arthropod pests
Dr. Bruce Noden	Medical and Veterinary Entomology
Dr. George Opit	Stored grain arthropod pests
Dr. Eric Rebek	Extension entomologist. Horticultural, ornamental, and landscape arthropod pests
Dr. Tom Royer	IPM Coordinator. Small grain and row crop pest management
Dr. Justin Talley	Livestock arthropod pest management

Plant Pathology

Dr. Kitty Cardwell	Director, NIMFFAB. Microbial Forensics. Agriculture Biosecurity.
Dr. John Damicone	Extension plant pathologist. Peanut and vegetable crops diseases
Dr. Carla Garzon	Soilborne diseases of plants
Dr. Bob Hunger	Wheat pathology
Dr. Li Maria Ma	Food microbiology
Dr. Steve Marek	Fungal functional genomics
Dr. Francisco Ochoa Corona	Plant Virology. Biosecurity. Microbial Forensics . Diagnostics
Dr. Nathan Walker	Turfgrass Integrated Pest Management
Dr. Astri Wayadande	Vector Biology. Insect Behavior

Adjunct Faculty – Entomology

Dr. Charles Abramson	Adjunct Professor; OSU-Department of Psychology
Dr. Scott Armstrong	Adjunct Associate Professor; USDA-ARS-Stillwater
Dr. Kristen Baum	Adjunct Professor; OSU-Department of Zoology
Dr. Norman C. Elliott	Adjunct Professor; USDA-ARS-Stillwater
Dr. Francisco Flores	Adjunct Assistant Professor, Universidad de las Fuerzas Armadas ESPE-Ecuador
Dr. John Foster	Adjunct Professor; University of Nebraska Emeritus
Dr. Steven D. Frank	Adjunct Assistant Professor; North Carolina State University
Dr. Carmen Greenwood	Adjunct Associate Professor; Murray State University, Kentucky
Dr. Debra Jaworski	Adjunct Assistant Professor
Dr. Jackie Lee	Adjunct Assistant Professor; University of Arkansas, Little Rock
Dr. Brian McCornack	Adjunct Associate Professor; Kansas State University
Dr. J.P. Michaud	Adjunct Associate Professor; Kansas State University
Dr. Gary Puterka	Adjunct Professor; USDA-ARS-Stillwater
Dr. Hal Reed	Adjunct Professor; Oral Roberts University
Dr. Michael Reiskind	Adjunct Assistant Professor; North Carolina State University
Dr. Kevin Shufran	Adjunct Associate Professor; USDA-ARS retired

Adjunct Faculty – Plant Pathology

Dr. Hassan A. Melouk	Adjunct Professor. USDA-ARS (retired)
Dr. Kirankumar Mysore	Adjunct Professor. Noble Foundation
Dr. Richard Nelson	Adjunct Professor. Noble Foundation
Dr. Kay Sheets	Adjunct Assistant Professor. OSU Department of Botany
Dr. Carolyn Young	Adjunct Associate Professor. Noble Foundation

Additional Faculty (Including non-tenure track) – Entomology and Plant Pathology

Dr. Trena Blagdon	Assistant Research Scientist (NIMFFAB)
Edmond Bonjour, MS	Director OK Ag Leadership Program; Extension Entomologist (SPREC - stored products)
Dr. Jack Dillwith	Adjunct Professor Emeritus; Oklahoma State University
Jennifer Olsen, MS	Assistant Extension Specialist (PDIDL)
Kelly Seuhs, MS	Assistant Extension Specialist (Canola; Alfalfa; Peanuts; Fruit trees)
Dr. Andrine Shufran	Associate Extension Specialist (Insect Adventure)
Dr. Ali Zarrabi	Assistant Research Professional (Canola-Wheat IPM)

Annual Review of Graduate Students - Department of Entomology & Plant Pathology

Student name:

Program/degree option:

Date entered current degree program:

Cumulative grade point average:

PART A: Student Self Report and Self-Assessment (to be completed by the student)

1. List all course work completed including required courses and grades. Indicate course work completed during the last year with grade. A printed Plan of Study can be used.
2. List other degree requirements completed (e.g., English proficiency during the last year or introductory seminar)
3. List all exams completed (e.g., program qualifying or comprehensive, Graduate College qualifying exam or final defense). Include committees formed, exams scheduled and exam results during the last year.
4. List other milestones completed (e.g., internships, or training) during the last year.
5. List the status of thesis/dissertation. Describe progress in the last year.
6. List service during the last year (e.g., volunteering at educational or extension outreach events, activity in professional organizations and local clubs, or teaching activities including evaluations if available).
7. List fellowships held during the last year.
8. List professional activity (e.g., papers, presentations, or publications) during the last year.
9. List honors, awards, competitive scholarships, or other recognitions during the last year.
10. List extenuating circumstances during the past year, if applicable.

Signature of Student and Date submitted to adviser: _____

PART B: Elements of the Department Review (to be completed by the adviser)

1. Address areas of strength (examples from areas such as courses, milestones completed, research, teaching, or professional activity).
2. Address areas for growth and development (e.g., development of research, writing, public speaking skills, and/or teaching skills, improved course performance, or project outcomes) for the next year.
3. Address milestones to complete (see suggestions above)/plans for the next year (e.g., courses and credit hours to complete, exams to complete, expected progress on thesis/dissertation/project, publications or other professional activity).
4. Provide estimated Graduation Date based on current degree progress.

Meeting with Student: Note the date of meeting, who conducted the meeting, and any additional notes.

Attachments: Current Student CV: The current CV should indicate information of academic and professional activity and accomplishments previous to the last academic year.

Student comments after the meeting: _____

Adviser comments after the meeting: _____

Signatures of Adviser and/or Review Committee Chairperson and dates:

(Please place a copy in student file; and provide a copy to the student)

Signature of Graduate Coordinator and dates:

(This is only to acknowledge of when the review was completed and submitted to the department. The graduate coordinator will not be reviewing content unless requested by both the student and advisor.)

Student Name: _____ Date of Meeting: _____



Thesis/Dissertation Committee Meeting Report



Regularly scheduled committee meetings are an important aspect of graduate student study. The committee meeting serves as a time for the student to present the findings of his/her research to the committee and enables the committee to be informed of the student's progress. It provides the student and committee an opportunity to troubleshoot and solve research issues, creates an opportunity to reevaluate the need for certain projects, and the ability to adjust the objectives of the students research. The committee meeting facilitates timely progress by the student and committee members on the objectives of a research project through frequent and regular meeting sessions. A committee meeting should be viewed as a positive and beneficial task. The committee meeting is not an examination of the student.

