

Graduate Handbook
Entomology and Nematology
Department

Revised by:

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and

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32nd Edition
2025

Welcome to UF Entomology & Nematology!

We are excited to have you join one of the largest and most vibrant communities of entomologists and nematologists in the country! We are happy you have chosen us for the next chapter in your academic career and look forward to helping you in your academic and professional development.

Our department is large—we currently have about 80 faculty members, more than 100 graduate students, and dozens of postdoctoral researchers. About half of us are based in Gainesville; half are based in the 11 Research and Education Centers (RECs) located throughout the state of Florida. The expertise of these faculty is equally vast, covering topics ranging from control of nematodes, to invasive pest distribution modeling, to the discovery of new species. While this provides many opportunities and a deep well of expertise, it might also feel a little overwhelming. Your faculty mentors and fellow lab mates will play a key role in your graduate experience, and I encourage you to find community with our ENY graduate students and other local groups. Making connections is key to getting the most out of your time here and we encourage you to take advantage of the people resources available here and build out both your personal and professional networks.

The University of Florida is an incredible place to be a graduate student, and the Entomology and Nematology department is THE most incredible place to establish your career foundations. Thank you for entrusting us with this stage of your education! We hope you will take advantage of the deep well of academic and professional development resources available to you during your graduate program. Beyond your coursework and research, you will find that engaging in professional development opportunities will help you to advance your career. Similarly, we hope you will seize the opportunity to share your knowledge as you hone your teaching skills and present your expertise at professional conferences and outreach events. If there are particular career skills you hope to develop, we can help! Please don't hesitate to reach out to us. Our excellent graduate coordinator and graduate advisors also will play key roles in your journey, so we encourage you to be in touch with them if and when you need assistance. Remember, we are here to support you.

Finally, don't forget to take advantage of the state's the natural beauty and enjoy the springs, beaches, forests, and botanical gardens, as well as the historical and cultural treasures to be found in urban hubs and rural areas. Whether you are a Floridian already or are starting or continuing your graduate school journey, we know the opportunities you embrace here will expand your horizons in research, teaching, outreach, and leadership.

We welcome you to our program and look forward to seeing your successes!

With Best Wishes,

Andrew Short, Chair & Professor

Andrea Lucky, Associate Chair of Academic Programs & Associate Professor

PREFACE

This handbook provides information for graduate students and faculty on the policies and requirements of the Entomology and Nematology Department and the College of Agricultural and Life Sciences (CALS). It also includes information related to the requirements of the Florida Board of Education, the University of Florida Board of Trustees, and the University of Florida. This handbook serves as a companion to The University of Florida's Graduate Student Handbook, published annually by the Graduate School.

The department's handbook does not replace the Graduate School Catalog, which contains the official information concerning UF rules, regulations, course descriptions, degree requirements, etc.

Students-you are ultimately responsible for staying informed and on track in your academic program. Faculty and staff are here to assist you in meeting all your academic requirements and milestones, but you must take responsibility for making timely progress toward completing your degree

This is the 32nd edition of the Graduate Handbook. Much of the information in previous editions was compiled and written by former graduate coordinators, especially by the late Dr. Stratton H. Kerr, Dr. John R. Strayer, the late Dr. Grover C. Smart, Dr. Donald W. Hall, and Dr. Heather McAuslane.

The first graduate coordinator in this department was Dr. Vernon G. Perry, who served (dates not known) under Department Chair Dr. W.G. Eden. Dr. Perry was followed by Dr. Thomas J. Walker (1975-1976), the late Dr. Stratton H. Kerr (1976-1988), Dr. John R. Strayer (1988-1993), the late Dr. Armen Charles Tarjan (1993-1996), the late Dr. Grover C. Smart, Jr. (1997-2003), Dr. Donald W. Hall (2003- 2008), Dr. Heather McAuslane (2009- 2021) and Dr. Andrea Lucky (2021- 2023).

We are indebted to the faculty who served on the Graduate Programs Committee and the Graduate Recruitment and Admissions Committee for improving the handbook. Current members of these committees are, respectively, Drs. Lindsay Campbell, Zane Grabau, Cameron Jack, and Carey Minter and Drs. Ted Burgess, Eric Caragata, , Oscar Liburd, and De-Fen Mou. In addition to suggesting improvements to the hand-book, members of these committees play a prominent role in admitting students, awarding scholarships and awards, and formulating graduate policies.

I am honored to serve as your graduate coordinator. Please contact me if I can be of assistance in any way.

With best wishes,
Marc Branham
Graduate Coordinator
June 2025

Graduate Student Rights and Responsibilities

Graduate students on assistantship are represented by the [Graduate Assistants United](#) union. The UF Graduate Assistants Union contract describes your rights and responsibilities. Graduate assistants are responsible for assigned duties from either their research advisor or the Graduate Coordinator, depending on the source of financial support. This assigned work will be specified in the initial letter of appointment and may be in addition to work done on a student's own research. Research advisors may set specific work hours for the assigned work. Students, including those on fellowships or with other sources of support, may have responsibilities for colony maintenance or other tasks with other students or technical support staff in their advisors' laboratories that are required for the mutual success of their and their advisors' research projects. Graduate study is a time-intensive commitment and may include evening and/or weekend obligations. Students are committed, outside of their assistantship duties, to classes, research, seminars, and service. Students must make arrangements with their faculty advisors for any changes to this requirement or any absences -- including those during university holidays. Please carefully read the University leave policy which is found in Section 8 of the https://www.ufgau.org/uploads/6/4/6/7/64675501/cba_21-23.pdf between the University of Florida Board of Trustees and Graduate Assistants United 201721--202023.

Further helpful information, including grievance procedures, can be found at the [Dean of Students' Office](#) web site.

Helping Resources

Graduate school can be a stressful, and exciting, time in a student's life. We can direct you to resources to help you deal with issues that are concerning you and impeding your success in graduate school. We can help you figure out what your next step is after graduate school! Feel free to talk to our Graduate Advisor, Elena Alyanaya, or to Dr. Branham for advice on how to get the most out of your Entomology & Nematology graduate student experience, and also to look into these resources.

- [U Matter/We Care](#)
- [Career Connections Center](#)
- Graduate School [Student Life](#)
- Graduate School [Health and Safety](#)
- Graduate School [Spouse and Family Resources](#)
- [UF Student Legal Services](#)

Discrimination and Bias

Our department has zero tolerance for discrimination or bias against any individual or group. There are established methods recommended by UF and [IFAS Human Resources](#) for reporting instances of bias, discrimination, or harassment. They are described [here](#) and [here](#). The person who has been harmed may seek an informal resolution by speaking directly to their supervisor or, if their supervisor is the source of their complaint or concern, to their supervisor's supervisor. Students should talk to the Graduate Coordinator or department chairperson for guidance. If an informal resolution is not possible, the harmed person should contact IFAS HR or the appropriate office listed at the web link above with a request to investigate the concern informally or formally. There is also an option for anonymous reporting using a [third party client](#).

This is an anonymous suggestion/comments box for members of the Entomology & Nematology department to voice concerns about issues within the department and to provide suggestions for change. This comment box can be used to voice concerns about climate and experience in the department when issues may not need to be formally addressed and individuals wish to remain anonymous. This vehicle for feedback is also a place to make suggestions for changes in practices, policies, and procedures surrounding our departmental missions of research, teaching and extension.

Academic Honesty, Plagiarism, and Responsible Conduct of Research

[Please read the student honor and conduct code in its entirety. All students must adhere to this code.](#)

Plagiarism is a serious problem in academia today. Plagiarism is defined as representing the words or ideas of another person as one's own, without attribution to the source. All words and ideas must be attributed to a source unless they are considered common knowledge (i.e., widely known by many people and found in many different sources). There are many kinds of plagiarism. One of the most common forms is insufficient paraphrasing. Even with attribution, you may be guilty of insufficient paraphrasing because your sentence too closely follows the content and structure of the cited author's sentence. In some countries, it is an acceptable practice to write in a manner that faculty members at the University of Florida consider being plagiarism. Students studying in our university and with plans to publish their research in the English language need to know what plagiarism is and how to avoid it. Please look at this reference to learn about ways to avoid plagiarism. https://gradadvance.graduateschool.ufl.edu/media/gradadvancegraduateschoolufl.edu/OGPD_Plagiarism_Workshop_20221019.pdf

Responsible Conduct of Research involves properly handling data, including its collection, storage, management, sharing, and authorship attribution. Any falsification of data, including changing or falsely generating names, dates, measurements, etc., are unethical. To learn more about acceptable research practices, see these UF Graduate School resources: <https://gradadvance.graduateschool.ufl.edu/competencies>.

Both plagiarism and unethical conduct of research are unethical, unacceptable in science, and prohibited by the UF Student Honor Code. The consequences for violating the student honor code while at the University of Florida range from receiving a grade of zero for a plagiarized or falsified assignment or a failing grade for the course to, for repeated offenses, expulsion from the university. These unethical practices call into question one's scientific integrity and can lead to banning of publication in journals and the loss of jobs/careers.

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GRADUATE STUDENT CHECKLIST
PLEASE READ CAREFULLY

NOTE: The student is responsible for fulfilling all academic requirements and meeting all deadlines. Many of the forms you need are posted on our website and additional information for enrolled students and their supervisors can be found on the Canvas Advising Hub. Check these first before reaching out to Elena Alyanaya, graduate program advisor (elalyanaya@ufl.edu, 352-273-3903, Steinmetz Hall Room 1028).

| REQUIREMENT | WHAT / WHEN / WHERE |
|---|--|
| __ 1. Attend ENY orientation or meet with Graduate Advisor or Coordinator | A required ENY Orientation is scheduled for the week before classes begin each Fall and Spring semester |
| __ 2. Review Canvas Advising Hub and Schedule of Courses online | Upon acceptance to UF |
| __ 3. New Students: Attend Graduate School and International Student orientation sessions | You have been notified of date, time and place. |
| __ 4. Complete payroll and appointment forms for an assistantship, if appropriate | By appointment with your REC Human Resources staff member In GNV - Glinda Burnett gburnett@ufl.edu (273-3904) |
| __ 5. Student ID card (Gator 1) | Upon arrival - Reitz Union Welcome Center. REC students may apply online https://businessservices.ufl.edu/services/gator-1-card/gator-1-card-homepage/ |
| __ 6. Parking permit | Upon arrival - Traffic and Parking Building Student Permits -TAPS |
| __ 7. Key to building and your lab | Upon arrival - See office staff (GNV: Cheryl Johns) |
| __ 8. Have picture taken for the bulletin board display ENY Grad Student | GNV: Graphics Department, Rm. 1023; RECs: please send a high-quality professional photo to the Graduate Advisor. |
| __ 9. Meet with major professor to determine courses to take the first semester | Before arrival, as soon as admitted |
| __ 10. Register | Online at one.ufl (Late registration fee is \$100.00; Late payment fee is \$100.00) |
| __ 11. Sexual Assault Prevention for Graduates course, Required | https://ufhealth.org/sexual-assault-prevention ; Required by UF during your first semester |
| __ 12. First committee meeting | Completed no later than end of second semester; email approved committee agreement form to Student Services (Appendix E or at our web-site). Upload Supervisory Committee Agreement in the Advising Hub |
| __ 13. Ph.D. students: request for possible transfer of up to 30 credits from M.S. degree | Contact Student Services; must be done the first semester enrolled; official M.S. final transcript must be provided to UF Admissions Office (may take up to one year to transfer) |
| __ 14. Program of study | Meet with committee to complete no later than end of the second semester; email approved program of study to Student Services (Appendix F or at our website) and Upload to the Advising Hub |
| __ 15. Complete Individual Development Plan (Ph.D. only) annually | Last page due to Student Services by August 1 each year |
| __ 16. Oral and written research proposal | M.S. students by end of the 2nd semester; Ph.D. students by 2nd -4th semester and at least one full semester prior to qualifying exam; written proposal in PDF form must be submitted to supervisory committee and Student Services at least 10 days prior to oral presentation; contact Student Services for room reservation for oral presentation & Zoom link should be set up and send to Elena. Research Proposal Assessment due to Elena after the presentation. Upload the proposal in the Advising Hub |

| | |
|--|---|
| __ 17. Semester Evaluation and new Letters of Appointment (LOA) | Prior to the end of each semester; the student and committee chair must complete and sign two forms: 1) Semester Evaluation (Appendix G or at our website), to be sent to the academic assistant and 2) new LOA to be sent to HR, or (in GNV, Glinda Burnett). |
| __ 18. Ph.D. qualifying exam; written and oral | Should be completed no later than the 3rd to 5th semester of graduate study beyond M.S.; arrange date and time with supervisory committee as early as possible; provide Student Services with title, date, and time at least 10 days prior to date using form at our website. Reserve room with Student Services. Submit signed PhD Qualifying Exam Assessment form to the academic assistant after the exam. |
| __ 19. Admission to candidacy for Ph.D. | Form submitted to Graduate School upon satisfactory completion of oral qualifying exam |
| __ 20. Registration for Doctoral Research | Research credit, ENY 7980 or NEM 7980 may be used only after qualifying exam has been passed |
| __ 21. Review of guide for Preparation of Thesis and Dissertation | On the web at: Thesis, Dissertation, & Publication - Graduate Student Success - University of Florida |
| __ 22. Application for Degree | Check degree application deadline; must apply for degree each term you expect to graduate. Usually first 2 weeks of semester. Refer to the UF Canvas Advising Hub "Preparing for Your Final Semester" module. |
| __ 23. M.S. department defense deadline | Provide your committee members your thesis 2 weeks before you plan to defend. Check graduate school deadlines for defense. Thesis, Dissertation, & Publication - Graduate Student Success - University of Florida |
| __ 24. First submission of thesis or dissertation to the Graduate School | See "DEADLINES" for each submission of your thesis or dissertation; Thesis, Dissertation, & Publication - Graduate Student Success - University of Florida |
| __ 25. Dissertation/thesis defense and M.S. final exam | Arrange date with all committee members as early as possible; give the title, date and time to Student Service and have Student Services reserve room at least 10 days prior to defense. M.S. Final Exam Assessment and M.S. Final Defense and Thesis Assessment due. PhD Final Defense and Dissertation Assessment due. |
| __ 26. Exit seminar: Required of all M.S. with thesis and PhD | Given the term of graduation one hour prior to final exam; reserve room/Zoom with Student Services, Rm. 1028 |
| __ 27. Submission of final copy of thesis or dissertation to ENY | Provide Graduate Coordinator's office with a final copy of thesis or dissertation prior to graduation, in a pdf format |
| __ 28. Exit interview with department chairperson and exit survey | Andrew.short@ufl.edu 352-273-3970; exit survey form via Qualtrics |
| __ 29. *Return all keys issued by the department | As soon as possible, to Cheryl Johns |

*Return of Stockroom items and keys will be verified before departmental certification of degree.

ADMISSION

The Entomology and Nematology Department encourages inquiries and applications from all qualified students. In order to access information about our department including the faculty, student body and courses taught, prospective students are encouraged to visit the department's web site at: <http://entnemdept.ifas.ufl.edu/>

Prospective students must apply online, by visiting the University of Florida web site where information is available to guide the student through the application process. The \$30.00 application fee and residency form must be submitted before the department may review the application.

<http://www.admissions.ufl.edu/apply/graduate>

To be admitted to the Graduate School, the student must have earned a bachelor's degree from an accredited college or university and have obtained at least a 3.0 GPA (upper division GPA). The Entomology and Nematology Department does not require an undergraduate major in entomology, nematology, or biology as a condition of admission; however, if the bachelor's degree is in a non-science field, it should be supplemented with the following coursework:

- one year of general biology (2 semesters)
- at least one semester of general chemistry
- algebra and trigonometry
- at least one semester of physics (recommended)
- introductory statistics (recommended)

Applicants must provide the Office of Admissions with ELECTRONIC official transcripts of all previous college and/or university studies and official TOEFL or IELTS (if applicable) scores submitted directly from the educational testing service (University Code: 5812, Dept. Code: 0209). If the transcripts and diploma or degree certificate are not in English, certified copies of English translations must be included. UF accepts electronic transcripts through FASTER, Parchment, National Student Clearing House, ScribbleSoft, e-Scrip Safe, Credential Solutions, SCOIR or Transcripts Plus. The email address for electronic transcripts is te@admissions.ufl.edu.

Our department requires the following documents; which should be included in your online application: (a) a 1-2 page Statement of Purpose written by the student, which should indicate previous training and experience, interests, and educational and career goals as an entomologist or nematologist; (b) three letters of recommendation from persons in a position to evaluate the student's academic and professional potential; (c) copies of transcripts with degree statement (photocopies are satisfactory); (d) curriculum vita, and (e) a letter of support of an ENY Faculty member willing to serve as the student's major advisor (see below). This letter of support does NOT count as one of the 3 required letters of recommendations.

Faculty support letter. Each prospective student must have the written support of a faculty member who will serve as their major advisor and provide a research opportunity, which may include an assistantship. Students are expected to contact faculty members directly. We do not review application documents for graduate study until students have the commitment of a faculty advisor and until the source of funding is known. The faculty member must provide a UF Faculty Support letter to the Graduate Coordinator's Office confirming commitment to supervising the student, detailing source and duration of funding, and outlining a mentoring plan. The total number of letters required is four.

Our Graduate Recruitment and Admissions Committee, chaired by the Graduate Coordinator, decides if a student is accepted into our program, not the University. If a student is denied acceptance by our Graduate Committee and wishes to appeal the decision, the Department Chairperson and the Associate Chair for Academic Programs serve as an appeals committee. Their decision is final. For various reasons we may not be able to

accept everyone who meets the minimum requirements. Alternatively, we may accept a prospective student who does not meet all of the minimum requirements if exceptional strength is shown in a particular area. For example, if the undergraduate GPA is below the minimum, and if strength is demonstrated in other areas of the application, we have the option, subject to approval by the Graduate School, of accepting a student on a conditional basis. Conditional admission usually requires that the student make at least a B average in the first semester of registration, with no I, U, NG, or W grades.

Note regarding UF MS students applying for the PhD.

Admission to the Ph.D. program after completing an M.S. program at UF is not automatically granted. Although a finishing UF MS student does not usually need to submit a new application for admission to the UF Graduate School, the student must notify the Graduate Coordinator of their interest in continuation to the PhD. All PhD application materials must be submitted to Graduate Coordinator: a new Statement of Purpose, UF (unofficial) transcripts, etc. In addition to the required PhD Supervisor letter of support, three letters of recommendation are required and one must be from the student's MS advisor, evaluating the academic ability of the student to complete the Ph.D. program successfully. Two additional letters of recommendation are required, making three recommendation letters in total, plus one supervisory letter. (Note: If the MS and PhD Supervisor are the same individual, all information may be included in the supervisory letter, and only two additional recommendation letters are required). These letters, along with the original application documents for the M.S. degree, will be circulated to the Graduate Committee for a vote on acceptance.

For international students whose language of academic instruction is not English, the Graduate School requires a minimum score of 550 on the paper-based TOEFL, 213 on the computer-based TOEFL, 80 on the internet-based TOEFL, or 6.5 on the IELTS. Additionally, international students must certify financial responsibility as stipulated in the documents obtained from the University of Florida International Center web site. Financial support may come from the student's government, a granting agency, personal funds, or from a faculty member. The Certification of Financial Responsibility form must be submitted to the International Center before an I-20 can be issued.

Direct Admission to the Ph.D. Program (without M.S. degree) or with a non-thesis or online M.S. degree is rare and must be justified.

Only the most academically talented and accomplished students will be considered for acceptance into the research-intensive Ph.D. program without first completing the M.S. (thesis) degree. We believe that the M.S. degree is very good training for research and should not be bypassed, except in exceptional circumstances.

- The following academic and research achievements are highly recommended in order to be considered for direct admission to the Ph.D. program:
 1. Undergraduate GPA of at least 3.5
 2. In lieu of an M.S. thesis, students must document significant research-related activities and a solid understanding of the scientific process. Documentation should include multiple examples from the following categories: undergraduate thesis, student-led peer-reviewed and published paper(s), and oral or poster presentations at scientific meetings, and/or professional experience including conducting and evaluating independent research.
- Applicants should provide a clear and focused [statement of purpose](#) (i.e., letter of intent; personal statement). This should address the rationale for pursuing doctoral study without first completing a master's degree, the area in which they wish to specialize, their professional goals and how graduate study will help them accomplish those goals, and their particular qualities and experience that make them a good fit for the department research program that they are hoping to join.
- 3 Letter(s) of recommendation from former academic and/or research supervisor(s) must be detailed and strong, indicating ability of the student to proceed to and succeed in the doctoral program without an in-person, thesis-based master's degree

- Letter of support from proposed University of Florida mentor must indicate faculty diligence in contacting references and arranging Zoom, phone, or personal interviews with the applicant, and strong confidence in the student's ability to complete a Ph.D. successfully. Faculty supervisors must demonstrate the ability and willingness to financially support any student without a prior M.S. degree for FIVE years (one year more than the typical four years to complete the Ph.D., as this is typical for direct-admission students) A detailed mentoring plan must be included in this letter. This supervisor support letter does NOT count as one of the 3 letters of recommendations.