At each committee meeting the student should provide either a written report or power point presentation containing the following sections:

- _____ 1. New and existing research approaches for each objective
- _____ 2. For each objective, a summary of progress since the last committee meeting
- _____ 3. New data (including graphs, tables, and statistical analysis if appropriate) since the last committee meeting

Written reports should be clear, concise, and in proper scientific style. Presentation format should follow that of a seminar. Students should consult their advisor for guidance or questions when developing the report or presentation. Upon completion of the committee meeting, a signed copy of this form **must be submitted to the Department Head to be placed in the students personnel file.**

<u>Committee Member Signatures</u>	<u>Committee Member Printed Name</u>	<u>Comments</u>
_____ (ADVISOR)	_____	_____
_____ (CO-ADVISOR)	_____	_____
_____	_____	_____
_____	_____	_____
_____	_____	_____

**DEPARTMENT of ENTOMOLOGY AND PLANT PATHOLOGY
PhD QUALIFYING EXAMINATION RESULTS**

To: Department Head, Entomology and Plant Pathology

Date: _____

RE: Qualifying examination administered to:

Student: _____

CWID#: _____

Major: _____

Minor: _____

Major Advisor: _____

Committee Chair: _____

Committee Members and Department: Indicate by signature below if the student passed, or did not pass, their qualifying examination.

Student passed their
qualifying examination

Student did not pass their
qualifying examination

Major Advisor

Major Advisor

Committee Member

Committee Member

Committee Member

Committee Member

Committee Member

Committee Member

Committee Member

Committee Member

Written Qualifying Exam Date: _____

Written Examination Results: Pass / Not Pass

Oral Qualifying Exam Date: _____

Oral Examination Results: Pass / Not Pass

Comments:

Note. Written exam must be passed before taking the oral exam. Both the written and oral exams must be passed to overall pass the qualifying examination. A dissenting vote by the Major Advisor, a majority of dissenting votes, or an 'even' vote results in a 'not pass'.

Schedule of Course Offerings

Use this as a guide as course offerings frequently change.

For variable credit hour courses, coordinate with the course instructor to determine the number of credit hours to take

*after the course number = receives graduate credit

FALL 2018

ENTO 2003	"Insects and Society" (Hoback, Giles,) every fall
ENTO 2223	"Insects in Global Public Health" (Noden) every fall
ENTO 2993	"Introduction to Entomology" (Opit) every fall
ENTO 3644	"Insect Morphology" (staff) not offered
ENTO 4223	"Ecological Methodology" Undergraduate (Giles) even fall
ENTO 4223*	"Ecological Methodology" Graduate (Giles) even fall
ENTO 4400	"Special Topics" (1-3 credit hours - maximum 3; no graduate credit)
ENTO 4400	"Honors Insects and Society" (Hoback)
ENTO 4464*	"Insect Biology & Classification" (Hoback) every fall
ENTO 4733	"Insect Behavior and Chemical Ecology" (Wayadande) even spring
ENTO 4800	"Entomology Practicum"
ENTO 4800	"Intro to Research" (1 credit hour; Hoback) every fall
ENTO 5000	"Research"
ENTO 5003	"Insect Biochemistry" (Jiang) even fall
ENTO 5020	"Special Problems"
ENTO 5020	"Microbial Forensics in Biosecurity-Detection through Litigation (2 credits; Cardwell) every fall
ENTO 5464	"Insect Biology & Classification" (Hoback; Lab) every fall
ENTO 5613	"Host Plant Resistance" (Hunger) even fall
ENTO 5644	"Insect Morphology" (staff) not offered
ENTO 5700	"Teaching Practicum in Entomology & Plant Pathology" (1-6 credit hours; Staff)
ENTO 5733	"Insect Behavior and Chemical Ecology" (Wayadande) even spring
ENTO 5870	"Scientific Presentations" (1 credit hour; Garzon) every fall
ENTO 5992	"Career Skills & Professionalism for Scientists" (Ma/Hunger) every fall
ENTO 6000	"Research"
ENTO 6100	"Adv Insect Physiology" (1-5 credit hours; not offered)

PLP 3343	"Principles of Plant Pathology" (Garzon) every fall
PLP 4400	"Special Topics" (1-3 credit hours - maximum 3; no graduate credit)
PLP 5000	"Research"
PLP 5014	"Plant Virology (Ochoa Corona) even spring
PLP 5343	"Principles of Plant Pathology" (Garzon) every fall
PLP 5560	"Problems in Plant Pathology" (1-5 credit hours)
PLP 5560	"Microbial Forensics in Biosecurity-Detection through Litigation (2 credits; Cardwell) every fall
PLP 5560	"Detection of Food Borne Pathogens" (1 credit hour; Ma) even fall
PLP 5560	"Problems in Plant Pathology: Plant Disease Epidemiology" (Melouk); every semester
PLP 5613	"Host Plant Resistance" (Hunger) even fall
PLP 5700	"Teaching Practicum in Entomology & Plant Pathology" (1-6 credit hours; Staff)
PLP 5870	"Scientific Presentations" (1 credit hour; Garzon) every fall
PLP 5992	"Career Skills & Professionalism for Scientists" (Ma/Hunger) every fall
PLP 6000	"Research"

SPRING 2019

ENTO 2003	"Insects and Society" (Hoback) every semester
ENTO 2143	"Global Issues in Agricultural Biosecurity and Forensics" (Ochoa-Corona) odd spring
ENTO 2993	"Introduction to Entomology" (Opit) every spring
ENTO 3003	"Livestock Entomology" (Talley) every spring
ENTO 3021	"Post-harvest, Structural and Urban Insect Pests" (Opit and Kard; Lab) odd spring
ENTO 3044	"Insect Physiology" (staff) odd spring (combined with 3644)
ENTO 3331	"Insect Pests of Agronomic Crops" (Royer) odd spring
ENTO 3644	"Insect Morphology" (staff) (combined with 3044)
ENTO 3663	"Turfgrass Integrated Pest Management" (Walker) odd spring
ENTO 4400	"Special Topics" (1-3 credit hours - maximum 3; no graduate credit)
ENTO 4400	"Honors Insects and Society" (Hoback)
ENTO 4800	"Entomology Practicum"
ENTO 4800	"Entomology Practicum" - "Lab Rotation" (Section 352 ; 1 credit hour; Hoback) every spring
ENTO 5000	"Research"
ENTO 5020	"Special Problems" (1-8 credit hours)
ENTO 5020	"Food Safety in Biosecurity" (Ma)
ENTO 5044	"Insect Physiology" (staff) odd spring (combined with 5644)
ENTO 5644	"Insect Morphology" (staff) (combined with 5044)
ENTO 5700	"Teaching Practicum in Entomology" (1-6 credit hours; Staff)
ENTO 5710	"Advanced Medical and Veterinary Entomology" (1-6 credit hours; Noden) odd spring
ENTO 5870	"Scientific Presentations" (1 credit hour; Hoback) every spring
ENTO 6000	"Research"
ENTO 6100	"Advanced Insect Physiology (1-5 credit hours; not offered)