Members of the departmental Graduate Admissions committee will judge the application of each student on its own merits and admission will require a majority vote of the graduate committee members. Admission decisions are made based on the individually perceived likelihood of the applicant's success in their proposed graduate program.

FINANCIAL ASSISTANCE

ENY GRADUATE ASSISTANTSHIP OPPORTUNITIES

The following opportunities exist to support MS and PHD Graduate Assistants. Students do not apply for these directly, rather, they must have an ENY faculty member who is willing to supervise them submit a nomination along with a letter of support (see admissions requirements) for Fall semester admissions only. Students should speak to potential supervisors about these opportunities.

• **CALS Dean's Awards**

There is one competitive award provided by the College of Agricultural and Life Sciences (CALS Dean's Award) available on a highly competitive basis for students seeking a Ph.D. This is a premier research-based award that is intended to support nominees with outstanding research potential. Nominees must be seeking a doctoral degree, and the start date of their program must be the Fall semester. Students awarded CALS Dean's Awards must have been accepted by our department, but not yet enrolled. Fellowship-holders are considered to be 1/2-time graduate assistants and must register each semester for the number of credits that are required for 1/2-time graduate assistants. The Graduate Committee selects outstanding students for these fellowships. Nominations and complete applications are due on January 15th of each year. A faculty member may submit ONE nomination annually for this award.

• **Departmental Assistantships**

The department has a few assistantships that can be awarded to outstanding M.S. (or occasionally) Ph.D. students. Current departmental assistantships include:

- 1) CURE / Principles of Entomology TA-ship - teaching assistant for face-to-face CURE (Classroom-based Undergraduate Research Experience) and in-person Principles of Entomology lectures.
- 2) Introductory Entomology TA-ship - teaching assistant for introductory courses the Principles of Entomology online course and The Insects
- 3) Entomology Outreach and Informal Education Coordinator –

Students awarded these assistantships are given a stipend, tuition waiver, and health insurance. Duties are assigned by the Graduate Coordinator.

• **Matching Assistantships (require faculty funding to match departmental support)**

Due to the generous contributions from the late Dr. and Mrs. James B. Gahan, Mrs. Margaret H. Gahan, as well as Mr. C.P. and Mrs. Lynn Steinmetz, the department is able to offer several matching assistantships a year. These matching funds are added to funds provided by individual faculty to fully fund student assistantships (4 years for PhD, 2 years for MS). Students receiving these assistantships are expected to serve as teaching assistants. Nominees must be seeking a doctoral degree (PhD or MS), and the start date of their program must be the Fall semester. Students awarded these assistantships must have been accepted by our department, but not yet enrolled. Assistantship-holders are considered to be 1/2-time graduate assistants and must register each semester for the number of credits that are required for 1/2-time graduate assistants. The Graduate Committee selects outstanding students for these fellowships. Nominations and complete applications are due on February 15th of each year. A faculty member may submit ONE nomination annually for this award.

• **Grant-Funded Assistantships**

Faculty members often award assistantships from grants. Students awarded these assistantships must perform work relevant to the grant stipulations. In many cases, the research conducted, or at least a part of it, may be used for the thesis or dissertation. Students on these assistantships are provided a stipend, tuition waiver, and health insurance. The faculty members holding the grants determine the length of time these assistantships may be held.

Work Requirements for Graduate Assistantship Holders

Assistantships are ½ (50%) time. Recipients of these 0.5 FTE assistantships are obligated to work 20 hours a week at whatever assignments their advisors designate. Students supported from a faculty research grant usually must perform work according to the grant stipulations. For CALS awards and ENY departmental assistantships, the Graduate Coordinator, in consultation with the supervisor, determines the work to be done, which usually includes a combination of assisting with courses and laboratory or field research.

Stipends and Benefits

Stipends for Graduate assistantships are determined by the Graduate Coordinator. Whereas stipends for assistantships funded from grants are determined by faculty members who hold the grants. All stipends must meet the Graduate School's minimum stipend level. Students on assistantships are provided a tuition waiver and individual health insurance.

Cancellation of Assistantships

A Letter of Appointment, signed by the student and the advisor, is issued to the student each semester and becomes a contract. Neither the department nor a faculty member may cancel an assistantship prior to the end of the contract without cause. The cause is usually in the form of unsatisfactory progress in the degree program documented in the semester graduate student semester evaluation form (Appendix G). The student may cancel the contract prior to the end of the contract (a semester), but then becomes liable for tuition that was waived while on the assistantship. Until those financial obligations are settled, the student cannot register, cannot get a transcript, and cannot graduate.

Outside Employment for Students on Assistantships

The department discourages students on assistantships from holding outside employment. Sometimes we recognize that additional employment may be necessary for financial reasons. If this becomes necessary, please obtain permission from your advisor before seeking other employment.

Awards and Scholarships

A number of scholarships, usually ranging from \$500 to \$3000, are awarded from endowment funds provided by families, clubs, professional societies, etc. Most of these, such as those awarded by the Agricultural Women's Club, are awarded on the basis of scholarship and service to the department and community. Students must be nominated by a faculty member for these scholarships, and a letter from the advisor must be included in the application packet. More information will accompany the annual call for nominations for each award.

Scholarships provided by the Entomology & Nematology Department (all due in Spring Semester) include:

- Mulrennan award – recognizes best ENY PhD dissertation and MS thesis annually
- Nan-Yao Su scholarship – recognizes academically outstanding graduate students who represent well the science of entomology to their peers and the public
- Dr. Marjorie A. Hoy Graduate Research Endowment for Arthropod Research - Supports graduate students who are conducting research on Arthropoda in the upcoming academic year. Preference will be given to students focusing on arthropoda of the Lower Suwanee National Wildlife Refuge, or on integrated pest management
- Dr. Marjorie A. Hoy Graduate Endowment in Molecular Entomology - Supports PhD students who are working on the science of molecular entomology in the upcoming academic year. Preference will be given to projects focusing on interactions between viruses and insects or between insect toxins and insect biology
- Pauline Lawrence award in physiology – awarded to students conducting research in biochemistry, physiology, molecular biology or toxicology

Employee Education Program

The Employee Education Program, or EEP, is an opportunity funded by university resources that enables full-time UF Academic Personnel, TEAMS employees, and USPS employees who have been employed in good standing for at least six months to receive tuition assistance for up to six credit hours of instruction per semester at the state university closest to their work location. TEAMS employees may also attend classes at a public community or state college closest to their work location. View University of Florida information about EEP here: <https://hr.ufl.edu/professional-development/eedp/>

EEP application process does not replace admissions or registration processes. The EEP is simply the process by which employees may obtain assistance in paying for coursework. EEP participants must review the program policy, eligibility criteria, and registration guidelines. The EEP application process does not replace the University of Florida admissions or registration process. Any employee interested in participating should review the institution's admissions policies and procedures in order to ensure proper enrollment for courses.

State Agency Employees - <https://registrar.ufl.edu/registration/employee-education.html>

Full-time state employees who have been admitted to a degree or non-degree seeking status are eligible for a fee waiver of up to six credits of UF courses per academic semester. The State Agency Employer Tuition Fee Waiver form <https://registrar.ufl.edu/assets/pdfs/feewaiver.pdf> is not an application for admission, nor is it a request for registration; it is a waiver of course fees that must be turned in to University Bursar.

Please note the deadlines for submitting your EEP paperwork: <https://learn-and-grow.hr.ufl.edu/education-programs/employee-education-program/uf-checklist/>

Sources of Travel Funds for Entomology & Nematology Graduate Students

Money to help defray the costs of attending a scientific meeting is offered by various sources. Some sources require a match of funds from your advisor or the department. Most sources require that the student be presenting their research at the conference. Always be sure to submit to the Entomology & Nematology Business Office the Travel Authorization form at least one month prior to travel and the Travel Reimbursement form as soon as possible after return from the meeting.

1. Entomology & Nematology Department
2. Entomology & Nematology Student Organization (ENSO)
3. College of Agriculture and Life Sciences
4. UF Research and Graduate Programs
5. UF Graduate Student Council
6. Scientific societies

ENSO Student Travel Grant

The Entomology and Nematology Student Organization (ENSO) Student Travel Grants are provided on a competitive basis to students and students must have participated in two departmental outreach events per semester (coordinated by Dr. Rebecca Baldwin and the graduate student outreach coordinator). These reimbursement-based grants will be used to cover travel-related expenses for presenting research or participating in career development activities at a professional conference or meeting. Reimbursement may cover conference registration, transportation, and lodging, Reimbursement may not cover food, entertainment, or purchases made on department P-cards. Usually, one grant is awarded each semester to qualifying ENSO members. The maximum grant is \$250.

Applicants must be a graduate student in the University of Florida Entomology and Nematology Department, and therefore a member of ENSO. The ENSO faculty advisors and officers will review all applications and select grantees. If an ENSO officer applies for the ENSO Student Travel Grant, he or she will not be eligible to review applications or select grantees. The same applies to ENSO faculty advisors that have a student(s) who apply for the ENSO Student Travel Grant. The following priorities will be considered when selecting grantees:

1. Students who are giving their first oral or poster presentation.
2. Students who are presenting just prior to graduation.
3. Students who are traveling internationally or to domestic locations greater than 500 miles away (as opposed to regional or national meetings held in Florida).
4. Students who are receiving less financial support from other sources.

College of Agriculture and Life Sciences Travel Funds

See [website](#) for application details and deadlines

IFAS/CALS Graduate Student Travel Grant

The IFAS/CALS Graduate Student Travel Grant Program provides matching funds up to \$200 to each graduate student applicant who is presenting a paper or poster on their original research at a regional, national, or international scientific meeting (one award per fiscal year). This travel grant must be matched 1:1 by funds provided through the student's department/program or advisor. The grants are reimbursed directly to the department, not the graduate student. Check the application deadlines carefully as the application deadline is at least two months before the date of travel).

James Davidson Graduate Travel Scholarship

The purpose of these scholarships is to provide funding to help defray travel expenses for graduate students presenting a paper or poster at a national or international professional meeting or conference. These scholarships are named after Dr. James M. Davidson, former Vice President for Agriculture and Natural Resources, Institute of Food and Agricultural Sciences, University of Florida, who established the endowment to fund these scholarships. Applications are due in the Graduate Coordinator's office one week before the college deadline so that requests can be ranked before submission to the college (due November 1st or May 1st, depending on travel date).

UF Research and Graduate Programs Travel Grant

Travel to conferences, symposia, and special research opportunities are essential for the professional development of advanced research students. The University also benefits by being represented at such events. The Office of Research and Graduate Programs (RGP) has therefore established a program to supplement student travel when other funding sources are insufficient. RGP guidelines for travel funding cap awards at \$300 per trip and require 1:1 matching funds from the department and/or college. These funds are primarily for assistance with the cost of travel, particularly airfare. These grants are one-time awards to Graduate Students. RGP cannot provide any retroactive reimbursements. Priority is given to PhD students who have passed their qualifying exam.

PDF application: https://research.ufl.edu/research-program-development/research_program_development_docs/travel.pdf

Graduate Student Council

The Graduate Student Council will award up to \$350 with no requirement for a match from the department or your advisor. See [web site](#) for details and deadlines.

Florida Entomological Society

The Florida Entomological Society (FES) offers travel grants to attend the FES annual meeting each year. Occasionally there are funds left over to fund travel to the Entomological Society of America meeting. No match is required but students must be members of the Florida Entomological Society and will receive notice of availability of funds from the chair of the FES Student Activities Committee.

Employment

Some domestic graduate students support themselves by working part time or even full time, usually as technicians, in the many laboratories in Gainesville. If the funds paid to these student employees can be converted into assistantships by the employing agency, the students are given tuition waivers.

Grants

Some of our graduate students fund their studies, at least in part, from grants that they obtain by writing grant proposals and having them funded. We encourage students to write grant proposals. Contact your research advisor for suggestions on granting agencies and take advantage of grant writing workshops and courses (e.g., ALS 6046, Grant Writing).

- The Florida Board of Education Summer Fellowship Program. This program is held in Summer B semester and is designed for under-represented minority graduate students. Participants receive a stipend of \$1,500 and tuition for 4 credit hours. The student pays student activity fees. The student must enroll as a full-time graduate student the following academic year. Students must be U.S. citizens or permanent residents.
- The FAMU Feeder Program. This program is designed to increase the number of Florida A&M University graduate students. The University of Florida provides five fellowships annually and all graduate programs at UF may compete for them. The application deadline is February 15th each year. Students must be U.S. citizens or permanent residents.
- McKnight Doctoral Fellowships. These fellowships are awarded by the Florida Education Fund to African American and Hispanic students newly admitted into selected doctoral programs. The stipend is for \$26,000 and tuition and fees are paid for a period up to three years (an additional two years of support are paid by the department). The application deadline is 15 January each year, and application must be made to the Florida Education Fund, 201 East Kennedy Blvd., Suite 1525, Tampa, FL 33602 or online at <http://www.fefonline.org/mdfapply/>. The telephone number is 813-272-2772.

INTERNATIONAL STUDENTS

International students may be funded by opportunities listed above or by their home institutions, governments, organizations such as USAID (United States Agency for International Development), OAS (Organization of American States), or IAEA (International Atomic Energy Agency), or by faculty from grants.

International students on a UF graduate-sponsored assistantship will be provided a stipend, a tuition waiver and individual health insurance (<http://gatorcare.org/gatorgradcare/>). They must demonstrate financial resources of \$57,555 for the first year to be permitted to come to the United States as a student. An additional \$6,000 is required for your spouse and \$5,000 for each child. (These dollar amounts were current for 2025-2026 academic year but most likely will be increased in future years). <https://internationalcenter.ufl.edu/start-up>

DEGREE REQUIREMENTS

NOTE: It is the responsibility of the student to observe all regulations and procedures required by the program he/she is pursuing. The Graduate Catalog is the ultimate authority on regulations and procedures (<https://gradcatalog.ufl.edu/graduate/>). Ignorance of a rule does not constitute a basis for waiving that rule.

ENY Canvas Advising Hub

All incoming students are added to the UF Canvas Advising Hub to help them orient themselves to what is needed to succeed as they work toward the degree. We have assembled guidelines, resources, and other information to support students and their advising team. This advising hub will help students anticipate and prepare for major milestones in their degree program and will also be a repository for important documents.

Completion of Degree Requirements

All students are expected to complete degree requirements and graduate within a reasonable time. An M.S. with thesis is typically earned in two years (6 semesters), and a Ph.D. degree in three to four years (9 to 12 semesters) after the Master's degree. However, since research is not predictable, it often takes longer to complete the M.S. and Ph.D. degree requirements..

Registration

The Registrar enforces these deadlines: Students enrolled at the University of Florida must pre-register for the next semester during the regular registration period. You must be registered by 5:00 PM the day before classes, or, if classes start on a Monday, you must be registered by 5:00 the previous Friday. If you are not registered by this time, you will incur a late registration fee of \$100.00. If you do not pay your fees on time, the charge for late payment of fees is \$100.00. To avoid these charges, register on time and pay fees on time.

The Entomology and Nematology Department encourages early registration. This is particularly important if you wish to take a popular course in another department as the course may fill before you can register. By registering early, you will have a good chance of getting a seat in a class with limited enrollment. Also, if you need special accommodations, we will need to obtain this for you. Stephanie Stout (stout.s@ufl.edu, 352-273-3913) will always register REC students for all classes. She will register Gainesville students for research (you may register for courses yourself). Students on an assistantship must register for 9 credits each fall and spring and 6 in the summer. Your tuition waiver will not pay for more than this.

- For the summer semester—the last Monday in April,
- For the fall semester—the last Monday in July, and
- For the spring semester—the first Monday in December.

Gainesville students may register through ONE.UF (<https://one.ufl.edu>), or through the Departmental Student Services Office, Room 1028. REC students must register through the academic assistant.

Table 2. Minimum Number of Credits for Full-Time Registration

| | Fall and Spring | Summer | | | | |
|--|--------------------|--------|---|----|----|---|
| | | A | & | B | or | C |
| Full-time graduate students not on assistantship | 9-12 | 3 | | 3 | | 6 |
| Assistants on 0.01-0.24 | 12 | 4 | | 4 | | 8 |
| Assistants and fellows on 0.25-0.74 | 9 | 3 | | 3 | | 6 |
| Assistants on 0.75-.99 | 6 | 2 | | 2 | | 4 |
| Full-time assistants: | | | | | | |
| 1.00 Fall and Spring | 3 | | | | | |
| 1.00 Summer A | | 2 | | or | | 2 |
| 1.00 Summer B | | 2 | | or | | 2 |
| 1.00 Summer C | | 1 | & | 1 | or | 2 |
| Part-time graduate students not on assistantship | 3 | 1 | & | 1 | or | 2 |
| Graduate students not on assistantship during final term | 3 | 1 | & | 1 | or | 2 |

Note: Registration requirements listed here do not apply to eligibility for financial aid programs administered by the Office for Student Financial Affairs. Check with Student Financial Affairs in S-107 Criser Hall for financial aid registration requirements (<http://www.sfa.ufl.edu/>).

Students who do not register properly (according to Table 2) for each semester that they hold graduate assistantships will not be permitted to remain on assistantships. For students on assistantships for the full summer, minimum registration must total that specified for C term. Registration may be in any combination of A, B, or C terms. However, courses must be distributed so that the student is registered during each term that he/she is on appointment. Students on assistantships registering for any summer term must register before the beginning of A/C term.

Drop/Add

During the drop/add period the student may drop and add courses with no penalty but must have prior approval of their faculty advisor. After the regular drop/add period, the student will be held fee liable for any dropped course. To be clear, you will be charged tuition and fees for the course(s) that you drop after the drop/add period. Reducing the number of credits within a section is considered by the Registrar's office to be the same thing as dropping a course (as the old section must be "dropped" and the new section "added"). It is the student's responsibility to make sure that their registration is correct before the end of the drop/add period. Drop/Add forms must be initiated by the Graduate Coordinator's Office. If a student on assistantship drops to less than the minimum number of required credits per semester, he/she will lose the assistantship, and, in addition, must reimburse the University for fees waived and may be liable for the stipend paid that semester.

Satisfactory/Unsatisfactory (S/U) Grading

In our department, grades of S and U are the only grades awarded for 6932 (Special Topics), 6940 (Supervised Teaching), 6971 (Master's Research), 7979 (Advanced Research), and 7980 (Doctoral Research).

Program of Study

The Program of Study (Appendix F) lists the courses to be taken and the semesters in which the student plans to take them. To help the Supervisory Committee plan for completing the Program of Study, please provide each committee member a photocopy of B.S. (and M.S.) transcripts. Also, coordinate a time when you and all committee members can meet together to complete a mutually agreeable schedule of courses to fit your particular needs.

The student may take courses not listed on the Program of Study with their supervisor's permission. If, for any reason, the student fails to take a course listed on the Program of Study, his/her advisor must petition the Graduate Coordinator to have the course(s) deleted from the Program. Otherwise, the student will be unable to graduate for failure to complete the Program of Study.

Letter of Appointment

Each Gainesville student on an assistantship or fellowship, must have a Letter of Appointment each semester. This form, along with the Evaluation Form (Appendix G), is sent to the student's advisor before the end of each semester and must be signed by the student and the advisor and returned to the business office.

Evaluation

Each student in this department, regardless of their physical location, is required to have an evaluation of progress at the end of each semester (Appendix G). The evaluation must be made by the student's advisor (but could include input from the entire Supervisory Committee) and should name specific achievements, milestones reached, and any impediments to progress or concerns about performance for the past semester, along with and goals for the coming semester. The evaluation form must be signed by the student and the advisor and returned to the academic assistant.

MINIMUM COURSE REQUIREMENTS

Entomology Students

Master's Degree Students shall take the following courses:

Graduate Survey of Entomology and lab, (ENY 5006/5006L) . Alachua County-based students must take this course in-person.

A course in insect physiology (ENY 6401/6401L)

A course in insect classification (ENY 6166). Alachua County-based students must take this course in-person.

A graduate course in ecology (suggest ENY 6203/L or ENY 6206)

Entomology Graduate Seminar (ENY 6934) (must register for at least one semester at UF). Must be graded. (ENY 6931, Seminar in Science Communication (non-letter graded) does not count as a required seminar ENY 6934.)

A beginning course in statistics

At least one other ENY/NEM elective course

Doctoral Degree Students shall take the following courses:

- Graduate Survey of Entomology and lab, (ENY 5006/5006L) . Alachua County-based students must take this course in-person.
- Insect Classification, ENY 6166 Alachua-County based students must take this course in-person.
- At least one graduate statistics class (suggest STA 6093)
- Seminar, ENY 6934 (2 times; to increase breadth, suggest taking seminars in topics not related to the student's research area) (ENY 6931, Seminar in Science Communication (non-letter graded) does not count as a required seminar ENY 6934.)

In addition, take at least two more courses, one each from two of the three subject areas below. Students must earn at least 12 credits of graded ENY credit during their PhD program. Take more courses to round out knowledge requirements, as directed by the supervisory committee.

Sub-organismal subject area:

- Insect Physiology
- Insect Toxicology
- Molecular Biology of Insects and Nematodes
- Molecular Biology Techniques
- Insect Microbiology

Organismal subject area:

- Social Insects
- Insect Ecology
- Ecology of Vector-borne Disease
- Insect Behavior
- Behavioral Ecology and Systematics
- Immature Insects
- Techniques in Insect Systematics
- Advanced Mosquito Biology
- Tropical Entomology
- Advanced Apiculture
- Insects and Wildlife

Applied subject area:

- Ecology and Conservation of Pollinators
- Insect Pest and Vector Management
- Field Techniques in Integrated Pest Management
- Insect Diagnostics
- Biology and ID of Urban Pests
- Principles of Urban Pest Management
- Advanced Medical and Veterinary Entomology
- Graduate Survey of Urban Vertebrate Pest Management
- Turf and Ornamental Entomology
- Biological Control
- Insects as Vectors of Plant Pathogens
- Mosquito Identification
- Plant Nematology
- Entomopathogenic Nematodes
- Citrus Pest Management
- Experiments in Agriculture and Ecology

Nematology Students

Master's Degree Students shall take, or shall have taken the equivalent of, the following courses

- A beginning course in nematology
- Nematode Morphology and Anatomy
- Nematode Taxonomy and Molecular Phylogeny
- A graduate course in ecology
- Nematology Seminar (must register for at least one semester at UF)
- A beginning course in statistics
- At least one other NEM or ENY elective course

Doctoral Degree Students shall take, or shall have taken the equivalent of, the following courses

- Nematode Morphology and Anatomy
- Nematology Seminar or equivalent (must register for at least two semesters at UF)
- Statistics (at least one – STA6093 or AGR6932 recommended)
- In addition, take at least two more courses, one from each of the two categories below. Students must earn at least 12 credits of graded NEM or ENY credit during their PhD program. Take more courses to round out knowledge requirements, as directed by the supervisory committee.

Nematology Electives (at least one)

- Graduate Survey of Nematology
- Plant Nematology
- Nematode Taxonomy and Molecular Phylogeny
- Insect Parasitic Nematodes
- Field Plant Nematology
- Nematode Diagnostics
- Nematode Management
- Integrated Nematode Management

Other ENY/NEM Electives (at least one)

Some Courses at the University of Florida that Satisfy the Statistics Requirement

STA 6166 Statistical Methods in Research I (Statistics Department)

STA 6093 Introduction to Applied Statistics (taught by College of Agricultural and Life Sciences faculty)

For a listing of all non-Statistics Department courses, visit

https://ufstatscourses.shinyapps.io/shiny_tutorial/

Our program requires a solid understanding of statistics. The University of Florida offers several introductory graduate-level classes by distance technology: STA 6093 (Introduction to Applied Statistics for Agricultural and Life Sciences) is recommended. In order to meet the prerequisites for those courses, students should have the equivalent of STA 2023 (Introductory Statistics) during their undergraduate program. If not, the Statistics department recommends the student work through this free online course, STATISTICAL REASONING, offered through Carnegie Mellon University to prepare for taking STA 6166 or STA 6093: <http://oli.cmu.edu/learn-with-oli/see-our-free-open-courses/>.

Taking statistics in semester 1 is not recommended unless students are confident in their abilities.

In addition, students who are not confident of their statistical skills may want to review this online handbook of statistics before attempting STA 6166 (<http://www.biostathandbook.com/>). It is also available for download as a free PDF (<http://www.biostathandbook.com/HandbookBioStatThird.pdf>).

If your statistics background is not strong, and you and your committee truly feel that you do not need a strong knowledge of statistics for your career, you can take PHA 6935 Applied Statistics for Data Analysis. This is a basic course, similar in content to an undergraduate statistics, but be aware though that this is a course designed for public health and forensics students and will not use entomological or agricultural examples.

For students that desire more advanced statistical courses beyond STA 6093, there are many great options at UF. ALS 6502C (Linear Models in Agricultural and Natural Resources), taught by ENY faculty, builds upon STA 6093 to cover generalized and mixed models (<https://entnemdept.ufl.edu/Hahn/>). AGR 5266C Field Plot Techniques (https://agronomy.ifas.ufl.edu/media/agronomyifasufledu/documents/AGR5266C_0877_Fall2023.pdf) provides a deeper dive into experimental design both through field visits and analytically. ALS 6500 Multivariate Analysis for the Life Sciences is a great option for learning multivariate skills. For students interesting in building their R coding skills, ALS 6501 Data Carpentry for Biologists (<https://datacarpentry.org/semester-biology/syllabus/>) is an excellent course. For a listing of all non-Statistics Department courses, visit https://uf-statscourses.shinyapps.io/shiny_tutorial/

To meet the prerequisites for STA 6093 course, you should have the equivalent of STA 2023 (Introductory Statistics) during your undergraduate program. In addition, we recommend you work through this free online course, in Statistical Reasoning, offered through Carnegie Mellon University, to prepare for taking STA 6093: [Statistical Reasoning – Open & Free - OLI](#)

You should also consider reviewing this online handbook of statistics (<http://www.biostathandbook.com/>). It is also available for download as a free PDF (<http://www.biostathandbook.com/HandbookBioStatThird.pdf>).

Master of Science with Thesis

Role of the Committee Chair/Faculty Supervisor

The chair of the graduate student's committee guides the student in their choice of elective classes, suggests members for their supervisory committee, encourages the student to meet all published departmental and university deadlines, completes an evaluation of the student's academic progress every semester, guides the student's research planning process, and oversees and facilitates completion of the research. The supervisor reviews the research proposal and thesis extensively before allowing the student to send them out for review by committee members. The supervisor chairs committee meetings and the final exam/defense. Given the department-specific knowledge required to effectively supervise graduate students in Entomology & Nematology, courtesy faculty members with Graduate Faculty status in Entomology & Nematology may serve as chairs but a salaried Entomology & Nematology faculty member must serve as co-chair. Courtesy faculty members are those employed by agencies other than the University of Florida.

Supervisory Committee

The Supervisory Committee should be appointed as soon as possible but no later than the end of the second semester of study. If the Supervisory Committee is not appointed before the end of the second semester of study, the Graduate Coordinator will place a hold on the student's record preventing further registration. The department requires that the Supervisory Committee be comprised of at least two Graduate Faculty members and at least one member must be salaried Entomology & Nematology faculty. If the student declares a minor (not required), one of the committee members must be from the minor department. The Supervisory Committee chair and one member must have been appointed to the Graduate Faculty. Special member status may be granted to PhD scientists who are not employed by the University of Florida but can contribute valuable expertise to the student's committee. A Special member may NOT serve as the committee chair and cannot be counted as one of the two required committee members.

Program of Study

The student must meet with his/her major professor to complete a preliminary Program of Study during the first semester. As soon as the Advisory Committee is formed, and by the end of the second semester, the committee should approve the Program of Study and the final Program of Study with signatures of committee members should be filed with the Graduate Coordinator's office at that time.

Research Proposal

Students are required to prepare a written research proposal to include a review of the literature, hypotheses, and a detailed description of their planned experimental design and statistical analysis and to give an oral presentation of it (see Appendix D and I for outline of expected format and evaluation form). The written proposal and announcement of the oral presentation must be emailed to Elena Alyanaya at least 10 days prior to the oral presentation so that she can distribute these to all departmental graduate faculty. The research proposal must be presented by the end of the second semester. The proposed date for the oral presentation should be cleared with the student's supervisory committee early in the "deadline semester" so they can all attend and so the student will have a target date to aim for. The student's advisor should invite several specific faculty members external to the student's committee but in the same general subject area (Behavior/Ecology/ Systematics, Biological Control/IPM, Med./Vet./Urban, Nematology, or Physiology/Biochemistry/Genetics) to review the written proposal and attend the oral presentation. All committee members must be present with the candidate at the Research Proposal presentation (electronic presence by Zoom or is acceptable for a committee member, however the student and the chair must be in the same room). All committee members will complete the Research Proposal Assessment (Appendix H) and return it to the Student Services office.

Number of Credits Required

A minimum of 30 credit hours is required. Total registration for 6971 (Research for Master's Thesis) is unlimited, but only 6 credits will count toward the 30 required. The student must register for a minimum of 3 credits of 6971 in the term of graduation (2 if graduating in the summer semester), regardless of the number of previous credits taken. Students on assistantships during the term of graduation must register for 9 credits for the fall or spring semester and 6 credits for the summer semester. Students on fellowships must register for 12 credits for the fall or spring semester and 8 credits for the summer semester.

At least 15 credits (not including 6971) must be courses in the major, numbered 5000 or above. A minimum GPA of 3.0 is required in the major, the minor (if chosen), and overall, in order to graduate. If a minor is chosen, the minor representative will determine the requirement for his/her department. For work outside the major, six credits in courses numbered 3000 and 4000 may count for graduate credit provided they are listed on the Program of Study. Unless otherwise approved in writing by the Graduate School, minor work must be in a department other than the major.

Transfer of Credit

A maximum of 9 credit hours of graduate courses with grades of A, A-, B+, or B, may be transferred into an M.S. program from other institutions, if approved by the Graduate School. A maximum of 15 credit hours of graduate courses with grades of A, A-, B+, or B, taken as post-baccalaureate or non-degree seeking student at the University of Florida may be transferred to the M.S. program. Petitions for transfer of credit must be made during the first semester of enrollment in the graduate program.

Electronic Submission of the Thesis

All students must submit their theses electronically. The thesis must be approved by all members of the Supervisory Committee. Information on format of the thesis may be obtained from the web at <http://helpdesk.ufl.edu/application-support-center/graduate-editorial-office/>. The Entomology & Nematology Department requires a pdf copy of the complete thesis that must be submitted to the Office of the Graduate Coordinator for binding and deposit in the departmental library. Usually, the Supervisory Committee chairperson will want a paper copy of the dissertation, as may other members of the committee. Usually the student pays for these copies, although the chairperson may offer to do so, at their discretion. The Entomology & Nematology Department will pay for the copy that will be kept in our departmental library. For each additional copy that a student would like, they must give one electronic copy (pdf) and a check (made out to the University of Florida) for \$15 to the academic assistant.

Exit Seminar and Final Examination

The student must give an exit seminar and pass a final examination administered by the supervisory committee. Students must give their committee members a supervisor-approved version of their thesis at least two weeks before the exam date. All committee members must be present with the candidate for the exit seminar and final examination (electronic presence by Zoom is acceptable for a committee member, however the student and the chair must be in the same room) The examination will be oral and cannot be taken earlier than the term before the degree is to be awarded. Before taking the final examination, the student's thesis should be in final form. The Final Exam form, Publishing Agreement form, and Official ETD Signature page must be prepared by the Graduate Coordinator's office. The forms must be requested 10 working days in advance of the Exit seminar and Defense date. The exit seminar is usually given immediately before the final examination. All committee members must evaluate the student's performance in the final exam using the M.S. Final Exam Assessment (Appendix I). The written thesis and its oral defense will be evaluated by all members of the committee using the Written Thesis/Dissertation and Oral Defense assessment (Appendix I). Completed assessments are to be turned in to the Student Services office.

Publication of the Thesis

If a student is not making good progress toward publishing the thesis one year after graduation, the student's major advisor has the option of publishing it. The student will be the first author. "Making good progress" will be defined as at least a first draft of one or more manuscripts having been received by the advisor.

Exit Interview with Department Chairperson

All students should try to meet with the Department Chairperson to discuss the quality of her/his experience as a student in the Department and inform the chair of their plans for the immediate future regarding employment (Academic or Industry) or continued education. A request to complete two Qualtrics surveys will be emailed to the student during their anticipated graduation semester (evaluation of your graduate experience and questionnaire about future plans). Students at RECs or other distant sites may call (352-273-3970) or email the Chairperson (andrew.short@ufl.edu) if they can't meet with him in person.

Change from a Thesis to Non-Thesis Option

Students who wish to change from a thesis to a non-thesis option must obtain the permission of the Supervisory Committee and Graduate Coordinator. The request to change to the non-thesis option must be made to the Graduate Coordinator before the midpoint of the anticipated semester of graduation. The student must meet all requirements of the non-thesis option. At the discretion of the Supervisory Committee, and with the approval of the Graduate School, 3 retroactive semester credits of 6971 (Master's Research) may be converted to 6905 (Special Problems) or 6934 (Selected Studies) with a letter grade of B or above. To do so, a petition written by the Chairperson of the Supervisory Committee must certify that the 6971 work was productive in and of itself and warrants credit as a Special Problem or Selected Study. The petition is initiated by the Graduate Coordinator's office and will be sent to the Associate Dean, CALS and then on to the Dean of the Graduate School.

Final Examination

The final examination, given during the final semester, must be both written and oral with written questions from all Supervisory Committee members. All committee members must be present with the candidate for the oral examination (electronic presence by Zoom is acceptable for a committee member, however the student and the chair must be in the same room). All committee members must evaluate the student's performance in the final exam using the M.S. Final Exam Assessment (Appendix I). Assessments are turned into the Student Services office.

Exit Interview with Department Chairperson

All students should try to meet with the Department Chairperson to discuss the quality of her/his experience as a student in the Department and inform the chair of their plans for the immediate future regarding employment (Academic or Industry) or continued education. An Exit Interview PDF form will be emailed to the student during their anticipated graduation semester to be filled out and returned to the Graduate Coordinator's office, copied to the Department Chairperson. Students at RECs or other distant sites may call (352-273-3970) or email the Chairperson (andrew.short@ufl.edu) if they cannot meet with him in person.

Doctor of Philosophy in Entomology and Nematology

Role of the Committee Chair/Faculty Supervisor

The chair of the graduate student's committee guides the student in their choice of elective classes, suggests members for their supervisory committee, encourages the student to meet all published departmental and university deadlines, completes an evaluation of the student's academic progress every semester, guides the student's research planning process, oversees and facilitates completion of the research, and facilitates the student's professional development through the process of developing and annually revising the student's Individual Development Plan ([IDP](#)). The supervisor reviews the research proposal and dissertation extensively before allowing the student to send them out for review by committee members. The supervisor chairs committee meetings, the qualifying exam, and the final exam/defense. Given the department-specific knowledge required to supervise effectively graduate students in Entomology & Nematology, courtesy faculty members with Graduate Faculty status in Entomology & Nematology may serve as chairs but a salaried Entomology & Nematology faculty member must serve as co-chair. Courtesy faculty members are those employed by agencies other than the University of Florida.

Supervisory Committee

The Graduate School and the Entomology and Nematology Department require that all Ph.D. Supervisory Committees be comprised of at least four faculty members, all with Graduate Faculty status. At least two members must be salaried Entomology & Nematology faculty and one must be from a different department within the University (the "external" member). Special member status may be granted to non-University of Florida PhD scientists who can contribute significant expertise to the student's committee, but a Special member cannot count as one of the four required members. If the student declares a minor (not required), at least one committee member must be from the minor department. The Supervisory Committee must approve the dissertation topic and the plans for carrying out the research. In addition, the committee should meet with the student at about the mid-point of the research to review procedures, progress, and expected results, and to make suggestions for completion of the program. Students are encouraged to meet with individual committee members for advice outside of regular committee meetings.

Graduate School Policy on Ph.D. Supervisory Committees:

Roles and Responsibilities of the Doctoral Supervisory Committee

Supervisory committees for graduate degree programs are nominated by the respective academic units, approved by the college dean, and appointed by the Dean of the Graduate School. Staff entering supervisory committee data into GIMS ([GIMS Home](#)) do so with the approval of the student's committee chair, the chair/director of the academic unit, and the college dean.

At least four members of the Graduate faculty are required for all doctoral supervisory committees. A Special member will not count as one of four required committee members but must be an additional member. More members may be added by agreement of the chair and candidate. It is acceptable for departments to require more than four members on supervisory committees. All members must participate in the examinations, but electronic presence (Zoom, phone) is allowed. The student and the chair must be physically in the same room during exams.

1. Chair

- a. Must have graduate faculty status in the student's department/major.
- b. Cannot be a Special Appointment.
- c. Serves as the candidate's mentor.
- d. Assists the candidate with all committee appointments and has primary responsibility for the conduct of all examinations.
- e. Must escort the candidate at commencement or find an appropriate substitute.

Co-chair

- a. Is not required to have Graduate faculty status in the student's department/major.
- b. May substitute for the chair at any examination, but only if the co-chair is in the same department/major as the student.

Members

- a. Must include at least one other member from the student's degree program, in addition to the chair.
- b. Other members can be from the program recommending the degree or from a different educational discipline.
- c. Serve to assist the student and chair with the research/scholarship of the dissertation and all examinations.

External Member

- a. Must be UF faculty with Graduate Faculty Status outside the student's major.
- b. Has the primary responsibility to represent the interests of the student, and the policies and practices established by the Graduate School.
- c. Must verify that the student successfully defends the dissertation, that all members are present in person or via electronic technologies including teleconferencing, videoconferences, computer interfaces, etc, and that the defense is conducted properly.
- d. Cannot be a Special Appointment.
- e. May represent minor areas of study as long as they do not have Graduate Faculty status in the student's major.

Responsibilities of Off-campus Chair and Campus Co-chair

Graduate students whose faculty supervisor (i.e., chair of their graduate committee) is off-campus should select a Gainesville faculty member as a co-chair if they plan to spend any or all of their time on the Gainesville campus. Typically, the co-chair will provide supervision of and assistance to the student while on campus. For those students who will perform their research off-campus, the co-chair should guide the student in choosing classes and should provide feedback during the development of the research proposal in collaboration with the chair. For those students who will conduct their research on campus (a less common situation), the co-chair may help with research planning and implementation by providing the student laboratory space, supplies and equipment necessary to perform his/her research. In this situation, because the co-chair may be more familiar with the research done by the student in his/her lab, the co-chair will also take substantial responsibility for assisting the student in the process of writing the thesis/dissertation and manuscripts. Whether the student conducts his/her research on-campus or off, the co-chair and chair will communicate regularly about the student's progress and submit Student Evaluations each semester. Co-chair and chair should both assume responsibility for the success of the student's graduate experience.

Individual Development Plan (IDP)

All PhD students must develop an Individual Development Plan (IDP) with input from their major professor. Instructions will be provided by the Graduate Coordinator during the new student orientation and in the Graduate Professional Development seminar (ENY 6932) offered each fall semester. The plan template and resources to help students develop professional skills are on the [College of Agricultural and Life Sciences website](#) and at [The Graduate School - University of Florida \(ufl.edu\)](#). Additional extensive opportunities for professional development are found on the [Office of Graduate Professional Development website](#). Evidence of a plan and an annual re-evaluation of the plan is due in the Graduate Coordinator's office by August 1st each year of the student's program.

Program of Study

The student must meet with his/her major professor to complete a preliminary Program of Study during the first semester. As soon as the Advisory Committee is formed, and by the end of the second semester, the committee should approve the Program of Study and the final Program of Study with signatures of committee members should be filed in the Graduate Coordinator's office at that time.

Research Proposal

Students are required to prepare a written research proposal to include a review of the literature, hypotheses, and a detailed description of their planned experimental design and statistical analysis and to give an oral presentation of it (see Appendix I for outline and evaluation form). The written proposal and announcement of the oral presentation must be emailed to Elena Alyanaya at least 10 working days prior to the oral presentation so that she can distribute these to all departmental graduate faculty. The research proposal must be presented and approved by the supervisory committee (with minor changes as necessary) at least by the semester immediately preceding the semester in which the Qualifying Examination is taken (third to fifth semester). The proposed date for the oral presentation should be cleared with the student's supervisory committee early in the "deadline semester" (second to fourth semester) so they can all attend and so the student will have a target date to aim for. All committee members must be present with the candidate at the Research Proposal presentation (electronic presence by Zoom or is acceptable for a committee member, however the student and the chair must be in the same room). The student's advisor should invite several specific faculty members external to the student's committee but in the same general subject area (Behavior/Ecology/Systematics, Biological Control/IPM, Med./Vet./Urban, Nematology, or Physiology/Biochemistry/Genetics) to review the written proposal and attend the oral presentation. All committee members will complete the Research Proposal Assessment (Appendix I) and return it to the Student Services office.

Ph.D. Qualifying Examination

The Ph.D. qualifying examination is comprehensive in scope with questions on details as well as principles and generalities. The student should prepare by restudying all courses in one's major and closely allied subjects as if preparing to take a final examination in each subject. This requires a few months of review for most students. The student **MUST** know his/her specific research area and organism(s) including its taxonomy (from highest taxon to the lowest), life cycle, host range, and geographic range.