PLP 2143	"Global Issues in Agricultural Biosecurity and Forensics" (Ochoa-Corona) odd spring
PLP 3663	"Turfgrass Integrated Pest Management" (Walker) odd spring
PLP 4400	"Special Topics" (1-3 credit hours - maximum 3; no graduate credit)
PLP 5000	"Research"
PLP 5304	"Phytobacteriology" (Fletcher and Ma) odd spring
PLP 5560	"Problems in Plant Pathology" (1-5 credit hours)
PLP 5560	"Human Pathogens on Produce" (1 credit hour; Ma) even fall
PLP 5560	"Problems in Plant Pathology: Plant Disease Epidemiology" (Melouk/) every semester
PLP 5700	"Teaching Practicum in Plant Pathology" (1-6 credit hours; Staff)
PLP 5870	"Scientific Presentations" (1 credit hour; Hoback) every spring
PLP 6000	"Research"
PLP 6303	"Soilborne Diseases of Plants" (Garzon) odd spring

SUMMER 2019

ENTO 2003	"Insects and Society" (Hoback) WEB
ENTO 4400	"Honors Insects and Society" (Hoback; WEB)

FALL 2019

ENTO 2003	"Insects and Society" (Hoback) every semester
ENTO 2223	"Insects in Global Public Health (Noden) every fall
ENTO 2993	"Introduction to Entomology" (Grantham and Opit; Lab-Thursday) every fall
ENTO 3461	"Insects of Forest Ecosystems: (Rebek; Lab) odd fall

ENTO 4400	"Special Topics" (1-3 credit hours - maximum 3; no graduate credit)
ENTO 4464	"Insect Biology & Classification" (Hoback; Lab) every fall
ENTO 4573	"Intro to Forensic Entomology" (Talley/Hoback) odd fall
ENTO 4800	"Entomology Practicum
ENTO 4800	"Intro to Research" (1 credit hour; Hoback) every fall
ENTO 4854	"Medical and Veterinary Entomology" (Noden; Lab) odd fall
ENTO 4923*	"Applications of Biotechnology in Pest Management (not offered -odd fall)
ENTO 5000	"Research"
ENTO 5020	"Special Problems" (1-8 credit hours)
ENTO 5020	"Microbial Forensics in Biosecurity-Detection through Litigation (2 credits; Cardwell) every fall
ENTO 5464	"Insect Biology & Classification" (Hoback; Lab) every fall
ENTO 5513	"Biological Control" (Giles/Rebek; Lab) odd fall
ENTO 5573	"Intro to Forensic Entomology" (Talley/Hoback) odd fall
ENTO 5700	"Teaching Practicum in Entomology & Plant Pathology" (1-6 credit hours; Staff)
ENTO 5850	"Epidemiology of Arthropod-Borne Diseases" not offered
ENTO 5623	"Advanced Biotechnology Methods" (Jiang/Ma) odd fall
ENTO 5870	"Scientific Presentation" (1 credit hour; Garzon) every fall
ENTO 5992	"Career Skills & Profess. For Scientists" (Ma/Hunger) every fall
ENTO 6000	"Research"
ENTO 6100	"Adv Insect Physiology" (1-5 credit hours; not offered)

PLP 3343	"Principles of Plant Pathology" (Garzon) every fall
PLP 3553	"Fungi: Myth & More" (Marek; cross listed with BOT) odd fall
PLP 4400	"Special Topics" (1-3 credit hours - maximum 3; no graduate credit)
PLP 4923*	"Applications of Biotechnology in Pest Management (not offered -odd fall)
PLP 5000	"Research"
PLP 5003	"Plant Nematology" (Walker) odd fall
PLP 5013	"Plant Virology" (TH Verchot) odd fall
PLP 5104	"Mycology" (Marek crossed with BOT) odd fall
PLP 5343	"Principles of Plant Pathology" (Garzon) every fall
PLP 5560	"Problems in Plant Pathology" (1-5 credit hours)
PLP 5560	"Problems in Plant Pathology Human Pathogens on Produce" (1 credit hr, Ma)
PLP 5560	"Problems in Plant Pathology: Plant Disease Epidemiology" (Melouk) every semester
PLP 5560	"Microbial Forensics in Biosecurity-Detection through Litigation (2 credits; Cardwell) every fall
PLP 5623	"Advanced Biotechnology Methods" (Jiang/Ma) odd fall
PLP 5700	"Teaching Practicum in Entomology & Plant Pathology" (1-6 credit hours; Staff)
PLP 5870	"Scientific Presentation" (1 credit hour; Garzon) every fall
PLP 5992	"Career Skills & Professionalism for Scientists" (Ma/Hunger) every fall
PLP 6000	"Research"

SPRING 2020

ENTO 2003	"Insects and Society" (Hoback) every semester
ENTO 2993	"Introduction to Entomology" (Opit) every spring
ENTO 3003	"Livestock Entomology" (Talley) every spring
ENTO 3421	"Horticultural Insects" (Rebek) even spring
ENTO 4400	"Special Topics" (1-3 credit hours - maximum 3; no graduate credit)
ENTO 4400	"Honors Insects and Society" (Hoback)
ENTO 4484	"Aquatic Entomology" (Hoback; crossed w/ zoology) even spring
ENTO 4733	"Insect Behavior and Chemical Ecology" (Wayadande) even spring
ENTO 4800	"Entomology Practicum"

ENTO 4800	"Lab Rotation" 1 credit hour; Hoback) every spring
ENTO 5000	"Research"
ENTO 5020	"Special Problems" (1-8 credit hours)
ENTO 5020	"Food Safety in Biosecurity" (Ma)
ENTO 4400	"Special Topics" (1-3 credit hours - maximum 3; no graduate credit)
ENTO 4400	"Honors Insects and Society" (Hoback)
ENTO 5484	"Aquatic Entomology" (Hoback; crossed w/ zoology) even spring
ENTO 5524	"Integrated Management of Insect Pest & Pathogens" (Walker/Giles) even spring
ENTO 5700	"Teaching Practicum in Entomology & Plant Pathology" (1-6 credit hours; Staff)
ENTO 5733	"Insect Behavior and Chemical Ecology"(Wayadande) even spring
ENTO 5753	"Insecticide Toxicology" (staff) even spring
ENTO 5833	"Insect Molecular Biology" (Jiang) even spring
ENTO 5870	"Scientific Presentations (1 credit hour; Hoback) every spring
ENTO 6000	"Research"
ENTO 6100	"Adv Insect Physiology (1-5 credit hours; not offered

PLP 4400	"Special Topics" (1-3 credit hours - maximum 3; no graduate credit)
PLP 5000	"Research"
PLP 5014	"Plant Virology" (Ochoa Corona) even spring
PLP 5524	"Integrated Management of Insect Pest & Pathogens" (Walker/Giles) even spring
PLP 5560	"Problems in Plant Pathology" (1-5 credit hours)
PLP 5560	"Food Safety in Biosecurity" (Ma)
PLP 5560	"Problems in Plant Pathology: Plant Disease Epidemiology" (Melouk) every semester
PLP 5700	"Teaching Practicum in Entomology & Plant Pathology" (1-6 credit hours; Staff)
PLP 5724	"Physiology of Host-Pathogen Interactions" (staff) even spring
PLP 5860	"Colloquium" (Marek) not offered
PLP 5870	"Scientific Presentations (1 credit hour; Hoback) every spring
PLP 6000	"Research"