The Qualifying Examination may be taken during the third semester after enrolling in the doctoral program, but must be taken by the fifth semester (including summers). It may be taken prior to completion of all courses. The student must be registered for the semester in which the Qualifying Examination is taken. Our department recommends that the Qualifying Examination be taken during the third semester of study for the Ph.D. By that time, the student should have taken most, if not all, of the required courses and be ready to devote most of his/her time to the dissertation research. The examination is both written and oral. Our department requires written examinations from at least four members of the Supervisory Committee. Many Supervisory Committees administer the written examinations one per day on consecutive days one or two weeks before the oral examination. The committee member should grade the examination and return a copy to the student so that he/she will have time to review any weak areas before the oral examination. All committee members must be present with the candidate for the qualifying examination (electronic presence by Zoom is acceptable for a committee member, however the student and the chair must be in the same room). Competence in the minor area (if chosen) may be demonstrated through a written examination conducted by the minor department or through the oral qualifying examination. All committee members must evaluate the student's performance using the PhD Qualifying Exam assessment (Appendix I). Completed assessments are to be turned in to the Student Services office.

Between the oral portion of the Qualifying Examination and graduation, at least two full semesters must elapse for full-time students and one calendar year for part-time students. The semester in which the Qualifying Examination is taken counts as one semester if the examination is taken before the mid-point of the semester.

If a student fails the Qualifying Examination, a re-examination may be requested, but it must be recommended by the Supervisory Committee. If the request is approved, at least one semester of additional preparation is considered essential before re-examination.

Admission to Candidacy

A student is not a candidate for the Ph.D. degree until granted formal Admission to Candidacy. This requires approval of the Supervisory Committee, the Graduate Coordinator, the Associate Dean of CALS, and the Dean of the Graduate School. Approval is based on the student's academic record, overall fitness for candidacy as judged by the Supervisory Committee and the Graduate Coordinator, an approved dissertation topic, and passing a Qualifying Examination. Students may not register for ENY 7980 or NEM 7980, Doctoral Research, until admitted to candidacy.

Number of Credits Required

A minimum of 90 credit hours beyond the bachelor's degree is required. Students must earn at least 12 credits of graded ENY credit during their PhD program. A maximum of 30 credits with a grade of B or better may be transferred into the Ph.D. program from an M.S. degree from other colleges or universities approved by the Graduate School. All credits earned in an M.S. program at the University of Florida are carried on to the Ph.D. program.

A minimum GPA of 3.0 is required in the major, the minor (if chosen), and to graduate. If a minor is taken, at least 12 credits in the minor subject are required. If two minors are taken, at least 8 credits in each are required. Students must register for a minimum of 3 credits (fall or spring) or 2 credits (summer) of ENY 7980 or NEM 7980 Research for Doctoral Research during the term of graduation. Students on as-

sistantships during the semester of graduation must take 9 credits in the fall or spring semester and 6 in the summer semester. Fellowship holders (other than UF Graduate School Fellows) must register for 12 credits in the fall or spring semester and 8 credits in the summer semester.

Exit Seminar and Final Examination

The Final Examination may be taken no earlier than the semester preceding the semester in which the degree is conferred. Students must give their committee members a supervisor-approved version of their dissertation at least two weeks prior to the exam date. The Final Examination usually is oral and constitutes a defense of the dissertation. However, it may be oral, or written and oral at the discretion of the Supervisory Committee and may be used to re-examine the student on any areas in which he/she was weak in the Qualifying Examination. All committee members must be present with the candidate for the final examination (electronic presence by Zoom is acceptable for a committee member, however the student and the chair must be in the same room). The written dissertation and its oral defense will be evaluated by all members of the committee using the Written Thesis/Dissertation and Oral Defense assessment (Appendix H). Completed assessments are to be turned in to the Student Services office.

The student must present an exit seminar based on the dissertation. The exit seminar should be given immediately preceding the Final Examination and the date, time, and room to be used should be scheduled in the Student Services Office with two weeks' notice.

Electronic Submission of the Dissertation

All students must submit their dissertations electronically. Information on format may be obtained from the web at <http://helpdesk.ufl.edu/application-support-center/graduate-editorial-office/>

The Entomology and Nematology Department requires a paper copy of the complete dissertation that must be submitted to the Office of the Graduate Coordinator for binding and deposit in the Reading Room. Usually, the Supervisory Committee chairperson will want a paper copy of the dissertation, as may other members of the committee. The Entomology & Nematology Department will pay for the copy that will be kept in our departmental library. For each additional copy that a student would like, he must give an electronic copy and a check (made out to the University of Florida) for \$15 to the academic assistant.

The dissertation must be approved unanimously and signed by all members of the Supervisory Committee at the defense.

Publication of the Dissertation by ProQuest

Since all dissertations may be published by ProQuest/UMI, it is necessary that the work is of publishable quality and that it be in a form suitable for publication. The dissertation must contain an abstract and be accompanied by all doctoral forms and a letter of transmittal from the Supervisory Committee chairperson.

Candidates for the Ph.D. degree can pay \$65 to University Financial Services, S113 Criser Hall for processing, and may sign an agreement authorizing publication by ProQuest/UMI. If a student chooses not to have his dissertation distributed by ProQuest/UMI, he may complete the appropriate form and submit it to the University of Florida Editorial Office. <https://etd.uflib.ufl.edu/additional-publishing-options/>

Publication of the Dissertation in Scientific Journals

If a student is not making good progress toward publishing the dissertation results one year after graduation, the student's major advisor has the option of publishing it. The student will be the first author. "Making good progress" will be defined as at least a first draft of one or more manuscripts having been received by the advisor. We encourage doctoral students to publish at least one paper from their research before graduation.

Exit Interview with Department Chairperson

All students should try to meet with the Department Chairperson to discuss the quality of her/his experience as a student in the Department and inform the chair of their plans for the immediate future regarding employment (Academic or Industry) or continued education. An Exit Interview PDF form will be emailed to the student during their anticipated graduation semester to be filled out and returned to the Graduate Coordinator's office, copied to the Department Chairperson. Students at RECs or other distant sites may call (352-273-3970) or email the Chairperson (andrew.short@ufl.edu) if they can't meet with him in person.

Time Limitations

All work for the doctorate must be completed within 5 calendar years after the Qualifying Examination, or this examination must be repeated. All master's degrees counted in the minimum must be earned in the last 7 years.

Certification

Doctoral candidates who have completed all requirements for the degree may request certification to that effect prior to receipt of the degree. The certification request form (available on the web at: <https://graduateschool.ufl.edu/media/gradufl.edu/pdf/verification.pdf>) should be filled out by the candidate, signed by the Supervisory Committee Chair and the CALS Associate Dean, then returned to the Graduate School for verification and processing. Certification forms will not be processed one week before or one week after graduation.

Teaching Assistants

Graduate students, whether or not on assistantships, are encouraged to serve as Teaching Assistants in the various courses taught in the department, especially ENY-supported assistants are required to serve as Teaching Assistants as part of their duties. Students on CALS Dean's Awards and those funded with matching funds from the CALS Dean or departmental endowment funds will also have teaching responsibilities. The Graduate Coordinator and Associate Chair for Academic Programs will arrange the timing and courses for students serving as Teaching Assistants.

The Teaching Assistants for ENY3005L/ENY5006L are in charge of one laboratory section but are usually supervised by the course instructor or a senior Teaching Assistant. Duties includes arranging for supplies, equipment, class materials, demonstrating use of equipment, explaining laboratory procedures, straightening up the lab afterward, storing equipment, conducting field trips, creating, administering, and grading laboratory examinations, and grading the insect collections.

Enrollment in ENY or NEM 6940, Supervised Teaching, is only permitted if students are actively testing out new teaching methodologies or engaging in some other scholarly teaching activity. Registration in this course is not appropriate for routine teaching assistance.

Florida law requires international students to demonstrate adequate fluency in speaking English before they can be hired as graduate teaching assistants in a classroom, laboratory, or other instructional venue. UF uses either its own local SPEAK Test or the TOEFL iBT Speaking Section to meet the requirements of that law. Click this link to learn more about minimum required scores and other policies, along with SPEAK Test dates and procedures: go.ufl.edu/speak.

SERVICES

Libraries

Scientific literature is housed in the George A. Smathers Libraries (Marston Science Library and the Health Sciences Library, (<http://www.uflib.ufl.edu/>) and the Division of Plant Industry (DPI) library located in the Doyle Conner Building on the University of Florida campus. Much of the holdings of the Smathers Libraries can be accessed from off-campus by any student with a Gatorlink account using the UF VPN Service (<http://www.uflib.ufl.edu/login/vpn.html>). The DPI library emphasizes systematic and taxonomic works.

Bibliographic Searches

Finding relevant literature is vastly aided by computer searches of electronic databases (<https://cms.uflib.ufl.edu/>). Web of Science is particularly useful. Librarians in the Marston Science Library teach courses that will help students devise a search program and provide advice on the use of databases.

Computer Laboratory

The department has a small computer laboratory in Room 1025 providing access to word processing, databases, spreadsheets, graphics, and statistical analysis software.

Statistical Consultation

Statistical services are available to our students. The student should consult a statistician for help in designing experiments in order to make sure that the experimental results can be analyzed properly. The consulting team provides assistance with experimental design and data analysis for faculty, and their graduate students, with an active (REReport numbered project). Use the web-based system for requesting statistical consulting services. The link to this system is: <https://researchtools.ifas.ufl.edu/statisticsConsulting/index.php>

Graphics and Scientific Posters

The department has Graphics Specialists available for consultation and assistance with various types of graphics and presentations. You may print scientific posters at no charge if you are enrolled in courses in our department. Arrangements for using the facility must be coordinated with the Graphics Specialists.

Bulletin Boards

Bulletin boards displaying various bits of information are located throughout the building. A mobile white board in the administrative wing of the building is for posting current seminars and other current events. Other boards are assigned to ENSO for posting its activities. Three bulletin boards display photographs of all graduate students, on-campus faculty members, and support staff. There are numerous boards in the hallways that contain scientific posters describing research conducted by various laboratories. Student can also check an up to date calendar of milestone events with in the department: Entomology and Nematology Google Calendar.

Student Mailboxes

Each Gainesville campus graduate student in the Entomology and Nematology department is assigned a mailbox, located in room 1025, in which to receive regular business mail as well as departmental announcements and special notices. Please check your mailbox regularly. Each student is responsible for giving Cheryl Johns (Administrative Assistant) her/his forwarding address. Please do not use your departmental address for delivery of personal mail.

Stockroom

The department maintains a well-equipped stockroom (Room 3226) containing various items, especially those needed for classes. A few microscopes and projectors are available. Students (and faculty) may check out items needed for special projects. If you need a microscope or projector, please check with the stockroom attendant. Never take microscopes, microscopes light, projectors, or TVs from the teaching laboratories!

ORGANIZATIONS

Entomology-Nematology Student Organization (ENSO)

The Entomology and Nematology Student Organization (ENSO) and the Urban Entomology Society (UES) are the department's university-registered student organizations. ENSO is concerned with all areas of student involvement in the department, the university, and the community. For example, ENSO: (a) sponsors the departmental seminar series; (b) conducts community outreach programs to schools, etc.; (c) assists incoming students with orientation to Gainesville and the university; (d) keeps members informed of special campus events; (e) conveys student concerns and opinions to faculty and administrators; and (f) organizes social events. All graduate and undergraduate students upon enrollment in the department are members of ENSO.

Facebook page - <https://www.facebook.com/groups/ENSOatUF/>

Florida Entomological Society

The Florida Entomological Society is a strong force in entomology in Florida, and its journal, the Florida Entomologist, has national and international distribution. At the society's annual meetings, awards are given for the best student presentations, and student members are eligible for mini grants, travel grants and scholarships. The greatly reduced annual dues for student membership include a subscription to the Florida Entomologist. Membership application forms are available online at <http://www.flagentsoc.org/>.

Entomological Society of America

Membership in the Entomological Society of America (ESA) is recommended for all entomologists. Student membership dues include a subscription to the American Entomologist and the online ESA newsletter. Subscriptions to the society's other journals are additional if one chooses to subscribe to them. The most recent journals are available on the web for subscribers. Membership application forms are available on the web at <http://www.entsoc.org>. Some awards sponsored by the ESA (such as the John Henry Comstock Award) are available only to members.

Society of Nematologists

The Society of Nematologists (SON) is an international organization formed to advance the science of nematology in both its fundamental and economic aspects. To serve this purpose, the Society of Nematologists acts as an agency for the exchange of information, holds regular meetings, and promotes and extends knowledge in all phases of nematology. The Society operates on a nonprofit basis exclusively for the accomplishment of these educational and scientific goals.

APPENDIX A
FACULTY OF THE ENTOMOLOGY AND NEMATOLOGY DEPARTMENT

Abbreviations

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| IFAS: | Institute of Food and Agricultural Sciences, University of Florida. Includes the College of Agricultural and Life Sciences, Experiment Station, and Extension Service. |
| REC: | Research and Education Center. A branch research and education unit of IFAS. |
| FDACS/DPI: | Florida Department of Agriculture and Consumer Services, Division of Plant Industry. |
| CMAVE/USDA: | Center for Medical, Agricultural, and Veterinary Entomology, United States Department of Agriculture. |

Numbers

1. Affiliate faculty. University of Florida faculty in units outside the Entomology and Nematology Department who have joint appointments in the department.
2. Courtesy faculty. Entomologists and nematologists in administrative units outside the University of Florida who are appointed to the Entomology and Nematology Department.
3. Graduate Faculty. Faculty who have appointments to serve as full members of the Supervisory Committees of graduate students.

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- 2,3 Alborn, Hans T., Ph.D., Goteborg University, Sweden, 1988. USDA/ARS/CMAVE, PO Box 110970, Gainesville, FL 32611-0970. Chemical ecology, biology. Email: hans.alborn@usda.gov
- 2,3 Allan, Sandra A., Ph.D., University of Massachusetts. 1984. USDA/ARS/CMAVE, PO Box 110970, Gainesville, FL 32611-0970. Mosquito and fly research. Email: sandy.allen@usda.gov
- 3 Alto, Barry, Ph.D., University of Florida, 2006. UF/IFAS, Florida Medical Entomology Laboratory, 200 9th Street SE, Vero Beach, FL 32962-4657. Arbovirology. Email: bwalto@ufl.edu
- Auletta, Anthony, Ph.D., University of Minnesota, 2019. Entomology and Nematology Dept., PO Box 110620, Gainesville, FL 32611-0620. Lecturer. Email: anthonyauletta@ufl.edu
- 3 Bahder, Brian, Ph.D., Washington State University, 2013. UF/IFAS, Ft. Lauderdale REC, 3205 SW College Avenue, Ft. Lauderdale, FL 33314-7799. Insect vector biology. Email: bbahder@ufl.edu
- 3 Baldwin, Rebecca, Ph.D., University of Florida, 2005. UF/IFAS, Entomology and Nematology Dept., PO Box 110620, Gainesville, FL 32611-0620. Urban extension/informal education. Email: baldwinr@ufl.edu
- 3 Beuzelin, Julien, Ph.D., Louisiana State University, Everglades REC, 3200 E. Palm Beach Road, Belle Glade, FL 33430-4702, Insect pest management. Email: jbeuzelin@ufl.edu
- 3 Bloomquist, Jeffrey R., Ph.D., University of California, Riverside, 1984. UF/IFAS, Entomology and Nematology Dept., PO Box 100009, Gainesville, FL 32610. Insect toxicology. Email: jbquist@epi.ufl.edu

- 3 Bonning, Bryony, Ph.D., London School of Hygiene and Tropical Medicine, UF/IFAS, Entomology and Nematology Dept., PO Box 100009, Gainesville, FL 32610. Pest management. E-mail: bbonning@ufl.edu
- 3 Branham, Marc A., Ph.D., The Ohio State University, 2002. UF/IFAS, Entomology and Nematology Dept., PO Box 110620, Gainesville, FL 32611-0620. Insect mating systems and phylogenetics. E-mail: marchbran@ufl.edu
- 2,3 Brito, Janete, Ph.D., University of Florida, 2002. UF/IFAS, Entomology and Nematology Dept., PO Box 110620, Gainesville, FL 32611-0620. Nematology. Email: Janete.Brito@freshfromflorida.com
- 3 Buckner, Eva, Ph.D., University of Florida, 2014. UF/IFAS, Florida Medical Entomology Laboratory, 200 9th Street SE, Vero Beach, FL 32962-4657. Medical Entomology Extension. E-mail: eva.buckner@ufl.edu
- 3 Burgess, Edwin, Ph.D., Northern Illinois University, 2016. UF/IFAS, Entomology and Nematology Dept., PO Box 110620, Gainesville, FL 32611-0620. Veterinary Entomology. E-mail: edwinburgess@ufl.edu
- 3 Burini, Bianca C., Ph.D., University of São Paulo (USP) - SP - Brazil, 2009. UF/IFAS, Florida Medical Entomology Laboratory, 200 9th Street SE, Vero Beach, FL 32962-4657. Mosquito Arbovirus Systems. E-mail: bianca.kojin@ufl.edu
- 3 Burkett-Cadena, Nathan, Ph.D., Auburn University, 2010. UF/IFAS, Florida Medical Entomology Laboratory, 200 9th Street SE, Vero Beach, FL 32962-4657. Mosquito ecology, Email: nburkettcadena@ufl.edu
- 3 Campbell, Lindsay, Ph.D., University of Kansas, 2016. UF/IFAS, Florida Medical Entomology Laboratory, 200 9th Street SE, Vero Beach, FL 32962-4657. Medical Entomology. E-mail: lcampbell2@ufl.edu
- 3 Caragata, Eric, Ph.D., University of Queensland, 2013. UF/IFAS, Florida Medical Entomology Laboratory, 200 9th Street SE, Vero Beach, FL 32962-4657. Vector biology. Email: e.caragata@ufl.edu
- 3 Carrillo, Daniel, Ph.D., University of Florida, 2011. UF/IFAS, Tropical REC, 18905 SW 280th St, Homestead, FL 33031. IPM tropical fruit. Email: dancar@ufl.edu
- 3 Cave, Ronald D., Ph.D., Auburn University, 1987. UF/IFAS, Indian River REC, 2199 S Rock Road, Ft. Pierce, FL 34945-3138. Biological control of arthropods. Email: rdcave@ufl.edu
- 3 Chouvenec, Thomas Ph.D., University of Florida, 2009, UF/IFAS, Ft. Lauderdale REC, 3205 SW College Avenue, Ft. Lauderdale, FL 33314-7799. Urban entomology. Email: tomchouv@ufl.edu
- 3 Crow, William T., Ph.D., University of Florida, 1999. UF/IFAS, Entomology and Nematology Dept., PO Box 110620, Gainesville, FL 32611-0620. Landscape plant nematology. Email: wtr@ufl.edu
- 3 Dale, Adam, Ph.D., North Carolina State University, 2015. UF/IFAS, Entomology and Nematology Dept., PO Box 110620, Gainesville, FL 32611-0620, Turfgrass, ornamental and landscape entomology, IPM. Email: agdale@ufl.edu
- 3 Daniels, Jaret C., Ph.D., University of Florida, 1999. UF/IFAS, Entomology and Nematology Dept., PO Box 110620, Gainesville, FL 32611-0620. Insect ecology and conservation. Email: jcdnls@ufl.edu
- 3 Desaegeer, Johan, Ph.D., University of Leuven (Belgium), 2001. Gulf Coast REC, 14625 CR 672, Wimauma, FL 33598. Fruit and vegetable nematology. Email: jad@ufl.edu