SUMMER 2020

ENTO 2003	"Insects and Society" (Hoback) WEB
ENTO 4400	"Honors Insects and Society" (Hoback; WEB)

FALL 2020

ENTO 2003	"Insects and Society" (Hoback, Giles,) every fall
ENTO 2223	"Insects in Global Public Health" (Noden) every fall
ENTO 2993	"Introduction to Entomology" (Opit) every fall
ENTO 3644	"Insect Morphology" (staff) not offered
ENTO 4223	"Ecological Methodology" Undergraduate (Giles) even fall
ENTO 4223*	"Ecological Methodology" Graduate (Giles) even fall
ENTO 4400	"Special Topics" (1-3 credit hours - maximum 3; no graduate credit)
ENTO 4400	"Honors Insects and Society" (Hoback)
ENTO 4464*	"Insect Biology & Classification" (Hoback) every fall
ENTO 4733	"Insect Behavior and Chemical Ecology" (Wayadande) odd spring
ENTO 4800	"Entomology Practicum"
ENTO 4800	"Intro to Research" (1 credit hour; Hoback) every fall
ENTO 5000	"Research"
ENTO 5003	"Insect Biochemistry" (Jiang) even fall
ENTO 5020	"Special Problems"

ENTO 5020	"Microbial Forensics in Biosecurity-Detection through Litigation (2 credits; Cardwell) every fall
ENTO 5464	"Insect Biology & Classification" (Hoback; Lab) every fall
ENTO 5613	"Host Plant Resistance" (Hunger) even fall
ENTO 5644	"Insect Morphology" (staff) not offered
ENTO 5700	"Teaching Practicum in Entomology & Plant Pathology" (1-6 credit hours; Staff)
ENTO 5733	"Insect Behavior and Chemical Ecology" (Wayadande) odd spring
ENTO 5870	"Scientific Presentations" (1 credit hour; Garzon) every fall
ENTO 5992	"Career Skills & Professionalism for Scientists" (Ma/Hunger) every fall
ENTO 6000	"Research"
ENTO 6100	"Adv Insect Physiology" (1-5 credit hours; not offered)

PLP 3343	"Principles of Plant Pathology" (Garzon) every fall
PLP 4400	"Special Topics" (1-3 credit hours - maximum 3; no graduate credit)
PLP 5000	"Research"
PLP 5104	"Mycology" (Marek crossed with BOT) even fall
PLP 5343	"Principles of Plant Pathology" (Garzon) every fall
PLP 5560	"Problems in Plant Pathology" (1-5 credit hours)
PLP 5560	"Microbial Forensics in Biosecurity-Detection through Litigation (2 credits; Cardwell) every fall
PLP 5560	"Human Pathogens on Produce" (1 credit hour; Ma) even fall
PLP 5560	"Problems in Plant Pathology: Plant Disease Epidemiology" (Melouk) every semester
PLP 5613	"Host Plant Resistance" (Hunger) even fall
PLP 5700	"Teaching Practicum in Entomology & Plant Pathology" (1-6 credit hours; Staff)
PLP 5870	"Scientific Presentations" (1 credit hour; Garzon) every fall
PLP 5992	"Career Skills & Professionalism for Scientists" (Ma/Hunger) every fall
PLP 6000	"Research"

SPRING 2021

ENTO 2003	"Insects and Society" (Hoback) every semester
ENTO 2143	"Global Issues in Agricultural Biosecurity and Forensics" (Ochoa-Corona) odd spring
ENTO 2993	"Introduction to Entomology" (Opit) every spring
ENTO 3003	"Livestock Entomology" (Talley) every spring
ENTO 3021	"Post-harvest, Structural and Urban Insect Pests" (Opit and Kard; Lab) odd spring
ENTO 3044	"Insect Physiology" (staff) odd spring (combined with 3644)
ENTO 3331	"Insect Pests of Agronomic Crops" (Royer) odd spring
ENTO 3644	"Insect Morphology" (staff) (combined with 3044)
ENTO 3663	"Turfgrass Integrated Pest Management" (Walker) odd spring
ENTO 4400	"Special Topics" (1-3 credit hours - maximum 3; no graduate credit)
ENTO 4400	"Honors Insects and Society" (Hoback)
ENTO 4800	"Entomology Practicum"
ENTO 4800	"Entomology Practicum" - "Lab Rotation" (Section 352 ; 1 credit hour; Hoback) every spring
ENTO 5000	"Research"
ENTO 5020	"Special Problems" (1-8 credit hours)
ENTO 5020	"Food Safety in Biosecurity" (Ma)
ENTO 5044	"Insect Physiology" (staff) odd spring (combined with 5644)
ENTO 5644	"Insect Morphology" (staff) (combined with 5044)
ENTO 5700	"Teaching Practicum in Entomology" (1-6 credit hours; Staff)
ENTO 5710	"Advanced Medical and Veterinary Entomology" (1-6 credit hours; Noden) odd spring
ENTO 5870	"Scientific Presentations" (1 credit hour; Hoback) every spring

ENTO 6000	"Research"
ENTO 6100	"Advanced Insect Physiology (1-5 credit hours; not offered)"

PLP 2143	"Global Issues in Agricultural Biosecurity and Forensics" (Ochoa-Corona) odd spring
PLP 3663	"Turfgrass Integrated Pest Management" (Walker) odd spring
PLP 4400	"Special Topics" (1-3 credit hours - maximum 3; no graduate credit)
PLP 5000	"Research"
PLP 5304	"Phytobacteriology" (Fletcher and Ma) odd spring
PLP 5560	"Problems in Plant Pathology" (1-5 credit hours)
PLP 5560	"Human Pathogens on Produce" (1 credit hour; Ma) even fall
PLP 5560	"Problems in Plant Pathology: Plant Disease Epidemiology" (Melouk) every semester
PLP 5700	"Teaching Practicum in Plant Pathology" (1-6 credit hours; Staff)
PLP 5870	"Scientific Presentations" (1 credit hour; Hoback) every spring
PLP 6000	"Research"
PLP 6303	"Soilborne Diseases of Plants" (Garzon) odd spring

SUMMER 2021

ENTO 2003	"Insects and Society" (Hoback) WEB
ENTO 4400	"Honors Insects and Society" (Hoback; WEB)

Common Plan-of-Study (POS) Problems

- Not submitting a Plan-of-Study before the due date, necessitating a hold on the student's future enrollment.
- Master's Plan-of-Study must be received in the Graduate College before the end of the 2nd regular semester (summer sessions excluded) of graduate enrollment. Each master's student **must** electronically submit an official initial POS to the Graduate College.
- Doctoral Plan-of-Study must be received in the Graduate College before the end of the 3rd regular semester (summer sessions excluded) of graduate enrollment. Each doctoral student **must** electronically submit an official initial POS to the Graduate College.
- Using obsolete versions of all forms that are not online (e.g., Plan-of-Study; Committee Change Request; Graduation Clearance form; Admission to Doctoral Candidacy form). The Graduate College has the most current form versions on-line.
- Course prefix and/or number as written on the plan do not correspond to the transcript (of vital importance at Graduation time when the Registrar performs degree checks on students).
- Using the Plan-of-Study to change committee members. Use only the Committee Change Request form available at the website or as a handout at the reception area of the Graduate College.
- Adding additional research hours beyond the maximum allowed to a revised Plan-of-Study (5000 for master's; 6000 for doctoral) just because student needs to enroll in additional hours to maintain student status. List only the minimum hours needed to earn the degree. Additional hours taken not listed on the POS will be documented on official transcripts.