- 3 Diepenbrock, Lauren, Ph.D., University of Missouri, UF/IFAS, Citrus REC, 700 Experiment Station Road, Lake Alfred, FL 33850-2299. IPM and insect ecology. Email: ldiepenbrock@ufl.edu
- 3 Duncan, Larry W., Ph.D., University of California-Riverside, 1983. UF/IFAS, Citrus REC, 700 Experiment Station Road, Lake Alfred, FL 33850-2299. Nematology. Email: lwduncan@ufl.edu
- 3 Ellis, James D., Jr., Ph.D., Rhodes University (Grahamstown, South Africa), 2004. UF/IFAS, Entomology and Nematology Dept., PO Box 110620, Gainesville, FL 32611-0620. Sociobiology, honey bee pathology, ecology, and behavior. Email: jdellis@ufl.edu
- 3 Esquivel Isaac L., Ph.D., Texas A&M University, 2020. North Florida REC, 155 Research Road, Quincy, FL 32351-5677, Agroecosystem Entomology. Email: isaac.esquivel@ufl.edu
- 2,3 Geden, Christopher J., Ph.D., University of Massachusetts, 1984. USDA/ARS/CMAVE, PO Box 110970, Gainesville, FL 32611-0970. Biocontrol; muscoid fly parasitoids. Email: chris.geden@usda.gov
- 3 Gondhalekar, Ameya, Ph.D., University of Florida, Gainesville, 2011, UF/IFAS, Entomology and Nematology Dept., PO Box 110620, Gainesville, FL 32611-0620, Urban Entomology, Urban Pest Management and Insect Toxicology, Email: ameygon@ufl.edu
- 3 Grabau, Zane, Ph.D., University of Minnesota, 2015. Entomology and Nematology Dept., PO Box 110620, Gainesville, FL 32611-0620. Field crops nematology. Email: zgrabau@ufl.edu
- 3 Hahn, Daniel A., Ph.D., University of Arizona, 2003. UF/IFAS, Entomology and Nematology Dept., PO Box 110620, Gainesville, FL 32611-0620. Insect physiology, biochemistry and evolutionary ecology. Email: dahahn@ufl.edu
- 3 Hahn, Philip G., Ph.D., University of Wisconsin-Madison, 2015. Entomology and Nematology Dept. PO Box 110620, Gainesville, FL 32611-0620. Insect Ecology. Email: hahnp@ufl.edu
- 3 Hajihassani, Abolfazl, Ph.D., University of Manitoba, Canada, 2016. UF/IFAS, Ft. Lauderdale REC, 3205 SW College Avenue, Ft. Lauderdale, FL 33314-7799. Nematology Email: ahajihassani@ufl.edu
- 2,3 Halbert, Susan E., Ph.D., University of Illinois, 1979. FDACS/DPI, PO Box 110980, Gainesville, FL 32611-0980. Virus vector; aphid biology; biological control; systematics. Email: Susan.Halbert@freshfromflorida.com
- 2,3 Handler, Alfred M., Ph.D., University of Oregon, 1977. USDA/ARS/CMAVE, PO Box 110970, Gainesville, FL 32611-0970. Developmental genetics. Email: al.handler@usda.gov
- 1,3 Hix, Raymond L., Ph.D., University of Arkansas, 2000. Florida A&M University, Center for Biological Control, 306-C Perry Paige Building, Tallahassee, FL 32307. Biological control. Email: raymond.hix@famu.edu
- 3 Hodges, Amanda, Ph.D., University of Georgia, 2002. UF/IFAS, Entomology and Nematology Dept., PO Box 110620, Gainesville, FL 32611-0620. Biosecurity. Email: achodges@ufl.edu
- 2,3 Hodges, Greg, Ph.D., University of Georgia, 2002. FDACS/DPI, PO Box 110980, Gainesville, FL 32611-0980. Scale taxonomy. Email: Greg.Hodges@freshfromflorida.com
- 2,3 Hogsette, Jerome A., Jr., Ph.D., University of Florida, 1979. USDA/ARS/CMAVE, PO Box 110970, Gainesville, FL 32611-0970. Control techniques of house flies and stable flies. Email: jerry.hogsette@usda.gov

- 3 Hulcr, Jiri, Ph.D., Michigan State University, 2009, School of Forest Resources and Conservation and Entomology and Nematology, PO Box 110620, Gainesville, FL 32611-0620. Forest entomology, Email: hulcr@ufl.edu
- 3 Jack, Cameron., Ph.D., University of Florida, 2020. UF/IFAS, Entomology and Nematology Dept., PO Box 110620, Gainesville, FL 32611-0620. Apiculture. E-mail: cjack@ufl.edu
- 1,3 Kanga, Lambert, Ph.D., Texas A&M University, 1994. Florida A&M University, College of Engineering Sciences, Technology, and Agriculture, 406 Perry Paige Building, Tallahassee, FL 32307. Insecticide toxicology and IPM. Email: lambert.kanga@famu.edu
- 3 Kawahara, Akito, Ph.D., University of Maryland, McGuire Center for Lepidoptera Research, PO Box 117800, Gainesville, FL 32611-8525. Lepidoptera phylogenetics, systematics, fossils, life history evolution and genomics. Email: kawahara@flmnh.ufl.edu
- 3 Kern, William H., Ph.D., University of Florida, 1993. UF/IFAS, Ft. Lauderdale REC, 3205 SW College Avenue, Ft. Lauderdale, FL 33314-7799. Urban entomology. Email: whk@ufl.edu
- Kluiters, Georgette, Ph.D., University of Liverpool, UK, 2014, UF/IFAS, Entomology and Nematology Dept., PO Box 110620, Gainesville, FL 32611-0620, Distance Education, vector-borne diseases of animals, Email: g.kluiters@ufl.edu
- 3 Lahiri, Sriyanka, Ph.D., North Carolina State Univ., 2014. Gulf Coast REC, 14625 CR 672, Wimauma, FL 33598. Fruit crop pests. E-mail: lahiris@ufl.edu
3. Lee, Tae Young Henry, PhD., The Ohio State University, 2022, Wooster, OH UF/IFAS, Entomology and Nematology Dept., PO Box 110620, Gainesville, FL 32611-0620. Urban Entomology. Email: lee.t1@ufl.edu
- 3 Lee, Yoosook, Ph.D., University of California Los Angeles, 2006. UF/IFAS, Florida Medical Entomology Laboratory, 200 9th Street SE, Vero Beach, FL 32962-4657. Molecular ecology, population genomics, bioinformatics. E-mail: yoosook.lee@ufl.edu
- 3 Leppla, Norman, C. Ph.D., University of Arizona, 1972. UF/IFAS, Entomology and Nematology Dept., PO Box 110620, Gainesville, FL 32611-0620. Biocontrol; ecology; insect behavior. Email: ncleppla@ufl.edu
- 3 Liburd, Oscar E. ,Ph.D., University of Rhode Island, 1997. UF/IFAS, Entomology and Nematology Dept., PO Box 110620, Gainesville, FL 32611-0620. Fruit and vegetable IPM. Email: oeliburd@ufl.edu
- 3 Lord, Cynthia C. Ph.D., Princeton University, 1991. UF/IFAS, Florida Medical Entomology Laboratory, 200 9th Street SE, Vero Beach, FL 32962-4657. Population dynamics. Email: ccl@ufl.edu
- 3 Lucky, Andrea, Ph.D., University of California, Davis, 2010, UF/IFAS, Entomology and Nematology Dept., PO Box 110620, Gainesville, FL 32611-0620, insect systematics and biogeography, Email: alucky@ufl.edu
- 3 Mallinger, Rachel, Ph.D., University of Wisconsin – Madison, 2015, UF/IFAS, Entomology and Nematology Dept., PO Box 110620, Gainesville, FL 32611-0620, native pollinator conservation, Email: rachel.mallinger@ufl.edu

- 3 Martin, Estelle. Ph.D., University Pierre et Marie Curie, 2010. F/IFAS, Entomology and Nematology Dept., PO Box 110620, Gainesville, FL 32611-0620. Vector biology. E-mail: estellemartin@ufl.edu
- 3 Martini, Xavier, Ph.D., University of Toulouse, 2010. North Florida REC, 155 Research Road, Quincy, FL 32351-5677, Biology and evolution. Email: vmartini@ufl.edu
- 3 McAuslane, Heather J., Ph.D., Texas A&M University, 1990. UF/IFAS, Entomology and Nematology Dept., PO Box 110620, Gainesville, FL 32611-0620. Chemical ecology and host plant resistance. Email: hjmca@ufl.edu
- 1,3 Miller, Jacqueline Y., Ph.D., University of Florida, 1986. McGuire Center for Lepidoptera Research, PO Box 117800, Gainesville, FL 32611-8525. Lepidoptera systematics. Email: jmiller@flmnh.ufl.edu
- 3 Minter-Killian, Carey, Ph.D., University of Arkansas, 2012. Indian River Research and Education Center, 2199 South Rock Road, Ft. Pierce, FL 34945-3138. Weed biological control. Email: c.minterkillian@ufl.edu
- 3 Mongue, Andrew J., Ph.D., University of Kansas, 2019. Entomology and Nematology Dept., PO Box 110620, Gainesville, FL 32611-0620. Molecular Ecology. Email: andrew.mongue@ufl.edu
- 3 Mou, De-Fen, PhD, University of Florida. UF/IFAS, Everglades REC, 3200 E. Palm Beach Road, Belle Glade, FL 33430-4702. Email: defenmou@ufl.edu
- 2,3 Oi, David H., Ph.D., University of California-Riverside, 1987. USDA/ARS/CMAVE, PO Box 110970, Gainesville, FL 32611-0970. IPM on fire ants. Email: david.oi@usda.gov
- 3 Oi, Faith M., Ph.D., University of Florida, 1994. UF/IFAS, Entomology and Nematology Dept., PO Box 110620, Gainesville, FL 32611-0620. Urban entomology, termites. Email: foi@ufl.edu
- 3 Osborne, Lance S., Ph.D., University of California-Davis, 1980. UF/IFAS, Mid-Florida REC, 2725 Binion Road, Apopka, FL 32703-8504. Pest management on ornamental plants, biological control of insects and mites. Email: lsosborne@ufl.edu
- 3 Paula-Moraes, Silvana, Ph.D., University of Nebraska, 2012. West Florida REC, 5988 Hwy 90, Bldg. 4900, Milton, FL 32583. Crop pest management. E-mail: paula.moraes@ufl.edu
- 3 Pelz-Stelinski, Kristen, Ph.D., Michigan State University, 2008. Citrus REC, 700 Experiment Station Road, Lake Alfred, FL 33850-2299. Vector biology and insect microbial community ecology. Email: pelzstelinski@ufl.edu
- R Pescador, Manuel L., Ph.D., Florida State University, 1976. Florida A&M University, Dept. of Entomology/Water Studies, Tallahassee FL 32307. Biosystematics; ecology; phylogeny; zoogeography. Email: manipes@ufl.edu
- 3 Porazinska, Dorota, Ph.D. University of Florida, 1998. UF/IFAS, Entomology and Nematology Dept., PO Box 110620, Gainesville, FL 32611-0620. Nematology. E-mail: dorotalp@ufl.edu
- 3 Quinn, Nicole F., Ph.D., Virginia Tech, 2019. Indian River Research and Education Center, 2199 South Rock Road, Ft. Pierce, FL 34945-3138. Biological Control. Email: nicole.quinn@ufl.edu
- 3 Qureshi, Jawwad A., Ph.D., Kansas State University, 2003, UF/IFAS Indian River REC, IPM, Email: jawwadq@ufl.edu

- 3 Reeves, Lawrence, Ph.D., University of Florida, 2017. UF/IFAS, Florida Medical Entomology Laboratory, 200 9th Street SE, Vero Beach, FL 32962-4657. Medical Entomology. E-mail: lereeves@ufl.edu
- 3 Revynthi, Alexandra, Ph.D., University of Amsterdam, 2017. UF/IFAS, Tropical REC, 18905 SW 280th Street, Homestead, FL 33031-3314. IPM and Biological Control. E-mail: arevynthi@ufl.edu
- 3 Rey, Jorge R., Ph.D., Florida State University, 1979. UF/IFAS, Florida Medical Entomology Laboratory, 200 9th Street SE, Vero Beach, FL 32962-4657. Wetlands ecology. Email: jrr@ufl.edu
- 3 Rogers, Michael E., Ph.D., University of Kentucky, 2003. UF/IFAS, Citrus REC, 700 Experiment Station Road, Lake Alfred, FL 33850-2299. Integrated pest management of citrus pests. Email: mrogers@ufl.edu
- 2,3 Rohrig, Eric, Ph.D., University of Florida, 2010. Division of Plant Industry, Gainesville. Biological control. E-mail: Eric.Rohrig@freshfromflorida.com
- 3 Scheffrahn, Rudolf H., Ph.D., University of California-Riverside, 1984. UF/IFAS, Ft. Lauderdale REC, 3205 SW College Avenue, Ft. Lauderdale, FL 33314-7799. Biology and control of termites. Email: rhsc@ufl.edu
- 3 Seal, Dakshina R., Ph.D., University of Georgia, 1990. UF/IFAS, Tropical REC, 18905 SW 280th Street, Homestead, FL 33031-3314. Insect ecology, IPM. Email: dseal@ufl.edu
- 2,3 Shatters, Robert, Ph.D., USDA, ARS, US. Hort. Res. Lab, 2001 South Rock Rd., Ft. Pierce, FL 34945. Citrus pests. Robert.shatters@usda.gov
- 2,3 Shirk, Paul D., Ph.D., Texas A&M University, 1978. USDA/ARS/CMAVE, PO Box 110970, Gainesville, FL 32611-0970. Insect endocrinology and molecular biology. Email: paul.shirk@usda.gov
- 3 Short, Andrew, Ph.D., Entomology, Cornell University, Ithaca, NY, 2007. UF/IFAS, Entomology and Nematology Dept., PO Box 110620, Gainesville, FL 32611-0620. Insect Biodiversity. Email: andrew.short@ufl.edu
- 2,3 Skelley, Paul E., Ph.D., University of Florida, 1994. FDACS/DPI, PO Box 110980, Gainesville, FL 32611-0980. Insect taxonomy; Coleoptera. Email: Paul.Skelley@freshfromflorida.com
- 3 Smith, Hugh A., Ph.D., University of Florida, 1999. Gulf Coast REC, 14625 CR 672, Wimauma, FL 33598. Pest management and biological control in tomatoes. Email: hughasmith@ufl.edu
- 2,3 Smith, Trevor, Ph.D., University of Florida, FDACS/DPI, PO Box 110980, Gainesville, FL 32611-0980, Email: trevor.smith@freshfromflorida.com
- 2,3 Sourakov, Andrei, Ph.D. McGuire Center for Lepidoptera Research, PO Box 117800, Gainesville, FL 32611-8525. Butterflies. Email: asourakov@flmnh.ufl.edu
- 3 Stelinski, Lucasz L., Ph.D., Michigan State University, 2005. UF/IFAS, Citrus REC, 700 Experiment Station Road, Lake Alfred, FL 33850-2299. Integrated pest management, applied chemical ecology, insect behavior. Email: stelinski@ufl.edu
- 1,3 Stevens, Bruce R., Ph.D., Illinois State University, 1977. UF, College of Medicine, Dept. of Physiology and Functional Genomics, PO Box 100274, Gainesville, FL 32611-0274. Physiology and molecular biology. Email: stevens@phys.med.ufl.edu

- 3 Su, Nan-Yao, Ph.D., University of Hawaii, 1982. UF/IFAS, Ft. Lauderdale REC, 3205 SW College Avenue, Ft. Lauderdale, FL 33314-7799. Biology and control of termites; structural and household pests. Email: nysu@ufl.edu
- 3 Swale, Daniel, Ph.D., University of Florida, 2012, UF/IFAS, Emerging Pathogens Institute, Entomology and Nematology Dept., 2055 Mowry Road, Gainesville FL 32610, insect toxicology and neurophysiology, Email: dswale@ufl.edu
- 3 Taylor, Lisa, Ph.D., Arizona State University, UF/IFAS, Entomology and Nematology Dept., PO Box 110620, Gainesville, FL 32611-0620. Spider communication, Email: lisa.taylor@ufl.edu
- 3 Thongsripong, Panpim, Ph.D. UF/IFAS, Florida Medical Entomology Laboratory, 200 9th Street SE, Vero Beach, FL 32962-4657
- 2,3 Vander Meer, Robert K., Ph.D., Pennsylvania State University, 1972. USDA/ARS/CMAVE, PO Box 110970, Gainesville, FL 32611-0970. Chemical ecology. Email: bob.vandermeer@ars.usda.gov
- 3 Weeks, Jennifer. PhD, University of Arizona, 2002. Entomology and Nematology Dept., PO Box 110620, Gainesville, FL 32611-0620. Ecology. Email: jenweeks1@ufl.edu
- 2,3 Wheeler, Gregory S. Ph.D., University of Florida, 1989. USDA/ARS, Invasive Plant Research Laboratory, 3205 College Avenue, Ft. Lauderdale, FL 33314. Nutritional and chemical ecology. Email: wheeler@usda.gov
- 1,3 Wilmott, Keith R., Ph.D., University of Florida, 1999. McGuire Center for Lepidoptera Research, PO Box 117800, Gainesville, FL 32611-8525. Systematics and biology of Lepidoptera. Email: kwilmott@flmnh.ufl.edu
- 3 Wong, Adam, Ph.D., Cornell University, 2013. UF/IFAS, Entomology and Nematology Dept., PO Box 110620, Gainesville, FL 32611-0620. Insect-microbe interactions. E-mail: adamcnwong@ufl.edu

APPENDIX B
GRADUATE COURSES

Courses may be cancelled and/or scheduled at the discretion of the instructor:

Day and time subject to change

Check Registrar's [Schedule of Courses](#) for up-to-date course offerings.

For [descriptions of courses](#), see the syllabi posted on our web site.

| COURSE # | TITLE | METHOD | CREDIT | TERM | PROFESSOR |
|-----------|--|-------------|--------|-------------------------------|-------------------------|
| ALS 5156 | | Web | 3 | F, S | Weeks |
| ALS 6046 | Grant Writing | Web | 2 | S | Daniels |
| ALS 6166 | Exotic Species & Biosecurity Issues | Web | 3 | F | TBD |
| ALS 6502C | Models in Agriculture and Natural Resources Linear Models in Agriculture and Natural Resources | Live | 3 | S | Hahn, P |
| ALS 6935 | Topics in Biol. Invasions | Web | 3 | S | TBD |
| ALS 6942 | Risk Assess. & Manag. Principles of Plant Pest Risk Assessment and Management | Live | 3 | F | Hodges |
| ENY 5006 | Graduate Survey of Entomology | Live Web | 2 2 | F, S F, S, SS C | TBD/Auletta/ Baldwin |
| ENY 5006L | Graduate Survey of Entomology Laboratory | Live Web | 1 1 | F, S, SS C F, S, SS C | Staff Baldwin |
| ENY 5160C | Survey of Science with Insects | Web | 3 | S, SS C | Weeks (not for majors) |
| ENY 5212 | Insects & Wildlife | Web | 3 | F | Martin |
| ENY 5223C | Biology and ID of Urban Pests | Web | 3 | F | Lee, T. |
| ENY 5226C | Princ Urban Pest Mgt | Web | 3 | S | Lee, T. |
| ENY 5241 | Biological Control | Web | 4 | S (even) | Quinn |
| ENY 5332 | Urban Vert Pest Management | Web | 2 | S | TBD |
| ENY 5405 | Insect Vect Plant Path | Web | 3 | S (odd) | TBD |
| ENY 5516 | Turf & Ornamental Entomology | Web | 3 | F | Lee, T. |
| ENY 5566 | Tropical Entomology | Live | 3 | SS A (odd) | Quinn |
| ENY 5611 | Immature Insects | Live | 4 | SS C (odd) | Branham |
| ENY 6166 | Insect Classification | Live | 3 | F S | Lucky/Branham |
| ENY 6166 | Insect Classification | Web | 3 | F, SS C | Kluiters |
| ENY 6203 | Insect Ecology | Live / Web | 3 | F | P. Hahn |
| ENY 6203L | Insect Ecology Lab | Live / Web | 1 | F | P. Hahn |
| ENY 6206 | Ecology of Vector-borne Disease | Web | 2 | F | Burkett-Cadena |
| ENY 6207 | Eco Cons Pollinator | Live / Web | 3 | F (in person) SSC (online) | Mallinger |

| | | | | | |
|-----------|--|------------------------------|------------------|----------|---------------------------|
| ENY 6401 | Insect Physiology | Live / Web | 3 | S | D. Hahn |
| ENY 6401L | Insect Physiology Lab | Live | 1 | S | D. Hahn |
| ENY6406 | Molecular Biology of Insects and Nematodes | Live | | F (even) | Wong |
| ENY 6454 | Behavioral Ecology and Systematics | Live | 3 | S | Branham |
| ENY 6456C | Social Insects | Live | 3 | F | Auletta/Lucky |
| ENY 6572 | Apiculture 1 | Web | 3 | F/S/SS | Jack |
| ENY 6575 | Apiculture 2 | Web | 3 | F/S/SS | Jack |
| ENY 6591C | Adv. Mosquito Iden. | Live | 3 | S | Burkett-Cadena |
| ENY 6593 | Adv. Mosquito Biol. | Web | 3 | S | Alto |
| ENY 6651C | Insect Toxicology | Web | 3 | F | Jack |
| ENY 6665 | Adv Medical and Veterinary Entomology | Web: Spring Live: Fall | 3 | F S | Burgess |
| ENY 6665L | Adv Medical and Veterinary Entomology Lab | Live | 1 | F | Burgess |
| ENY 6706 | Adv Forensic Entomology | Web | 3 | F | Byrd |
| ENY 6821 | Insect Microbiology | Web | 3 | S (even) | Wong |
| ENY 6905 | Problems in Entomology | | 1-4; max 12 | F, S, SS | Staff |
| ENY 6910 | Supervised Research | | 1-5; max 5 | F, S, SS | Staff |
| ENY 6932 | Special Topics in Entomology | | 1-2; max 4 | F, S, SS | Staff |
| ENY 6932 | Graduate Professional Development Seminar | Live/Web | 1 | F | Staff |
| ENY 6934 | Selected Studies in Entomology | | 1-4; max 8 | F, S, SS | Staff |
| ENY 6940 | Supervised Teaching | | 1-5; max 5 | F, S, SS | Staff |
| ENY 6942 | Insect Diagnostics | Live | 2 | F | L. Buss |
| ENY 6943 | Entomology Internship | | 1-3; max 6 | F, S, SS | Staff (not for majors) |
| ENY 6944 | Entomology Extension Internship | | 1-3; max 6 | F, S, SS | Staff (not for majors) |
| ENY 6971 | Masters Research | | 1-9 per semester | F, S, SS | Staff |
| ENY 7979 | Advanced Research | | 1-9 per semester | F, S, SS | Staff |
| ENY 7980 | Doctoral Research | | 1-9 per semester | F, S, SS | Staff |
| IPM 6021 | Insect Pest and Vector Mgt | Web | 3 | SS C | TBD |
| NEM 5004C | Grad Survey Nematol. | Web | 3 | S | Alake |
| NEM 5707C | Plant Nematology | Web | 3 | F (even) | Hajihassani |

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|----------|---|-----------|---------------------|----------|---------------------------|
| NEM 6101 | Nematode Morphology and Anatomy | Web | 2 | F (even) | Porazinska |
| NEM6101L | Nematode Morphology and Anatomy Lab | Live | 2 | F (even) | Porazinska |
| NEM 6102 | Nematode Taxonomy and Molecular Phylogeny | Live | 2 | S (odd) | Porazinska |
| NEM6102L | Nematode Taxonomy and Molecular Phylogeny Lab | Live | 2 | S (odd) | Porazinska |
| NEM 6708 | Field Plant Nematology | Live | 2; max 4 | S (even) | Crow |
| NEM 6905 | Problems in Nematology | | 1-4; max 8 | F, S, SS | Staff |
| NEM 6931 | Nematology Seminar | Live | 1; max 6 | S | Staff |
| NEM 6932 | Special Topics in Nematology | | 1-4; max 4 | F, S, SS | Staff |
| NEM 6934 | Selected Studies | | 1-4; max 4 | F, S, SS | Staff |
| NEM 6940 | Supervised Teaching | | 1-5; max 5 | F, S, SS | Staff |
| NEM 6942 | Nematode Diagnostics | Live | 2 | F even | Crow |
| NEM 6943 | Nematode Internship | | 1-3; max 6 | F, S, SS | Staff (not for majors) |
| NEM 6971 | Masters Research | | 1-9 per semester | F, S, SS | Staff |
| NEM 7979 | Advanced Research | | 1-9 per semester | F, S, SS | Staff |
| NEM 7980 | Doctoral Research | | 1-9 per semester | F, S, SS | Staff |
| PMA 5205 | Citrus Pest Mgmt. | Live/Zoom | 3 | F | Duncan |
| PMA 6228 | Field Tech. in IPM | Live | 2 | SS B | Liburd |

APPENDIX C

TENTATIVE TOPICS FOR GRADUATE STUDENT SEMINAR TOPICS FOR CALENDAR YEARS 2025-2026

Other topics may come available and the ones listed may not necessarily be offered. Please check with the professor named and/or the graduate advisor a semester or two before you plan to take the seminar to make sure it is still being offered.