Six Main Reasons Students Fail to Graduate on Time

1. Lack of Graduation Clearance Form

A graduation clearance form must be submitted to the Graduate College by the appropriate deadline. The graduation clearance form must be on file before the diploma application can be submitted to the Registrar's Office.

2. Lack of Diploma Application

A diploma application must be on file with the Registrar's Office by the appropriate deadline. This can be done online through the Student Self-Service website, but only after the graduation clearance form has been processed in the Graduate College.

3. Plan-of-Study Deficiencies – courses on transcript do not exactly match those on POS

It is very important for students to review their Plan-of-Study and their transcript before submitting the graduation clearance form. If any revisions are needed, the updated POS should be submitted with the clearance form.

4. Grades Not Changed or Updated

Any incomplete grades for courses on the Plan-of-Study will delay graduation. Thesis and dissertation research hours do not need to be assigned a letter grade. The grade of "R" may be used for a creative component course, if the project extends beyond one semester. However, that grade must be changed to a valid letter grade before the degree can be awarded.

5. Insufficient Enrollment

Graduate students are required to be enrolled in a minimum of two credit hours during their graduating semester. All doctoral students and masters students completing a thesis or formal report are also required to be enrolled in a minimum of six credit hours total in the three semesters (including summers) preceding graduation.

6. Failure to Complete Thesis/Dissertation Submission

Uploading the thesis or dissertation document electronically does not equal being done with the submission. The Graduate College must have received the abstract and approval page. The submission must be reviewed and approved. All doctoral students must have completed the Survey of Earned Doctorates.

APPENDIX B: Miscellaneous Information & Requirements, Assistantships, Academic Standing, Health Insurance & the Student Health Clinic, Severe Weather, etc.

Assistance Contacts within the Department

There are people in the Department that can help you with your degree program. However, always first consult with your advisor.

Department Head

Dr. Phillip G. Mulder, Jr.
127 NRC
phil.mulder@okstate.edu

Graduate Program Coordinator

Dr. Justin Talley
127L NRC
justin.talley@okstate.edu

Unit Assistant

Ms. Sharon Hillock
127 NRC
sharon.hillock@okstate.edu

Entrance Requirements for Graduate Programs

The following courses should have been taken prior to acceptance into graduate programs in the Department of Entomology and Plant Pathology. A student may be admitted with deficiencies in these areas, but should take the courses and depending on the course may not receive credit toward their degree requirements. The courses required will be based on recommendation of their Advisory Committee.

For the MS Entomology Option

Introduction to Entomology - ENTO 2993 or an equivalent course.

For the MS Plant Pathology Option

An Introductory Plant Pathology course such as PLP 3343 or PLP 5343 - Principles of Plant Pathology

The following courses are suggested for students interested in graduate study in entomology or plant pathology.

1. Chemistry with lab (*three semesters, including at least one semester of Organic Chemistry*)
2. Introductory Biological Sciences with Lab (e.g., *Principles of Biology; Botany; Plant Biology; Microbiology; Zoology*)
3. Insect Physiology with lab or Plant Physiology with lab
4. A Plant Anatomy or Plant Taxonomy course
5. Genetics
6. Statistics, Algebra, and college Calculus
7. General Physics
8. Entomology

Note. The prerogative of the student's Graduate Committee to waive specific curriculum requirements for good cause **does not apply to Introductory Plant Pathology or Introduction to Entomology. If an appropriate course has not been successfully completed prior to admission, it must be taken during the student's graduate program at OSU.*

For the PhD Program

A Master's degree with a research thesis is required. The entrance requirements listed above also pertain to our PhD programs. In addition, the courses below are recommended for admission, subject to the same make-up policy, as those required for the MS.

1. Biochemistry
2. Ecology
3. Genetics
4. Statistics and/or Experimental design

Graduate College Time Limits

- All requirements must be completed within the following periods, calculated from initial enrollment date in the program.

Master's Candidates	7.0 years
Doctoral Candidates	9.0 years
- No course on the Plan-of-Study can be more than 10 years old at the time of graduation.
- Students must follow deadlines for submission of theses/dissertations and for completing final examinations as listed in the OSU catalog. Thesis and dissertation instructions located at <https://gradcollege.okstate.edu/tdg>

Financial Support - Graduate Assistantships

Students will be performing research duties as a Graduate Assistant under the direction of a major advisor for at least twenty (20) hours per week. The Graduate Assistantship appointment may be renewed subject to satisfactory progress toward a student's degree, satisfactory performance of assigned duties, and availability of sufficient funds. Financial support is provided by their advisor, the Department or other agency and students should view the Graduate Assistantship as a semi-professional position and are accountable for their performance. The purposes of assistantships are to support programs of instruction, research, and extension in the Department of Entomology and Plant Pathology and to provide employment opportunities that contribute to the professional development of graduate students. Available assistantships include:

- Graduate **Assistants** - MS students
- Graduate **Associates** - PhD students

Appointments are usually half-time (0.50 FTE) and graduate assistants or associates work twenty (20) hours per week. Time allocations may vary by assignment. Graduate assistants and associates are appointed for teaching, research, extension, or administration, and are expected to carry out their responsibilities in a professional manner. In addition to course and/or laboratory preparation and teaching/supervising, other responsibilities may include: grading papers, conferring with students, and regular conferences with the faculty in charge of the courses and laboratories. The nature of a half-time research appointment varies with the type and stage of development of the research project. The work assignment and schedule of the graduate assistant/associate will be subject to the approval of the faculty member(s) in charge and the Department Head. The graduate assistant/associate will be informed by the Department Head as to the starting and ending dates of the appointment for the semester. Graduate assistants are expected to enroll in a minimum of six (6) credits per fall/spring semester and a minimum of three (3) credits per summer semester. Those on half-time appointments may enroll in no more than ten (10) credits per semester. Graduate assistants enrolled full time (6 hours/semester) receive a waiver of out-of-state tuition. If for any reason the assistantship is terminated, the out-of-state tuition will be reinstated. Stipends earned as graduate assistants/associates in DASNR are considered to be earned income and are not eligible for tax exempt status.

Enrollment Requirements

- Graduate students must complete a minimum of 6 credit hours in a 12-month period to remain continuously enrolled.
- Failure to maintain continuous enrollment may require reapplication and readmission to the program.
- Graduate students must be enrolled in at least two credit hours during any semester in which they are utilizing University resources including the semester in which they graduate.
- Graduate Assistants must meet minimum enrollment requirements of 6 hours in fall and spring semesters and 2 credit hours in the summer. **If employed 0.50 FTE (20 hours/week) or greater, students enrolled in 6 hours in the fall and spring or 2 hours in the summer are considered full-time.** If employed less than 0.50 FTE, the student must enroll in 9 credit hours in fall and spring semesters and for at least 2 credit hours in the summer semester to be considered full-time.

- All students (including those enrolling in research hours only) must be enrolled by the deadlines listed in the Class Schedule.

Tuition Waiver for GRA / GTA

If you are a new student enrolling for fall semester 2016 or spring semester 2017 with a 0.50 FTE GRA or GTA, OSU will pay (waive tuition) for six-to-nine hours per semester (rarely up to a maximum of 12 hours in a semester). Exceeding 12 hours of tuition waivers in one semester for eligible courses in which you are enrolled in accordance with the requirements of your assistantship requires permission of the GC dean. **However, remember that there are maximum cumulative tuition waiver limits depending on your degree program. The credit hours waived for a master's degree student with research thesis is 30, and with the master's degree non-thesis option is 32. For PhD students holding an MS research degree, 60 hours are waived. For direct BS-to-PhD students, 90 hours are waived. Once you exceed your graduate program limits you become responsible for all further tuition costs and fees.** The Graduate College defines 2 graduate credit hours as a full-time graduate student for summer semester.

Your employment as a GRA continues through the summer semester and you must be enrolled for at least 2 graduate credit hours during summer semester(s). To receive this tuition benefit, and for a definition of "eligible courses," you must complete the "Tuition Waiver Agreement" (available in the Department Office) and submit a signed copy to the OSU Graduate College (202 Whitehurst Hall) as early as possible after you arrive at OSU, and each semester of your employment thereafter. Always retain a copy for yourself and the department.

Non-Resident Tuition Waivers

Graduate students (both domestic and international) who are not residents of Oklahoma are eligible for waiver of their non-resident tuition if they are employed as graduate research or teaching assistants and meet the following requirements:

- Graduate students must be employed as a monthly employee and their employment action (EA) forms must show one of the following codes. 1713, 1714, 1749, 1750, 1960 and 1990.
- Students must be employed at least 0.50 FTE (½ time) from the first day of class to the last day of final exams.
- Students must be enrolled full-time (i.e., at least 6 credit hours in the spring and the fall, and 2 credit hours in the summer). International students must be enrolled in nine credit hours (if employed 0.25 FTE), or in six credit hours (if employed 0.5 FTE).
- Students must be enrolled using their student identification number.
- Students granted tuition waivers for the spring are eligible to have non-resident tuition waived for the summer session.
- Please note that spouses of GAs, GRAs, and GTAs are also exempt from out-of-state tuition charges.
- To receive the tuition benefit, and for a definition of "eligible courses," all students must complete the "Tuition Waiver Agreement" (available in the Department Office) and submit a signed copy to the OSU Graduate College (202 Whitehurst Hall) as early as possible, and each semester of employment thereafter.

Graduate Student Health Insurance

Graduate students who hold at least a **0.25 FTE** graduate assistantship appointment are eligible for enrollment in a university-sponsored health insurance program. For more information, visit the OSU Graduate College internet site <https://uhs.okstate.edu/>. Students who receive health insurance during the spring semester do not need to maintain enrollment during the summer. Insurance coverage will be extended until the beginning of fall semester in August. The single-person health insurance premium is mostly paid on the student's behalf. If your plans do not include enrolling in the program, then inform the Department as soon as possible. Students should also review the statement from the Council of Graduate Schools concerning conditions associated with the acceptance of graduate assistantships which can be found at: <http://cgsnet.org>.

Academic Standing

A grade-point average (GPA) of “B” (3.00) or better is required to maintain good standing as a graduate student and more importantly, to meet the requirements for a graduate degree. Students receiving a grade lower than a “B” in a graduate course will receive a letter of warning from the Graduate College. The student’s Advisory Committee will meet to determine if the course should be repeated to obtain a higher grade. ***(If a student’s GPA drops below a 3.0, the student will be placed on Strict Academic Probation and will be required to earn at least a “B” in each course during the next semester of full-time enrollment, but **must** raise their GPA to 3.00 or higher).*** Failure to do so will result in academic suspension. Probationary status will not be removed until the GPA is raised above 3.0.

Students that are either admitted or placed on Strict Academic Probation because of low grades are not eligible for Departmental funded Graduate Research or Teaching Assistantships until the probationary status is removed. If a student on an assistantship is placed on academic probation, he/she will be allowed one semester to remove their probationary status. After this period the stipend will be withheld until the probationary status is removed.

Please note that a student must have a “B” grade or above average (≥ 3.00) in all courses on the Plan-of-Study, and also a Satisfactory Research (SR) grade in thesis or dissertation, or a “B” grade or better for a Report or Creative Component option. After a student has completed a course, it cannot be dropped from the Plan-of-Study because of a low grade unless the change is first approved by the student’s major advisor, the Department Head, and then by the dean of the Graduate College. Failure to maintain adequate progress toward completion of the graduate degree (as determined by the Advisory Committee) is grounds for dismissal.

Any significant breach of scientific ethics (e.g., falsifying data, or plagiarism) by the student may result in immediate dismissal of the student following due process (as defined by university regulations).

Please note that any course taken under the Pass-No Pass grading system (“P” or “NP”) is acceptable on a Plan-of-Study only under very unusual circumstances and is generally deemed not acceptable.

For incomplete course work, a default grade of “I” will be assigned. This default grade will be the grade given the student should they not finish any incomplete work prior to one year from the assignment of the “I” grade.

Health Insurance/ Student Health Clinic

The Student Health Clinic is located at 1202 W. Farm Road, just west of the Noble Research Center. There is a walk-in clinic with physicians, physician assistants, and nurses on staff. Women’s gynecological services, immunizations, allergy injections, laboratory, radiology, and counseling services are all available on site at the clinic. Office visits are low cost with additional costs for other services. For more information see <http://www.okstate.edu/UHS/>. Other health service options include the Emergency Room at Stillwater Health Center (Stillwater’s full service hospital), Warren Clinic, Family Health Centers, Stillwater Women’s Clinic, the Department for Human Services, and numerous private physicians.

Campus Map

See <http://geosys.okstate.edu/interactive-maps/campus-map.aspx> for a map of campus.

Parking Permits

Parking permits may be purchased to park cars in student, commuter, or overflow lots which are usually located on campus, but approximately ½ mile from Noble Research Center. There is a charge for all parking permits. Bicycles also require a permit. See <http://www.parking.okstate.edu/> to apply for a permit.