Fall 2025

Su - Critical Review of Scientific Literature

Carrillo and Revynthi - Phytophagous and Predacious Mites (every 2 years)

Thongsripong - Interdisciplinary and One Health Approaches in Combating Vector-Borne Diseases (every 2 years)

Spring 2026

TBA – Nematology

Desaeger – Nematode Management (every 2 years)

Swale - Emerging Pathogens Institute Seminar (every year)

Lord - Introduction to process-based modeling

Summer 2026

Porazinska - Research Advances in Nematode Ecology

Fall 2026

Lee & Mongue – Population Genomics and its Applications (Every 2 Years)

APPENDIX D

ENTOMOLOGY AND NEMATOLOGY DEPARTMENT PH.D. AND M.S. GRADUATE STUDENT RESEARCH PROPOSAL EVALUATION FORM

Student's Name _____ Major Professor _____

Semester: Fall Spring Summer (Circle One) _____ Date _____

| | | |
|---------------------|---------------------|--|
| Proposal | Introduction: | Review of relevant literature, importance of proposed research, clear hypotheses and research objectives? |
| | Research Design: | Clearly explained, variables measured (and how), experiments replicated, appropriate statistical methods indicated? |
| | Expected Results: | Preliminary data presented (if available)? Will proposed research lead to new insights, tools, or approaches for research topic? |
| | Potential Problems: | Problem areas identified and alternative strategies considered. |
| | Research Schedule: | Timetable for experiments, qualifying exam and draft of dissertation presented. |
| | Funding: | Resources provided by advisor adequate and/or student has identified other potential funding sources to support the research. |
| | Collaborations: | Other collaborating faculty in the Department, University, industry, government or foreign scientists acknowledged. |
| Presentation | | |
| Organization | Sequence: | Proposal elements presented in logical and efficient manner. |
| | Time: | Allotted time used effectively. |
| | | |
| Visual Aids | Content: | Suitable for subject matter. |
| | Readability: | Appropriate font size and amount of text per slide. |
| | | |
| Delivery | Physical: | Good eye contact, vocal clarity, and expression. |
| | Verbal: | Proper grammar, clear explanation of proposal information. |
| | Preparation: | Relevant answers to questions and responds to constructive criticism. |

Comments: (Continue on back of page)

**APPENDIX F
PROGRAM OF STUDY**

NAME: _____ UFID: _____

DEGREE: _____ CERTIFICATE: _____

MAJOR COURSEWORK (ENY-NEM ONLY):

| Course # | Course Title | Hours | Grade | Term (To Be) Completed | Institution |
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FOUNDATION AND SUPPORTING (ALS-BCH-STA-Etc...)

| Course # | Course Title | Hours | Grade | Term (To Be) Completed | Institution |
|----------|--------------|-------|-------|---------------------------|-------------|
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We recommend the above program be approved:

Graduate Student

Graduate Coordinator

Student's Supervisory Committee Signatures and Date:

Committee Chair

Committee Member

Committee Member

Committee Member

Committee Member

Appendix G
GRADUATE STUDENT SEMESTER EVALUATION
ENTOMOLOGY AND NEMATOLOGY DEPARTMENT
Semester:_____

SUPERVISORY COMMITTEE CHAIR: _____

GRADUATE STUDENT:_____

ASSISTANTSHIP DUTIES: _____

| | Poor Needs improvement | Average Meets expectations | Excellent Exceeds expectations | N/A |
|--|------------------------------|----------------------------------|--------------------------------------|-----|
| Professionalism • Exhibits ethical behavior at all times | | | | |
| • Works collegially and cooperatively with others in the lab | | | | |
| • Respects common use departmental space and equipment | | | | |
| • Respects departmental staff, policies, and procedures | | | | |
| Academic/Research • Making progress with required and elective courses | | | | |
| • Shows initiative in exploring appropriate literature | | | | |
| • Making expected progress in research | | | | |
| • On-track with Dept. and UF requirements (e.g., Committee Formation, Plan of Study, Proposal, Qualifying Exams) | | | | |
| Assistantship/Work duties • Performs teaching responsibilities timely and competently | | | | |
| • Completes other assigned responsibilities on time | | | | |
| • Complies with work schedule established by student and supervisor | | | | |
| Service • Service to the discipline (department/REC, university, state, regional or national societies) | | | | |
| • Service to the community (outreach, school tours, Extension) | | | | |

- Most students are likely to be average in many categories – you are pleased with their progress and they are on par with your previous and current students.
- Some students will be excellent in many categories – going above and beyond what you have come to expect from graduate students. Perhaps they are in the top 10% of students you have mentored.
- Some students will have poor evaluations in several categories. These students have specific deficiencies that you have catalogued and will need to show some improvement over the next semester. Perhaps they fall in the lowest 10% of students you have mentored.

Graduate Student Self-evaluation (Mandatory):

Assistantship/Work responsibilities:

What assistantship duties did you perform this semester? _____

Academic and research progress (your graduate degree)

Has your Supervisory Committee been appointed? _____ (Y/N)

Date (if this semester, otherwise leave blank): _____

Has your Program of Study been approved? _____ (Y/N)

Date (if this semester, otherwise leave blank): _____

Has the Committee approved your thesis/dissertation research proposal and have you presented it?

_____ (Y/N)

Date (if this semester, otherwise leave blank): _____

Have you completed your teaching responsibilities? _____ (Y/N)

Semester: _____

List courses and grades for this semester. _____

What thesis/dissertation work did you do this term? _____

List scientific presentations, publications submitted, and meetings attended this semester. _____

What outreach or service did you do this semester to meet the departmental requirement (2 per semester)?

What are your future career goals? What skills did you learn this semester and what do you want to learn to meet this goal? _____

Are there any impediments to your success in your program that you would like to disclose? If you are not comfortable disclosing them here, please reach out to Dr. Branham or Ms. Alyanaya.

Comments by Supervisory Committee Chair (Mandatory):

Assistantship/Work responsibilities: _____

Academic and research progress (your graduate degree) _____

Progress towards previous semester goals _____

Areas for improvement _____

Research and academic goals for next semester _____

Professional development activities/skills to acquire _____

Supervisor: _____ Date: _____

Supervisor: _____ Date: _____

APPENDIX H

Assessments

To be filled out by all committee members, discussed with the student, and returned to the Student Services office.

Research Proposal Assessment for Committee Members

PhD Qualifying Exam Assessment

M.S. Final Exam Assessment

M.S. Final Defense and Written Thesis Assessment

PhD Final Defense and Dissertation Assessment

Research Proposal Presentation (Oral and Written) (rev. 10/18)

Student _____ Date _____ Committee Member _____

| Student Learning Outcome | | SCORE | SCALE |
|--|---|-------|---|
| SLO 3 Written skills ¹ | Context and purpose | | 4 = Exemplary 3 = Proficient 2 = Marginal 1 = Unacceptable |
| | Content development | | |
| | Conventions | | |
| | Sources and evidence | | |
| | Syntax and mechanics | | |
| | SLO 3 Written skills ¹ SUM | | |
| Student Learning Outcome | | SCORE | SCALE |
| SLO 3 Oral presentation skills ² | Organization | | 4 = Exemplary 3 = Proficient 2 = Marginal 1 = Unacceptable |
| | Language | | |
| | Delivery | | |
| | Supporting material | | |
| | Central message | | |
| | SLO 3 Oral presentation skills² SUM | | |
| Student Learning Outcome | | SCORE | SCALE |
| SLO 4 –M.S. SLO 5 – PhD Critical thinking and application of inquiry and analysis ³ | Clear statement of research problem and motivation | | 4 = Exemplary 3 = Proficient 2 = Marginal 1 = Unacceptable |
| | Value of research demonstrated | | |
| | Knowledge of literature | | |
| | Well-defined hypotheses or objectives | | |
| | Sound methods/tools | | |
| | SLO 4 –M.S. SLO 5 – PhD Critical thinking SUM | | |

SLO 3 (oral communication skills) = _____ (maximum 20, minimum 5)

SLO 3 (written communication skills) = _____ (maximum 20, minimum 5)

SLO 4 (M.S.) or 5 (PhD) (critical thinking ability) = _____ (maximum 20, minimum 5)

1 Taken from Written Communication VALUE Rubric – Association of American Colleges and Universities

2 Taken from Oral Communication VALUE Rubric - Association of American Colleges and Universities

3 Taken from Inquiry and Analysis VALUE Rubric - Association of American Colleges and Universities

Additional comments: _____

SLO Achievement: These scores do not determine whether the student passes or fails the research proposal presentation. They are for the student and supervisor's information to determine areas of strength and weakness that can be remedied before the conduct of the research and completion of the thesis or dissertation. All committee members should fill out a form and copies should be delivered to the Graduate Coordinator's office for deposit in the student's file. Supervisory committee chair - please share the results of this evaluation with your student, either summarizing their strengths/weaknesses or showing the individual score sheets.

Rubric for scoring

| Student Learning Outcome | | 4 - Exemplary | 3 - Proficient | 2- Marginal | 1 - Unacceptable |
|--|-----------------------------|--|---|---|---|
| SLO 3 Written skills ¹ (max. 20 points, min. 5 points) | Context and purpose | <input type="checkbox"/> Demonstrates a thorough understanding of context, audience, and purpose that focuses all elements of the work. | <input type="checkbox"/> Demonstrates adequate consideration of context, audience and purpose, and a clear focus of the work. | <input type="checkbox"/> Demonstrates awareness of context, audience, and purpose of the work. | <input type="checkbox"/> Does not demonstrate attention to context, audience, and purpose of the work. |
| | Content development | <input type="checkbox"/> Consistently uses appropriate, relevant and compelling content to illustrate mastery of the subject, conveying the writer's understanding. | <input type="checkbox"/> Consistently uses appropriate, relevant, and compelling content to explore ideas within the subject. | <input type="checkbox"/> Use appropriate and relevant content to develop and explore ideas throughout most of the work. | <input type="checkbox"/> Does not use appropriate and relevant content to develop simple ideas in some parts of the work. |
| | Conventions | <input type="checkbox"/> Detailed attention to and successful execution of all conventions specific to the discipline (organization, content, presentation, formatting, style) | <input type="checkbox"/> Consistent use of important conventions specific to the discipline. | <input type="checkbox"/> Follows expectations appropriate for specific discipline for organization, content and presentation. | <input type="checkbox"/> Does not use a consistent system for basic organization and presentation. |
| | Sources and evidence | <input type="checkbox"/> Demonstrates skillful use of high-quality, credible, relevant sources to develop ideas that are appropriate. | <input type="checkbox"/> Demonstrates consistent use of credible, relevant sources to support ideas. | <input type="checkbox"/> Demonstrates an attempt to use credible and/or relevant sources to support ideas. | <input type="checkbox"/> Does not use sources to support ideas. |
| | Syntax and mechanics | <input type="checkbox"/> Uses language that skillfully communicates meaning to readers with clarity and fluency, and is virtually error-free. | <input type="checkbox"/> Uses straightforward language that generally conveys meaning to readers and has few errors. | <input type="checkbox"/> Uses language that generally conveys meaning to readers with clarity but may include errors. | <input type="checkbox"/> Uses language that sometimes impedes meaning because of errors in usage. |

| Student Learning Outcome | | 4 - Exemplary | 3 - Proficient | 2- Marginal | 1 - Unacceptable |
|--|---|---|---|---|---|
| SLO 3 Oral presentation skills ² (max. 20 points, min. 5 points) | Organization (specific introduction and conclusion, sequence of material in body, and transitions) | <input type="checkbox"/> Organizational pattern is clearly and consistently observable, is skillful, and makes the content of the presentation cohesive | <input type="checkbox"/> Organizational pattern is clearly and consistently observable | <input type="checkbox"/> Organizational pattern is intermittently observable | <input type="checkbox"/> No organizational pattern observable |
| | Language | <input type="checkbox"/> Language choices enhance the effectiveness of the presentation and are appropriate for the audience. | <input type="checkbox"/> Language choices generally support the effectiveness of the presentation and are appropriate for the audience. | <input type="checkbox"/> Language choices partially support the effectiveness of the presentation and are appropriate for the audience. | <input type="checkbox"/> Language choices are unclear and minimally support the effectiveness of the presentation and are not appropriate for the audience. |
| | Delivery (posture, use of pointer, eye contact, vocal expressiveness) | <input type="checkbox"/> Delivery techniques make the presentation compelling, and speaker appears polished and confident. | <input type="checkbox"/> Delivery techniques make the presentation interesting and speaker appears comfortable. | <input type="checkbox"/> Delivery techniques make the presentation understandable, and speaker appears tentative. | <input type="checkbox"/> Delivery techniques detract from the understandability of the presentation and speaker appears uncomfortable. |
| | Supporting material (explanations, examples, illustrations, figures, photos, diagrams, statistics) | <input type="checkbox"/> A variety of supporting materials makes appropriate reference to information or analysis that significantly supports the presentation. | <input type="checkbox"/> Supporting materials make appropriate reference to information or analysis that generally supports the presentation. | <input type="checkbox"/> Supporting materials make appropriate reference to information or analysis that partially supports the presentation. | <input type="checkbox"/> Insufficient supporting materials make reference to information or analysis that minimally supports the presentation. |
| | Central message | <input type="checkbox"/> Central message is compelling (strongly stated, appropriately repeated, memorable and strongly supported). | <input type="checkbox"/> Central message is clear and consistent with the supporting material. | <input type="checkbox"/> Central message is basically understandable but is not often repeated or is not memorable. | <input type="checkbox"/> Central message can be deduced, but is not explicitly stated in the presentation. |

| Student Learning Outcome | | 4 - Exemplary | 3 - Proficient | 2- Marginal | 1 - Unacceptable |
|---|---|--|---|--|---|
| SLO 4 –M.S. SLO 5 – PhD Critical thinking and application of inquiry and analysis ³ (max. 20 points, min. 5 points) | Has stated the research problem clearly, providing motivation for undertaking the research | <input type="checkbox"/> Clear statement of the research problem with well stated associated rationale | <input type="checkbox"/> Statement of research problem with associated rationale | <input type="checkbox"/> Unclear statement of research problem OR rationale for undertaking the research is not well developed | <input type="checkbox"/> Unclear statement of research problem AND rationale for undertaking the research is not well developed |
| | Demonstrated the potential value of solution to the research problem in advancing knowledge within the area of study | <input type="checkbox"/> Clearly states the value of the proposed research | <input type="checkbox"/> States the value of proposed research | <input type="checkbox"/> Recognizes the value of the research but didn't state explicitly | <input type="checkbox"/> Doesn't recognize the potential value of the proposed research |
| | Demonstrates sound knowledge of literature in the area, and of prior work on the specific research problem | <input type="checkbox"/> Synthesizes in-depth information from relevant sources representing various points of view/approaches | <input type="checkbox"/> Presents in-depth information from relevant sources presenting various points of view/approaches | <input type="checkbox"/> Presents information from relevant sources representing limited points of view/approaches | <input type="checkbox"/> Presents information from irrelevant sources representing limited points of view/approaches |
| | Planned research is creative and original with well-defined hypotheses or objectives | <input type="checkbox"/> Highly creative and original with well-defined hypotheses or objectives | <input type="checkbox"/> Somewhat creative and original with well-defined hypotheses or objectives | <input type="checkbox"/> Research not very creative and original OR hypotheses or objectives not well-defined | <input type="checkbox"/> Research neither creative nor original AND hypotheses or objectives not well-defined |
| | Has proposed sound state-of-the field research methods/tools to solve the defined problem and has described the methods/tools effectively | <input type="checkbox"/> All elements of the methodology are skillfully developed. Appropriate methodology may be synthesized from across disciplines or from relevant sub-disciplines | <input type="checkbox"/> Critical elements of the methodology are appropriately developed, however, more subtle elements are ignored or unaccounted for | <input type="checkbox"/> Critical elements of the methodology are missing, incorrectly developed, or unfocused | <input type="checkbox"/> Design of experiments demonstrates a misunderstanding of the methodology |

Entomology and Nematology PhD Qualifying Exam – rev. 10/18

Student _____ Date _____ Committee member _____

| Student Learning Outcome | | SCORE | SCALE |
|--|--|-------|---|
| SLO 1 (biology) | Information correct and relevant | | 4 = Exemplary 3 = Proficient 2 = Marginal 1 = Unacceptable |
| | Question fully answered | | |
| | Terminology and citations | | |
| | Interpretation of content | | |
| | SLO 1 Biology SUM | | |
| SLO 1 (entomology/nematology) | Information correct and relevant | | 4 = Exemplary 3 = Proficient 2 = Marginal 1 = Unacceptable |
| | Question fully answered | | |
| | Terminology and citations | | |
| | Interpretation of content | | |
| | SLO 1 Entomology/Nematology SUM | | |
| SLO 1 (research area) | Information correct and relevant | | 4 = Exemplary 3 = Proficient 2 = Marginal 1 = Unacceptable |
| | Question fully answered | | |
| | Terminology and citations | | |
| | Interpretation of content | | |
| | SLO 1 Research area SUM | | |
| Student Learning Outcome | | SCORE | SCALE |
| SLO 2 Experimental design, research methodology and statistics | Statistical understanding | | 4 = Exemplary 3 = Proficient 2 = Marginal 1 = Unacceptable |
| | Experimental design understanding | | |
| | SLO 2 Experimental design and statistics SUM | | |
| Student Learning Outcome | | SCORE | SCALE |
| SLO 3 Oral presentation skills ¹ | Clarity - logical | | 4 = Exemplary 3 = Proficient 2 = Marginal 1 = Unacceptable |
| | Clarity - eloquent | | |
| | Confidence | | |
| | SLO 3 Oral presentation skills ¹ SUM | | |
| SLO 3 Written skills ² | Content and organization | | 4 = Exemplary 3 = Proficient 2 = Marginal 1 = Unacceptable |
| | Syntax and mechanics – fluid and clear | | |
| | Syntax and mechanics – error free | | |
| | SLO 3 Written skills² SUM | | |
| Student Learning Outcome | | SCORE | SCALE |
| SLO 5 Critical thinking and application of inquiry and analysis ³ | Judgment | | 4 = Exemplary 3 = Proficient 2 = Marginal 1 = Unacceptable |
| | Analysis of material | | |
| | Synthesis of content | | |
| | Reflection and evaluation | | |
| | Advanced thinking and conceptualization | | |
| | Logical flow | | |
| | SLO 5 – PhD Critical thinking SUM | | |

These scores do not determine whether the student passes or fails the PhD qualifying exam. You can use the scores in your decision but there is no cut-off score below which the student fails the exam. All committee members should fill out a form and copies should be delivered to the Graduate Coordinator's office for deposit in the student's file. Supervisory committee chair - please share the results of this evaluation with your student, either summarizing their strengths/weaknesses or showing the individual score sheets.