Housing

There are many options for graduate student housing in Stillwater. Many students rent or share apartments in nearby complexes. Others rent or buy houses in Stillwater neighborhoods. A popular choice for students is rental of a university apartment, for which several neighborhoods are located on campus and within walking distance of Noble Research Center. University apartments are usually furnished and include utilities in the rental fee. A roommate finding service is available to match students who wish to share an apartment. For more information see <http://reslife.okstate.edu/fgsh/>

International Students and Scholars (ISS)

ISS office is located in the Student Union (room 250). It is staffed by friendly people who are there to assist international students and scholars with a variety of issues:

- Pre-arrival forms and applications
- Help with transportation to Stillwater
- 'Settling In' assistance after arriving in Stillwater
- Advising on university policies, immigration regulations, and financial matters
- Process immigration forms
- Issue work clearances
- Facilitate cultural connections between Departments, Student Organizations, and Community Organizations

For many international students, a visit to ISS is one of the first priorities after arriving at OSU. See website: <http://iss.okstate.edu>.

Community and Transit Bus Service

A Stillwater-wide bus service is available to assist students who live off campus or must park in overflow parking lots. There are several bus lines which travel to many areas of the city of Stillwater, including both Wal Mart locations and downtown. OSU students with an ID ride free. For more information about this bus service, to <https://parking.okstate.edu/transit-services>. Bus transportation to the OSU campus in Tulsa also is available. For more information, go to <https://shuttle.okstate.edu>.

Temporary Housing after Arrival

Most students have already made arrangements for housing before they arrive, but if temporary housing is needed, it is possible to arrange a temporary stay in one of the dormitories. Contact University Residence Halls at <https://temp-residentiallife.okstate.edu>.

Stillwater

Stillwater is a small-sized city of approximately 50,000 people located 70 miles east of Tulsa and 65 miles north of Oklahoma City. Its relative small size lends itself to easy movement around town. There are several restaurants featuring many types of cuisine, including barbecue, Mexican, Thai, Chinese, Japanese, American style delis and family dining, and popular student hangouts. Shopping is easily accomplished, but if it cannot be found in Stillwater, it is an easy drive to one of the two metropolitan areas, Tulsa or Oklahoma City, to obtain what is needed. There is one large movie cinema and a nearby lake recreational area. Stillwater is an easy and friendly community to live in, with good schools, safe neighborhoods, and an accessible university campus. For more information about the Stillwater community, visit <http://www.stillwaterchamber.org/>

Emergency and Weather Preparedness

Frequently in Oklahoma weather conditions can become severe. Severe weather can occur anytime but typically the chances for severe weather are greatest from April through June. It is advised that during periods when severe weather is forecasted that you stay aware of the conditions. If severe weather is anticipated, sirens around the city of Stillwater will sound (testing of sirens occurs every Tuesday at 11:30 a.m.) and you should seek shelter. We are aware that the sirens cannot be heard in most laboratories in the building and a supplemental air horn maybe discharge to alert you to seek shelter. In the Noble Research Center you should proceed to the central stairwell located between the plant pathology wing and the front/library facing wing of the building. If you are home and have sufficient time to get to campus but not the Noble Research Center, you should go to Ag Hall, Engineering South, or the Student Union.

APPENDIX C: Alternative Graduate Degree Programs in Ento/Plp

ALTERNATIVE GRADUATE DEGREE PROGRAMS

The primary goal of the Department of Entomology and Plant Pathology Graduate Programs is to offer MS- and PhD-level research degrees. Requirements for these degrees are discussed earlier in this Handbook. However, under exceptional and rare circumstances the Department will also consider allowing the following alternative degree programs:

Direct BS-to-PhD Program (Entomology or Plant Pathology Option)

Students who are interested in this program and hold a BS degree must first enter a research thesis MS degree program. After completing at least two semesters of graduate study, and with the approval of their Major Professor and Advisory Committee, the student may submit a request to the Department Head to enter a direct BS-to-PhD program. Graduate students desiring to convert to the direct BS-to-PhD program are required to take a 'Direct Degree Assessment Departmental Qualifying Examination.' This examination consists of two components: 1) a closed book, written question component with answers submitted to and graded by all Committee members plus Departmental faculty from whom the student has taken courses and, 2) an oral component with the same Committee members and appropriate Departmental faculty participating. The examination will encompass previous course work and research.

This qualifying examination provides an overall evaluation of the student's potential for immediately pursuing PhD-level work. Deliberation of exam performance and voting to 'pass' or 'not pass' the candidate includes all faculty members who participated in the exam. Upon passing, the student will bypass the MS program and advance directly into the PhD program. Any additional Committee members required to complete the student's PhD Advisory Committee are added at that time. The Graduate College is also provided a revised Plan-of-Study. If the student does not pass the qualifying examination there is no penalty or negative connotation, and the student remains in his or her MS program.

Although MS thesis research is circumvented by entering into this direct program, all course requirements for the MS degree must be completed in addition to PhD requirements during accomplishment of the direct BS-to-PhD plan-of-study designated in this program. **PLEASE NOTE** – switching from a MS to a PhD program requires a new application to the Graduate College with the accompanying requirements and fees. For more information regarding this, talk to the Department Graduate Coordinator.

Summary of Provisions:

1. During the first year of graduate enrollment in the Department, the decision to seek approval for a direct degree program is jointly made by the student and his/her Major Professor and Advisory Committee.
2. The student must have maintained a minimum 3.00 GPA in courses taken during his / her graduate enrollment in the Department, with no more than one 'C' earned during their graduate course work.
3. The student must submit a Research Proposal that provides a review of relevant literature, and that clearly outlines the research studies that will be completed for the PhD degree. The student's Graduate Advisory Committee must approve this Proposal. The finalized Proposal is expected to be completed and approved within the first two regular semesters of entering the PhD program.
4. The student must complete a 'Direct Degree Assessment Departmental Qualifying Examination' that encompasses both written and oral components. This examination is administered by members of the student's Graduate Advisory Committee and by other Departmental faculty who have instructed in courses taken by the student during his/her first year of graduate enrollment at Oklahoma State University.
5. The final decision for approval of a student for the direct BS-to-PhD program is made by the Department Head in consultation with the student's Graduate Advisory Committee. Criteria for approval include review of the academic record and the completed PhD Research Protocol, and results of the Qualifying Examination.
6. Upon approval, a maximum of six completed 5000-level research hours can be credited toward the PhD degree.

7. Although funding for Departmental assistantships may be made available to students enrolled in direct degree programs, the Department cannot guarantee funding for the normal five-year duration of this degree program.
8. An application to the Graduate College will be required to make the BS-to-PhD switch.
9. Should a student be accepted into the direct BS-to-PhD program but not complete the PhD Degree, the student may be able to be awarded an MS Degree after completing all MS requirements.