SLO 1 (knowledge of discipline) = _____ (maximum 48, minimum 12)
 SLO 2 (knowledge of statistical and research methodology) = _____ (maximum 8, minimum 2)
 SLO 3 (oral communication skills) = _____ (maximum 12, minimum 3)
 SLO 3 (written communication skills) = _____ (maximum 12, minimum 3)
 SLO 5 (critical thinking ability) = _____ (maximum 24, minimum 6)

Additional comments

| | | Exemplary (4) | Proficient (3) | Marginal (2) | Unacceptable (1) |
|--|---|--|--|---|---|
| SLO 1 Identify insects, other arthropods and/or nematodes, and describe their relationship with the environment and humans (Max. points 48, min. 12) | General knowledge in biology | <input type="checkbox"/> All information presented is both accurate and relevant | <input type="checkbox"/> Nearly all information presented is accurate and relevant | <input type="checkbox"/> Many inaccuracies and some misinterpretation of content and largely irrelevant | <input type="checkbox"/> Inaccurate or misinterpreted content and almost entirely irrelevant |
| | | <input type="checkbox"/> Question is answered fully | <input type="checkbox"/> Question is essentially answered | <input type="checkbox"/> Multiple aspects of question unanswered | <input type="checkbox"/> Question not answered |
| | | <input type="checkbox"/> Proper use of terminology and citations | <input type="checkbox"/> Mostly proper use of terminology and citations | <input type="checkbox"/> Improper use of terminology and citations | <input type="checkbox"/> Misuse of terminology and citations |
| | | <input type="checkbox"/> Insightful interpretation of the content | <input type="checkbox"/> Demonstrates clear understanding of the content without misinterpretation | <input type="checkbox"/> Misinterpretation of content | <input type="checkbox"/> Gross misinterpretation of content |
| | General knowledge in entomology or nematology | <input type="checkbox"/> All information presented is both accurate and relevant | <input type="checkbox"/> Nearly all information presented is accurate and relevant | <input type="checkbox"/> Many inaccuracies and some misinterpretation of content and largely irrelevant | <input type="checkbox"/> Inaccurate or misinterpreted content and almost entirely irrelevant |
| | | <input type="checkbox"/> Question is answered fully | <input type="checkbox"/> Question is essentially answered | <input type="checkbox"/> Multiple aspects of question unanswered | <input type="checkbox"/> Question not answered |
| | | <input type="checkbox"/> Proper use of terminology and citations | <input type="checkbox"/> Mostly proper use of terminology and citations | <input type="checkbox"/> Improper use of terminology and citations | <input type="checkbox"/> Misuse of terminology and citations |
| | | <input type="checkbox"/> Insightful interpretation of the content | <input type="checkbox"/> Demonstrates clear understanding of the content without misinterpretation | <input type="checkbox"/> Misinterpretation of content | <input type="checkbox"/> Gross misinterpretation of content |
| | In-depth knowledge in area of research specialization | <input type="checkbox"/> All information presented is both accurate and relevant | <input type="checkbox"/> Nearly all information presented is accurate and relevant | <input type="checkbox"/> Many inaccuracies and some misinterpretation of content and largely irrelevant | <input type="checkbox"/> Inaccurate or misinterpreted content and almost entirely irrelevant |
| | | <input type="checkbox"/> Question is answered fully | <input type="checkbox"/> Question is essentially answered | <input type="checkbox"/> Multiple aspects of question unanswered | <input type="checkbox"/> Question not answered |
| | | <input type="checkbox"/> Proper use of terminology and citations | <input type="checkbox"/> Mostly proper use of terminology and citations | <input type="checkbox"/> Improper use of terminology and citations | <input type="checkbox"/> Misuse of terminology and citations |
| | | <input type="checkbox"/> Insightful interpretation of the content | <input type="checkbox"/> Demonstrates clear understanding of the content without misinterpretation | <input type="checkbox"/> Misinterpretation of content | <input type="checkbox"/> Gross misinterpretation of content |
| SLO 2 Discuss appropriate research methodology, including aspects of statistical design and analysis, in the execution of arthropod research (Max. points 8, min. 2) | General knowledge in statistics and experimental method | <input type="checkbox"/> Answers all statistical questions correctly, in detail and logically | <input type="checkbox"/> Answers all statistical questions in some detail | <input type="checkbox"/> Attempts all statistical questions but has errors in answers | <input type="checkbox"/> Does not attempt to answer all statistical questions and/or has many errors |
| | | <input type="checkbox"/> Answers all experimental methodology questions correctly, in detail and logically | <input type="checkbox"/> Answers all experimental methodology questions in some detail | <input type="checkbox"/> Attempts all experimental methodology questions but has errors in answers | <input type="checkbox"/> Does not attempt to answer all experimental methodology questions and/or has many errors |

| | | | | | |
|--|---|---|--|---|--|
| SLO 3 Clearly and confidently communicate science in oral exam (Max. points 12, min. 3) | Clarity | <input type="checkbox"/> Provides logically developed, thoughtful answers consistently | <input type="checkbox"/> Provides logical answers most of the time | <input type="checkbox"/> Answers may not be logical all the time | <input type="checkbox"/> Answers are confusing, illogical |
| | | <input type="checkbox"/> Language is eloquent | <input type="checkbox"/> Language is straightforward | <input type="checkbox"/> Language is awkward | <input type="checkbox"/> Language is poor |
| | Confidence | <input type="checkbox"/> Confident in verbal communication skills | <input type="checkbox"/> Usually confident in verbal communication skills | <input type="checkbox"/> Somewhat confident in verbal communication skills | <input type="checkbox"/> Rarely confident in verbal communication skills |
| SLO 3 Clearly communicate science in written exam (<i>if written exam is given</i>) (Max. points 12, min. 3) | Content and organization | <input type="checkbox"/> Uses appropriate, relevant, and compelling content to illustrate mastery of the subject, conveying the writer's understanding of the questions | <input type="checkbox"/> Uses appropriate, relevant, and compelling content to explore ideas within the context of the questions | <input type="checkbox"/> Uses appropriate and relevant content to develop and explore ideas throughout most of the exam | <input type="checkbox"/> Does not use appropriate and relevant content to develop simple ideas |
| | Syntax and mechanics | <input type="checkbox"/> Uses language that skillfully communicates meaning to readers with clarity and fluency | <input type="checkbox"/> Uses straightforward language that generally conveys meaning to readers | <input type="checkbox"/> Uses language that generally conveys meaning to reader with clarity | <input type="checkbox"/> Uses language that sometimes impedes meaning |
| | | <input type="checkbox"/> Writing is virtually error-free | <input type="checkbox"/> Writing has few errors | <input type="checkbox"/> Writing may include many errors | <input type="checkbox"/> Writing has many errors |
| SLO 5 Critical thinking ability – ability to synthesize and extrapolate (Max. points 24, min. 6) | Judgment | <input type="checkbox"/> Valid judgments based on evidence | <input type="checkbox"/> Nearly all judgments are valid and based on evidence | <input type="checkbox"/> Judgments are occasionally invalid | <input type="checkbox"/> Invalid judgments based on evidence provided |
| | Analysis of material | <input type="checkbox"/> Analysis of material is insightful and conclusions are fully defensible | <input type="checkbox"/> Analysis of material is accurate and conclusions are defensible | <input type="checkbox"/> Analysis of material is inaccurate and conclusions are <u>rarely defensible</u> | <input type="checkbox"/> Indefensible conclusions |
| | Synthesis of content | <input type="checkbox"/> Synthesis of content is clearly evident | <input type="checkbox"/> Content synthesized well for the most part | <input type="checkbox"/> Merely recalls information, lists and defines but rarely synthesizes content | <input type="checkbox"/> No synthesis evident |
| | Reflection and evaluation | <input type="checkbox"/> Response is deeply reflective and evaluative | <input type="checkbox"/> Response is reflective and evaluative | <input type="checkbox"/> Responses are rarely evaluative | <input type="checkbox"/> Response is not reflective or evaluative |
| | Advanced thinking and conceptualization | <input type="checkbox"/> Exhibits advanced thinking and conceptualization | <input type="checkbox"/> Exhibits clear thinking and conceptualization | <input type="checkbox"/> Little ability to detect patterns or conceptualize | <input type="checkbox"/> No advanced thinking or conceptualization |
| | Logical flow | <input type="checkbox"/> Logical flow of ideas | <input type="checkbox"/> Ideas tend to flow logically | <input type="checkbox"/> Flow of ideas is rarely logical | <input type="checkbox"/> Illogical flow of ideas |

Entomology and Nematology M.S. Final Exam – rev. 10/18

Student _____ Date _____

Committee member _____

| Student Learning Outcome | | SCORE | SCALE |
|---|---|-------|---|
| SLO 1 (biology) | Information correct and relevant | | 4 = Exemplary 3 = Proficient 2 = Marginal 1 = Unacceptable |
| | Question fully answered | | |
| | Terminology and citations | | |
| | Interpretation of content | | |
| | SLO 1 Biology SUM | | |
| SLO 1 (entomology/nematology) | Information correct and relevant | | 4 = Exemplary 3 = Proficient 2 = Marginal 1 = Unacceptable |
| | Question fully answered | | |
| | Terminology and citations | | |
| | Interpretation of content | | |
| | SLO 1 Entomology/Nematology SUM | | |
| SLO 1 (research area) | Information correct and relevant | | 4 = Exemplary 3 = Proficient 2 = Marginal 1 = Unacceptable |
| | Question fully answered | | |
| | Terminology and citations | | |
| | Interpretation of content | | |
| | SLO 1 Research area SUM | | |
| Student Learning Outcome | | SCORE | SCALE |
| SLO 2 Experimental design, research methodology and statistics | Statistical understanding | | 4 = Exemplary 3 = Proficient 2 = Marginal 1 = Unacceptable |
| | Experimental design understanding | | |
| | | | |
| | SLO 2 Experimental design and statistics SUM | | |

| Student Learning Outcome | | SCORE | SCALE |
|---|---|-------|---|
| SLO 3 Oral presentation skills ¹ | Clarity - confidence | | 4 = Exemplary 3 = Proficient 2 = Marginal 1 = Unacceptable |
| | Clarity - eloquence | | |
| | Confidence | | |
| | SLO 3 Oral presentation skills ¹ SUM | | |
| SLO 3 Written skills ² | Content and organization | | 4 = Exemplary 3 = Proficient 2 = Marginal 1 = Unacceptable |
| | Syntax and mechanics – clarity and fluidity | | |
| | Syntax and mechanics – error free | | |
| | SLO 3 Written skills ² SUM | | |
| Student Learning Outcome | | SCORE | SCALE |
| SLO 4 Critical thinking and application of inquiry and analysis ³ | Judgment | | 4 = Exemplary 3 = Proficient 2 = Marginal 1 = Unacceptable |
| | Analysis of material | | |
| | Synthesis of content | | |
| | Reflection and evaluation | | |
| | Advanced thinking and conceptualization | | |
| | Logical flow | | |
| | SLO 4 Critical thinking SUM | | |

These scores do not determine whether the student passes or fails the M.S. final exam. You can use the scores in your decision but there is no cut-off score below which the student fails the exam. All committee members should fill out a form and copies should be delivered to the Graduate Coordinator's office for deposit in the student's file. Supervisory committee chair - please share the results of this evaluation with your student, either summarizing their strengths/weaknesses or showing the individual score sheets.

| | |
|---|----------------------------------|
| SLO 1 (knowledge of discipline) | = _____ (maximum 48, minimum 12) |
| SLO 2 (knowledge of statistical and research methodology) | = _____ (maximum 8, minimum 2) |
| SLO 3 (oral communication skills) | = _____ (maximum 12, minimum 3) |
| SLO 3 (written communication skills) | = _____ (maximum 12, minimum 3) |
| SLO 4 (critical thinking ability) | = _____ (maximum 24, minimum 6) |

Additional comments

| | | Exemplary (4) | Proficient (3) | Marginal (2) | Unacceptable (1) |
|--|---|--|--|---|--|
| SLO 1 Identify insects, other arthropods and/or nematodes, and describe their relationship with the environment and humans (Max. points 48, min. 12) | General knowledge in biology | <input type="checkbox"/> All information presented is both accurate and relevant | <input type="checkbox"/> Nearly all information presented is accurate and relevant | <input type="checkbox"/> Many inaccuracies and some misinterpretation of content and largely irrelevant | <input type="checkbox"/> Inaccurate or misinterpreted content and almost entirely irrelevant |
| | | <input type="checkbox"/> Question is answered fully | <input type="checkbox"/> Question is essentially answered | <input type="checkbox"/> Multiple aspects of question unanswered | <input type="checkbox"/> Question not answered |
| | | <input type="checkbox"/> Proper use of terminology and citations | <input type="checkbox"/> Mostly proper use of terminology and citations | <input type="checkbox"/> Improper use of terminology and citations | <input type="checkbox"/> Misuse of terminology and citations |
| | | <input type="checkbox"/> Insightful interpretation of the content | <input type="checkbox"/> Demonstrates clear understanding of the content without misinterpretation | <input type="checkbox"/> Misinterpretation of content | <input type="checkbox"/> Gross misinterpretation of content |
| | General knowledge in entomology or nematology | <input type="checkbox"/> All information presented is both accurate and relevant | <input type="checkbox"/> Nearly all information presented is accurate and relevant | <input type="checkbox"/> Many inaccuracies and some misinterpretation of content and largely irrelevant | <input type="checkbox"/> Inaccurate or misinterpreted content and almost entirely irrelevant |
| | | <input type="checkbox"/> Question is answered fully | <input type="checkbox"/> Question is essentially answered | <input type="checkbox"/> Multiple aspects of question unanswered | <input type="checkbox"/> Question not answered |
| | | <input type="checkbox"/> Proper use of terminology and citations | <input type="checkbox"/> Mostly proper use of terminology and citations | <input type="checkbox"/> Improper use of terminology and citations | <input type="checkbox"/> Misuse of terminology and citations |
| | | <input type="checkbox"/> Insightful interpretation of the content | <input type="checkbox"/> Demonstrates clear understanding of the content without misinterpretation | <input type="checkbox"/> Misinterpretation of content | <input type="checkbox"/> Gross misinterpretation of content |

| | | | | | |
|--|---|--|--|---|---|
| | In-depth knowledge in area of research specialization | <input type="checkbox"/> All information presented is both accurate and relevant | <input type="checkbox"/> Nearly all information presented is accurate and relevant | <input type="checkbox"/> Many inaccuracies and some misinterpretation of content and largely irrelevant | <input type="checkbox"/> Inaccurate or misinterpreted content and almost entirely irrelevant |
| | | <input type="checkbox"/> Question is answered fully | <input type="checkbox"/> Question is essentially answered | <input type="checkbox"/> Multiple aspects of question unanswered | <input type="checkbox"/> Question not answered |
| | | <input type="checkbox"/> Proper use of terminology and citations | <input type="checkbox"/> Mostly proper use of terminology and citations | <input type="checkbox"/> Improper use of terminology and citations | <input type="checkbox"/> Misuse of terminology and citations |
| | | <input type="checkbox"/> Insightful interpretation of the content | <input type="checkbox"/> Demonstrates clear understanding of the content without misinterpretation | <input type="checkbox"/> Misinterpretation of content | <input type="checkbox"/> Gross misinterpretation of content |
| SLO 2 Discuss appropriate research methodology, including aspects of statistical design and analysis, in the execution of arthropod research (Max. points 8, min. 2) | General knowledge in statistics and experimental method | <input type="checkbox"/> Answers all statistical questions correctly, in detail and logically | <input type="checkbox"/> Answers all statistical questions in some detail | <input type="checkbox"/> Attempts all statistical questions but has errors in answers | <input type="checkbox"/> Does not attempt to answer all statistical questions and/or has many errors |
| | | <input type="checkbox"/> Answers all experimental methodology questions correctly, in detail and logically | <input type="checkbox"/> Answers all experimental methodology questions in some detail | <input type="checkbox"/> Attempts all experimental methodology questions but has errors in answers | <input type="checkbox"/> Does not attempt to answer all experimental methodology questions and/or has many errors |
| SLO 3 Clearly and confidently communicate science in oral exam (Max. points 12, min. 3) | Clarity | <input type="checkbox"/> Provides logically developed, thoughtful answers consistently | <input type="checkbox"/> Provides logical answers most of the time | <input type="checkbox"/> Answers may not be logical all the time | <input type="checkbox"/> Answers are confusing, illogical |
| | | <input type="checkbox"/> Language is eloquent | <input type="checkbox"/> Language is straightforward | <input type="checkbox"/> Language is awkward | <input type="checkbox"/> Language is poor |
| | Confidence | <input type="checkbox"/> Confident in verbal communication skills | <input type="checkbox"/> Usually confident in verbal communication skills | <input type="checkbox"/> Somewhat confident in verbal communication skills | <input type="checkbox"/> Rarely confident in verbal communication skills |

| | | | | | |
|---|---|---|--|---|--|
| SLO 3 Clearly communicate science in written exam <i>(if written exam is given)</i> (Max. points 12, min. 3) | Content and organization | <input type="checkbox"/> Uses appropriate, relevant, and compelling content to illustrate mastery of the subject, conveying the writer's understanding of the questions | <input type="checkbox"/> Uses appropriate, relevant, and compelling content to explore ideas within the context of the questions | <input type="checkbox"/> Uses appropriate and relevant content to develop and explore ideas throughout most of the exam | <input type="checkbox"/> Does not use appropriate and relevant content to develop simple ideas |
| | Syntax and mechanics | <input type="checkbox"/> Uses language that skillfully communicates meaning to readers with clarity and fluency | <input type="checkbox"/> Uses straightforward language that generally conveys meaning to readers | <input type="checkbox"/> Uses language that generally conveys meaning to reader with clarity | <input type="checkbox"/> Uses language that sometimes impedes meaning |
| | | <input type="checkbox"/> Writing is virtually error-free | <input type="checkbox"/> Writing has few errors | <input type="checkbox"/> Writing may include many errors | <input type="checkbox"/> Writing has many errors |
| SLO 4 Critical thinking ability – ability to synthesize and extrapolate (Max. points 24, min. 6) | Judgment | <input type="checkbox"/> Valid judgments based on evidence | <input type="checkbox"/> Nearly all judgments are valid and based on evidence | <input type="checkbox"/> Judgments are occasionally invalid | <input type="checkbox"/> Invalid judgments based on evidence provided |
| | Analysis of material | <input type="checkbox"/> Analysis of material is insightful and conclusions are fully defensible | <input type="checkbox"/> Analysis of material is accurate and conclusions are defensible | <input type="checkbox"/> Analysis of material is inaccurate and conclusions are rarely defensible | <input type="checkbox"/> Indefensible conclusions |
| | Synthesis of content | <input type="checkbox"/> Synthesis of content is clearly evident | <input type="checkbox"/> Content synthesized well for the most part | <input type="checkbox"/> Merely recalls information, lists and defines but rarely synthesizes content | <input type="checkbox"/> No synthesis evident |
| | Reflection and evaluation | <input type="checkbox"/> Response is deeply reflective and evaluative | <input type="checkbox"/> Response is reflective and evaluative | <input type="checkbox"/> Responses are rarely evaluative | <input type="checkbox"/> Response is not reflective or evaluative |
| | Advanced thinking and conceptualization | <input type="checkbox"/> Exhibits advanced thinking and conceptualization | <input type="checkbox"/> Exhibits clear thinking and conceptualization | <input type="checkbox"/> Little ability to detect patterns or conceptualize | <input type="checkbox"/> No advanced thinking or conceptualization |
| | Logical flow | <input type="checkbox"/> Logical flow of ideas | <input type="checkbox"/> Ideas tend to flow logically | <input type="checkbox"/> Flow of ideas is rarely logical | <input type="checkbox"/> Illogical flow of ideas |

Written Thesis and Oral Defense (MS thesis) – rev. 10/18

Student _____

Number of refereed journal articles accepted or in press by today _____

Date _____

Committee member _____

| Student Learning Outcome | | SCORE | SCALE |
|--|--|------------|---|
| SLO 3 Oral presentation skills | Organization | | 4 = Exemplary 3 = Proficient 2 = Marginal 1 = Unacceptable |
| | Language | | |
| | Delivery | | |
| | Supporting material | | |
| | Central message | | |
| | SLO 3 Oral presentation skills¹ | SUM | |
| SLO 3 Written skills ² | Context and purpose | | 4 = Exemplary 3 = Proficient 2 = Marginal 1 = Unacceptable |
| | Content development | | |
| | Conventions | | |
| | Sources and evidence | | |
| | Syntax and mechanics | | |
| | SLO 3 Written skills² | SUM | |
| Student Learning Outcome | | SCORE | SCALE |
| SLO 4 Critical thinking and application of inquiry and analysis ³ | Clear statement of research problem and motivation | | 4 = Exemplary 3 = Proficient 2 = Marginal 1 = Unacceptable |
| | Value of research demonstrated | | |
| | Knowledge of literature | | |
| | Well-defined hypotheses or objectives | | |
| | Sound methods/tools | | |
| | Data interpretation and analysis | | |
| | Conclusions | | |
| | Broader impact and limitations | | |
| | Independent research and developed expertise | | |
| | SLO 4 –Critical thinking | SUM | |

These scores do not determine whether the student passes or fails the oral defense or the written thesis/dissertation. They are for the committee to consider when deciding on whether the student passes or not. All committee members should fill out a form and copies should be delivered to the Graduate Coordinator's office for deposit in the student's file.

Supervisory committee chair - please share the results of this evaluation with your student, either summarizing their strengths/weaknesses or showing the individual score sheets.

SLO 3 (oral communication skills) = _____ (maximum 20, minimum 5)

SLO 3 (written communication skills) = _____ (maximum 20, minimum 5)

SLO 4 (critical thinking ability) = _____ (maximum 36, minimum 9)

Additional comments (strengths/weaknesses):

¹ Taken from Written Communication VALUE Rubric – Association of American Colleges and Universities

² Taken from Oral Communication VALUE Rubric - Association of American Colleges and Universities

³ Modified from Inquiry and Analysis VALUE Rubric - Association of American Colleges and Universities

| Student Learning Outcome | | 4 - Exemplary | 3 - Proficient | 2- Marginal | 1 - Unacceptable |
|--|---|---|--|--|--|
| SLO 3 Written skills ¹ Max. 20 points, min. 5 points | Context and purpose | Demonstrates a thorough understanding of context, audience, and purpose that focuses all elements of the work. | Demonstrates adequate consideration of context, audience and purpose, and a clear focus of the work. | Demonstrates awareness of context, audience, and purpose of the work. | Does not demonstrate attention to context, audience, and purpose of the work. |
| | Content development | Consistently uses appropriate, relevant and compelling content to illustrate mastery of the subject, conveying the writer's understanding. | Consistently uses appropriate, relevant, and compelling content to explore ideas within the subject. | Use appropriate and relevant content to develop and explore ideas throughout most of the work. | Does not use appropriate and relevant content to develop simple ideas. |
| | Conventions | Detailed attention to and successful execution of all conventions specific to the discipline (organization, content, presentation, formatting, style) | Consistent use of important conventions specific to the discipline. | Follows expectations appropriate for specific discipline for organization, content and presentation. | Does not use a consistent system for basic organization and presentation. |
| | Sources and evidence | Demonstrates skillful use of high-quality, credible, relevant sources to develop ideas that are appropriate. | Demonstrates consistent use of credible, relevant sources to support ideas. | Demonstrates an attempt to use credible and/or relevant sources to support ideas. | Does not use sources to support ideas. |
| | Syntax and mechanics | Uses language that skillfully communicates meaning to readers with clarity and fluency, and is virtually error-free. | Uses straightforward language that generally conveys meaning to readers and has few errors. | Uses language that generally conveys meaning to readers with clarity but may include errors. | Uses language that sometimes impedes meaning because of errors in usage. |
| Student Learning Outcome | | 4 - Exemplary | 3 - Proficient | 2- Marginal | 1 - Unacceptable |
| SLO 3 Oral presentation skills ² Max. 20 points, min. 5 points | Organization (specific introduction and conclusion, sequence of material in body, and transitions) | Organizational pattern is clearly and consistently observable, is skillful, and makes the content of the presentation cohesive | Organizational pattern is clearly and consistently observable | Organizational pattern is intermittently observable | Organizational pattern is not observable |
| | Language | Language choices enhance the effectiveness of the presentation and are appropriate for the audience. | Language choices generally support the effectiveness of the presentation and are appropriate for the audience. | Language choices partially support the effectiveness of the presentation and are appropriate for the audience. | Language choices are unclear and minimally support the effectiveness of the presentation and are not appropriate for the audience. |
| | Delivery (posture, use of pointer, eye contact, vocal expressiveness) | Delivery techniques make the presentation compelling, and speaker appears polished and confident. | Delivery techniques make the presentation interesting and speaker appears comfortable. | Delivery techniques make the presentation understandable, and speaker appears tentative. | Delivery techniques detract from the understandability of the presentation and speaker appears uncomfortable. |
| | Supporting material (explanations, examples, illustrations, figures, photos, diagrams, statistics) | A variety of supporting materials makes appropriate reference to information or analysis that significantly supports the presentation. | Supporting materials make appropriate reference to information or analysis that generally supports the presentation. | Supporting materials make appropriate reference to information or analysis that partially supports the presentation. | Insufficient supporting materials make reference to information or analysis that minimally supports the presentation. |
| | Central message | Central message is compelling (strongly stated, appropriately repeated, memorable and strongly supported). | Central message is clear and consistent with the supporting material. | Central message is basically understandable but is not often repeated or is not memorable. | Central message can be deduced, but is not explicitly stated in the presentation. |

| Student Learning Outcome | | 4 - Exemplary | 3 - Proficient | 2- Marginal | 1 - Unacceptable |
|---|--|---|--|---|--|
| SLO 4 –M.S. Critical thinking and application of inquiry and analysis ³ Max. 36 points, min. 9 points | Has stated the research problem clearly, providing motivation for undertaking the research | Clear statement of the research problem with well stated associated rationale | Statement of research problem with associated rationale | Unclear statement of research problem OR rationale for undertaking the research is not well developed | Unclear statement of research problem AND rationale for undertaking the research is not well developed |
| | Demonstrated the potential value of solution to the research problem in advancing knowledge within the area of study | Clearly states the value of the proposed research | States the value of proposed research | Recognizes the value of the research but didn't state explicitly | Doesn't recognize the potential value of the proposed research |
| | Demonstrates sound knowledge of literature in the area, and of prior work on the specific research problem | Synthesizes in-depth information from relevant sources representing various points of view/approaches | Presents in-depth information from relevant sources presenting various points of view/approaches | Presents information from relevant sources representing limited points of view/approaches | Presents information from irrelevant sources representing limited points of view/approaches |
| | Research is creative and original with well-defined hypotheses or objectives | Highly creative and original with well-defined hypotheses or objectives | Somewhat creative and original with well-defined hypotheses or objectives | Research not very creative and original OR hypotheses or objectives not well-defined | Research neither creative nor original AND hypotheses or objectives not well-defined |

| | | | | | |
|--|---|--|--|---|---|
| | Has applied sound state-of-the-field research methods/tools to solve the defined problem and has described the methods/ tools effectively | All elements of the methodology are skillfully developed. Appropriate methodology may be synthesized from across disciplines or from relevant subdisciplines | Critical elements of the methodology are appropriately developed, however, more subtle elements are ignored or unaccounted for | Critical elements of the methodology are missing, incorrectly developed, or unfocused | Design of experiments demonstrates a misunderstanding of the methodology |
| | Analyzed and interpreted research results/data effectively | Organizes and synthesizes evidence to reveal insightful patterns, differences, or similarities related to focus | Organizes evidence to reveal important patterns, differences, or similarities related to focus | Organizes evidence, but the organization is not effective in revealing important patterns, differences, or similarities | Lists evidence, but it is not organized and/or is unrelated to focus |
| | Conclusions | Conclusions are logical extrapolations from the research findings | Conclusions focused solely on research findings. | Conclusions are so general that they apply beyond the scope of the research findings | Conclusions are ambiguous, illogical, or unsupportable from inquiry findings |
| | Demonstrated awareness of broader implications and limitations of the concluded research | Insightfully discusses in detail relevant and supported limitations and implications | Discusses relevant and supported limitations and implications | Presents relevant and supported limitations and implications | Presents limitations and implications but they are possibly irrelevant and unsupported |
| | Has demonstrated capability for independent research in the area of study and expertise in the area, appropriate to the degree | Research was conceived and conducted independently and candidate has demonstrated a high level of expertise in the area | Research was conceived and conducted with minimal supervision. Candidate is confident in the area of research | Research topic and methodology was conceived with much supervision. Candidate shows some competence in the area | Research topic and methodology was provided to the student and candidate shows little expertise in the area |

Written Dissertation and Oral Defense (PhD) and re-examination of content knowledge

Student _____ Number of refereed journal articles accepted or in press by today _____

Date _____ Committee member _____

| Student Learning Outcome | | SCORE | SCALE |
|--|---|-------|---|
| SLO 1 (biology) | Information correct and relevant | | 4 = Exemplary 3 = Proficient 2 = Marginal 1 = Unacceptable |
| | Question fully answered | | |
| | Terminology and citations | | |
| | Interpretation of content | | |
| | SLO 1 Biology SUM | | |
| SLO 1 (entomology/nematology) | Information correct and relevant | | 4 = Exemplary 3 = Proficient 2 = Marginal 1 = Unacceptable |
| | Question fully answered | | |
| | Terminology and citations | | |
| | Interpretation of content | | |
| | SLO 1 Entomology/Nematology SUM | | |
| SLO 1 (research area) | Information correct and relevant | | 4 = Exemplary 3 = Proficient 2 = Marginal 1 = Unacceptable |
| | Question fully answered | | |
| | Terminology and citations | | |
| | Interpretation of content | | |
| | SLO 1 Research area SUM | | |
| Student Learning Outcome | | SCORE | SCALE |
| SLO 2 Experimental design, research methodology and statistics | Statistical understanding | | 4 = Exemplary 3 = Proficient 2 = Marginal 1 = Unacceptable |
| | Experimental design understanding | | |
| | SLO 2 Experimental design and statistics SUM | | |

| Student Learning Outcome | | SCORE | SCALE |
|---|--|------------|---|
| SLO 3 Oral presentation skills | Organization | | 4 = Exemplary 3 = Proficient 2 = Marginal 1 = Unacceptable |
| | Language | | |
| | Delivery | | |
| | Supporting material | | |
| | Central message | | |
| | SLO 3 Oral presentation skills¹ | SUM | |
| SLO 3 Written skills ² | Context and purpose | | 4 = Exemplary 3 = Proficient 2 = Marginal 1 = Unacceptable |
| | Content development | | |
| | Conventions | | |
| | Sources and evidence | | |
| | Syntax and mechanics | | |
| | SLO 3 Written skills² | SUM | |
| Student Learning Outcome | | SCORE | SCALE |
| SLO 5 Critical thinking and application of inquiry and analysis ³ | Clear statement of research problem and motivation | | 4 = Exemplary 3 = Proficient 2 = Marginal 1 = Unacceptable |
| | Value of research demonstrated | | |
| | Knowledge of literature | | |
| | Well-defined hypotheses or objectives | | |
| | Sound methods/tools | | |
| | Data interpretation and analysis | | |
| | Conclusions | | |
| | Broader impact and limitations | | |
| | Independent research and developed expertise | | |
| | SLO 5 – PhD Critical thinking | SUM | |

These scores do not determine whether the student passes or fails the oral defense or the written thesis/dissertation. They are for the committee to consider when deciding on whether the student passes or not. All committee members should fill out a form and copies should be delivered to the Graduate Coordinator's office for deposit in the student's file.

Supervisory committee chair - please share the results of this evaluation with your student, either summarizing their strengths/weaknesses or showing the individual score sheets.

SLO 1 (knowledge of discipline) = _____ (maximum 48, minimum 12)

SLO 2 (knowledge of statistical and research methodology) = _____ (maximum 8, minimum 2)

SLO 3 (oral communication skills) = _____ (maximum 20, minimum 5)

SLO 3 (written communication skills) = _____ (maximum 20, minimum 5)

SLO 5 (critical thinking ability) = _____ (maximum 36, minimum 9)

Additional comments (strengths/weaknesses):

¹ Taken from Written Communication VALUE Rubric – Association of American Colleges and Universities

² Taken from Oral Communication VALUE Rubric - Association of American Colleges and Universities

³ Modified from Inquiry and Analysis VALUE Rubric - Association of American Colleges and Universities

| Student Learning Outcome | | 4 - Exemplary | 3 - Proficient | 2- Marginal | 1 - Unacceptable |
|---|--|---|--|---|---|
| SLO 1 Identify insects, other arthropods and/or nematodes, and describe their relationship with the environment and humans (Max. points 48, min. 12) | General knowledge in biology | <input type="checkbox"/> All information presented is both accurate and relevant | <input type="checkbox"/> Nearly all information presented is accurate and relevant | <input type="checkbox"/> Many inaccuracies and some misinterpretation of content and largely irrelevant | <input type="checkbox"/> Inaccurate or misinterpreted content and almost entirely irrelevant |
| | | <input type="checkbox"/> Question is answered fully | <input type="checkbox"/> Question is essentially answered | <input type="checkbox"/> Multiple aspects of question unanswered | <input type="checkbox"/> Question not answered |
| | | <input type="checkbox"/> Proper use of terminology and citations | <input type="checkbox"/> Mostly proper use of terminology and citations | <input type="checkbox"/> Improper use of terminology and citations | <input type="checkbox"/> Misuse of terminology and citations |
| | | <input type="checkbox"/> Insightful interpretation of the content | <input type="checkbox"/> Demonstrates clear understanding of the content without misinterpretation | <input type="checkbox"/> Misinterpretation of content | <input type="checkbox"/> Gross misinterpretation of content |
| | General knowledge in entomology or nematology | <input type="checkbox"/> All information presented is both accurate and relevant | <input type="checkbox"/> Nearly all information presented is accurate and relevant | <input type="checkbox"/> Many inaccuracies and some misinterpretation of content and largely irrelevant | <input type="checkbox"/> Inaccurate or misinterpreted content and almost entirely irrelevant |
| | | <input type="checkbox"/> Question is answered fully | <input type="checkbox"/> Question is essentially answered | <input type="checkbox"/> Multiple aspects of question unanswered | <input type="checkbox"/> Question not answered |
| | | <input type="checkbox"/> Proper use of terminology and citations | <input type="checkbox"/> Mostly proper use of terminology and citations | <input type="checkbox"/> Improper use of terminology and citations | <input type="checkbox"/> Misuse of terminology and citations |
| | | <input type="checkbox"/> Insightful interpretation of the content | <input type="checkbox"/> Demonstrates clear understanding of the content without misinterpretation | <input type="checkbox"/> Misinterpretation of content | <input type="checkbox"/> Gross misinterpretation of content |
| | In-depth knowledge in area of research specialization | <input type="checkbox"/> All information presented is both accurate and relevant | <input type="checkbox"/> Nearly all information presented is accurate and relevant | <input type="checkbox"/> Many inaccuracies and some misinterpretation of content and largely irrelevant | <input type="checkbox"/> Inaccurate or misinterpreted content and almost entirely irrelevant |
| | | <input type="checkbox"/> Question is answered fully | <input type="checkbox"/> Question is essentially answered | <input type="checkbox"/> Multiple aspects of question unanswered | <input type="checkbox"/> Question not answered |
| | | <input type="checkbox"/> Proper use of terminology and citations | <input type="checkbox"/> Mostly proper use of terminology and citations | <input type="checkbox"/> Improper use of terminology and citations | <input type="checkbox"/> Misuse of terminology and citations |
| | | <input type="checkbox"/> Insightful interpretation of the content | <input type="checkbox"/> Demonstrates clear understanding of the content without misinterpretation | <input type="checkbox"/> Misinterpretation of content | <input type="checkbox"/> Gross misinterpretation of content |
| SLO 2 Discuss appropriate research methodology, including aspects of statistical design and analysis, in the execution of arthropod research(Max. points 8, min. 2) | General knowledge in statistics and experimental method | <input type="checkbox"/> Answers all statistical questions correctly, in detail and logically | <input type="checkbox"/> Answers all statistical questions in some detail | <input type="checkbox"/> Attempts all statistical questions but has errors in answers | <input type="checkbox"/> Does not attempt to answer all statistical questions and/or has many errors |
| | | <input type="checkbox"/> Answers all experimental methodology questions correctly, in detail and logically | <input type="checkbox"/> Answers all experimental methodology questions in some detail | <input type="checkbox"/> Attempts all experimental methodology questions but has errors in answers | <input type="checkbox"/> Does not attempt to answer all experimental methodology questions and/or has many errors |
| SLO 3 Written skills ¹ Max. 20 points, min. 5 points | Context and purpose | Demonstrates a thorough understanding of context, audience, and purpose that focuses all elements of the work. | Demonstrates adequate consideration of context, audience and purpose, and a clear focus of the work. | Demonstrates awareness of context, audience, and purpose of the work. | Does not demonstrate attention to context, audience, and purpose of the work. |
| | Content development | Consistently uses appropriate, relevant and compelling content to illustrate mastery of the subject, conveying the writer's understanding. | Consistently uses appropriate, relevant, and compelling content to explore ideas within the subject. | Use appropriate and relevant content to develop and explore ideas throughout most of the work. | Does not use appropriate and relevant content to develop simple ideas. |
| | Conventions | Detailed attention to and successful execution of all conventions specific to the discipline (organization, content, presentation, formatting, style) | Consistent use of important conventions specific to the discipline. | Follows expectations appropriate for specific discipline for organization, content and presentation. | Does not use a consistent system for basic organization and presentation. |
| | Sources and evidence | Demonstrates skillful use of high-quality, credible, relevant sources to develop ideas that are appropriate. | Demonstrates consistent use of credible, relevant sources to support ideas. | Demonstrates an attempt to use credible and/or relevant sources to support ideas. | Does not use sources to support ideas. |

| Student Learning Outcome | | 4 - Exemplary | 3 - Proficient | 2- Marginal | 1 - Unacceptable |
|---|--|--|--|---|---|
| SLO 5 – PhD Critical thinking and application of inquiry and analysis ³ Max. 36 points, min. 9 points | Has stated the research problem clearly, providing motivation for undertaking the research | Clear statement of the research problem with well stated associated rationale | Statement of research problem with associated rationale | Unclear statement of research problem OR rationale for undertaking the research is not well developed | Unclear statement of research problem AND rationale for undertaking the research is not well developed |
| | Demonstrated the potential value of solution to the research problem in advancing knowledge within the area of study | Clearly states the value of the proposed research | States the value of proposed research | Recognizes the value of the research but didn't state explicitly | Doesn't recognize the potential value of the proposed research |
| | Demonstrates sound knowledge of literature in the area, and of prior work on the specific research problem | Synthesizes in-depth information from relevant sources representing various points of view/approaches | Presents in-depth information from relevant sources presenting various points of view/approaches | Presents information from relevant sources representing limited points of view/approaches | Presents information from irrelevant sources representing limited points of view/approaches |
| | Research is creative and original with well-defined hypotheses or objectives | Highly creative and original with well-defined hypotheses or objectives | Somewhat creative and original with well-defined hypotheses or objectives | Research not very creative and original OR hypotheses or objectives not well-defined | Research neither creative nor original AND hypotheses or objectives not well-defined |
| | Has applied sound state-of-the field research methods/tools to solve the defined problem and has described the methods/tools effectively | All elements of the methodology are skillfully developed. Appropriate methodology may be synthesized from across disciplines or from relevant subdisciplines | Critical elements of the methodology are appropriately developed, however, more subtle elements are ignored or unaccounted for | Critical elements of the methodology are missing, incorrectly developed, or unfocused | Design of experiments demonstrates a misunderstanding of the methodology |
| | Analyzed and interpreted research results/data effectively | Organizes and synthesizes evidence to reveal insightful patterns, differences, or similarities related to focus | Organizes evidence to reveal important patterns, differences, or similarities related to focus | Organizes evidence, but the organization is not effective in revealing important patterns, differences, or similarities | Lists evidence, but it is not organized and/or is unrelated to focus |
| | | | | | |
| | Conclusions | Conclusions are logical extrapolations from the research findings | Conclusions focused solely on research findings. | Conclusions are so general that they apply beyond the scope of the research findings | Conclusions are ambiguous, illogical, or unsupportable from inquiry findings |
| | Demonstrated awareness of broader implications and limitations of the concluded research | Insightfully discusses in detail relevant and supported limitations and implications | Discusses relevant and supported limitations and implications | Presents relevant and supported limitations and implications | Presents limitations and implications but they are possibly irrelevant and unsupported |
| | Has demonstrated capability for independent research in the area of study and expertise in the area, appropriate to the degree | Research was conceived and conducted independently and candidate has demonstrated a high level of expertise in the area | Research was conceived and conducted with minimal supervision. Candidate is confident in the area of research | Research topic and methodology was conceived with much supervision. Candidate shows some competence in the area | Research topic and methodology was provided to the student and candidate shows little expertise in the area |