Course Requirements for Completion of a Direct BS-to-PhD Plan-of-Study

Course requirements for students completing this direct program include the following within the minimum 90 credit hours for the degree:

1. All students (both Entomology and Plant Pathology) must complete both
 ENTO/PLP 5623- Advanced Biotechnology Methods, and
 ENTO/PLP 5524- Integrated Management of Insect Pests and Pathogens
2. All students must complete **2** credit hours of ENTO / PLP 5870 – Scientific Presentations (1 credit hour each for a fall and a spring semester)
3. The PhD Plan-of-Study may include **no more than 36** credit hours of ENTO 6000 or PLP 6000. In addition, six 5000-level credit hours completed as an MS student can be included on the PhD POS.
4. In addition to the requirements stated above, **Entomology** students are required to complete the following courses:
 ENTO 4464 – Insect Biology and Classification
 ENTO 5003 - Insect Biochemistry
 ENTO 5044 - Insect Physiology
5. In addition to the requirements stated above, **Plant Pathology** students are required to complete the following courses:
 PLP 5343 - Principles of Phytopathology (students w/out Introductory Plant Pathology)
 PLP 5724 – Physiology of Host-Pathogen Interactions
 PLP 5104 – Mycology

Pathogen Courses (must take at least two)

- PLP 5003 - Plant Nematology
- PLP 5012 - Plant Virology Laboratory
- PLP 5304 – Phytobacteriology

Concepts Courses (must take both)

- ENTO/PLP 5613 - Host Plant Resistance
- PLP 6303 - Soilborne Diseases of Plants

Dual MS Degree. The Graduate Faculty Council has established a policy for students to pursue dual MS degrees. Students may use up to nine (9) overlapping credit hours on two different Master’s degree plans-of-study. These overlapping hours cannot include the research component of either degree program.

Master’s Degree Non-Thesis (Three Plans)

The programs listed below are not primarily research-oriented and are considered terminal degrees. Students electing these programs are not expected to pursue a PhD degree. Students who intend to earn a PhD should follow the regular Master of Science research thesis degree program, not a non-thesis MS or MAG degree program.

Plan I: REPORT (MS - Entomology or Plant Pathology Option)

Thirty-two (32) credit hours including a Research Report are required. The student must complete all course work listed under the standard Entomology or Plant Pathology MS, plus complete an additional two hours of ENTO/PLP 5000 in place of a thesis. Under the guidelines of Plan I, the student is required to prepare a report as described in the Graduate College Style Manual (available at the Graduate College), and to submit their report to all members of his/her Advisory Committee for approval. Passing a final examination is also required to complete this program.

Plan II: CREATIVE COMPONENT (MS - Entomology or Plant Pathology Option)

Thirty-two (32) credit hours of coursework that include a Creative Component (in place of a report) are required. The Creative Component may be a special report, annotated bibliography, research project, or other creative activity agreed upon by the student and their Advisory Committee. If the student's committee initiates Plan II, the Major Advisor will notify the Dean of the Graduate College when the student has satisfactorily completed all Departmental requirements. It is at the discretion of the Department and the Advisory Committee whether to require a final oral and/or written exam. The student will be notified at least 90-days prior to such an exam(s). Forms for arranging an exam can be obtained from the Graduate College. **Note.** ENT0 5000 or PLP 5000 credit hours cannot be used for this POS.

Plan III. MASTER of AGRICULTURE (MAG - Entomology or Plant Pathology Option)

A non-thesis POS leading to a Master of Agriculture degree is intended for students who desire a broader program with emphasis in non-research areas and additional specialization in technical fields. This degree can require up to 36 graduate credit hours to complete (Minimum 32 credit hours with a research report. Minimum 36 credit hours for the 'creative component, or 'internship' option).

Character of Program. This program will provide a greater breadth of study than the Master of Science program. Emphasis is given to practical application of the technical aspects of the discipline as well as discipline interrelationships. In some areas of specialization the focus is on an applied research concept and a broader program of study than is normally available with the specialized research degree.

Admission Requirements. A baccalaureate degree in agriculture or a related field is required for admission. The candidate must meet requirements for acceptance into the Graduate College and be recommended by the departmental graduate committee responsible for the program.

Degree Requirements. Each candidate approved for study under this program will be assigned an adviser and advisory committee with whom he or she will develop a Plan-of-Study in accordance with guidelines established by the department. A preliminary Plan-of-Study must be approved by the Office of the Associate Dean for Academic Programs and must be filed in the Graduate College Office prior to the end of the 2nd semester of enrollment. Departmental comprehensive final examinations are required of all Master of Agriculture candidates.

MAG Degree Option Requirements.

Option A. A total of **32** approved semester graduate credit hours of work, including an approved research report having a credit hour value of not more than two credit hours, is required.

Option B. A total of **36** approved semester graduate credit hours of work is required and must contain a creative component. No report is required.

Option C. A total of **36** approved semester graduate credit hours of work, including six hours of credit for a professional internship are required. The internship includes professional practice and a report.

APPENDIX D: Dismissal from Graduate Programs & Appeals Processes

Graduate students may be dismissed from their program for failure to meet academic standards, or for other compelling reasons such as academic or personal misconduct. In such rare instances, the student(s) will be notified of the intent to dismiss and informed of their rights of due process and appeal. If a student appeals the decision to dismiss, during the appeals process the student must be allowed to maintain enrollment and continue working toward their graduate degree in the same manner as any other EPP graduate student. However, continued enrollment is not required to appeal. Once the decision of the appropriate appeals panel is made, if the decision is not satisfactory to the student, further appeals can be made to the Department Head, and thence to the Dean of the Graduate College if necessary.

The Graduate College Section in the OSU Catalog describes “Academic Standing” requirements. These requirements include “Minimum Grade Requirements”; “Academic Probation”; “No Further Enrollment”; “Course Grade Appeals”; Appeals of Research Grades and Non-grade issues”; Advisory Committee Decisions-Criteria for Passing”; and “Discontinuance from a Program”. Consult the “Academic Standing” section. If you are having difficulty progressing in your graduate program, immediately discuss your situation with your Major Professor/Advisor and Committee to remedy any problems before they disrupt or end your program. It is imperative that a GPA of ≥ 3.00 is achieved at all times, and that your Committee agrees that satisfactory continuous progress is ongoing with your Research project. A ‘D’ or lower grade, or UR (unsatisfactory research progress) grade, do not count towards a graduate degree, and can lead to dismissal from the graduate program.

Deadlines: Unless stated otherwise, all deadlines are by 5:00 pm Central time on the day of a deadline, or the next regular business day (Monday–Friday) when the deadline falls on a weekend (Saturday–Sunday) or OSU official holiday, such as Labor Day. Time frames and deadlines that extend beyond the end of an academic term (fall, spring semesters and summer sessions) are determined at the discretion of the Dept. Graduate Program Coordinator.

Appeals. The purpose of this process is to provide current EPP graduate students the opportunity to resolve complaints about dismissal from their program, placement on probation, recommended denial of readmission to the program, and other administrative or academic decisions that terminate or impede a student’s progress toward their degree goals. For more information, see: https://gradcollege.okstate.edu/sites/default/files/appeals_policy.pdf