

GRADUATE HANDBOOK

ENTOMOLOGY AND NEMATOLOGY DEPARTMENT

UNIVERSITY OF FLORIDA

Revised by

**DEBORAH A. HALL
PROGRAM ASSISTANT**

and

**HEATHER J. McAUSLANE
GRADUATE COORDINATOR**

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PREFACE

This handbook provides information for graduate students and faculty on policies and requirements of the Florida Board of Education, the University of Florida Board of Trustees, the University of Florida, the College of Agricultural and Life Sciences (CALs), and the Entomology and Nematology Department.

The handbook does not replace the Graduate School Catalog, which contains the official information concerning rules, regulations, course descriptions, degree requirements, etc. While you are here as a student, you will be governed by the catalog issued in the year of your first enrollment. Faculty and staff will assist the student in meeting all academic requirements that apply to his/her program, but **the student is ultimately responsible**. This is the 17th 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, Dr. Grover C. Smart, and Dr. Donald W. Hall.

We are indebted to the department chair, Dr. John L. Capinera, and the Graduate Committee for editing the manuscript, and to Pamela Howell for typing the course descriptions, compiling the index, and formatting the entire handbook. Members of the Graduate Committee are Drs. Marc A. Branham, Larry W. Duncan, J. Howard Frank, Phillip E. Kaufman, Oscar E. Liburd, and Dan H. Hahn. In addition to editing the handbook, the Graduate Committee plays a prominent role in formulating graduate policies and helping the Office of the Graduate Coordinator run smoothly.

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 (1988-31 July 1993), the late Dr. Armen Charles Tarjan (1 August 1993-31 December 1996), Dr. Grover C. Smart, Jr. (1 January 1997-30 July 2003), and Dr. Donald W. Hall (1 August 2003-31 December 2008).

Heather J. McAuslane
Graduate Coordinator
July 2009

Graduate Student Rights and Responsibilities

Graduate students on assistantship are responsible for assigned duties from either their research advisor or the graduate coordinator, depending on the source of support. This assigned work is in addition to work done on a student's own research. 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 full-time job and may even include some evening and/or weekend obligations. Students are committed to classes, research, seminars and service for at least 40 hours per week (specific hours to be set by the students' advisors). Therefore, students must make arrangements with their faculty advisors for any changes to this requirement or any absences -- including those during University break periods and holidays.

University-mandated rights and responsibilities can be found on the Dean of Students' web site.

<http://www.dso.ufl.edu/studentguide/studentrights.php>

Further helpful information, including grievance procedures, can be found in the Dean of Students' Student Guide. <http://www.dso.ufl.edu/studentguide/>

Plagiarism and Academic Honesty

Plagiarism is a serious problem in academia today, especially with the ease of obtaining information from the World Wide Web. 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, as you will read on the Guide to Plagiarism website referenced below.

Plagiarism is unethical, unacceptable in science, and prohibited by the UF Student Honor Code (appropriate sections of the Honor Code are appended to this document). The consequences for plagiarism while at the University of Florida range from receiving a grade of zero for the plagiarized assignment or a failing grade for the course, to, for repeated offenses, expulsion from the university. Plagiarism after graduate training calls into question one's scientific integrity and can lead to banning of publication in journals and the loss of jobs/careers.

In some countries, it is an acceptable practice to write in a way that faculty members at the University of Florida consider to be 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.

Students who plagiarize will be caught and consequences will be applied. Many faculty in our department check all written assignments using an anti-plagiarism software called Turnitin® (<http://www.at.ufl.edu/~turnitin/about.html>).

Please understand that our purpose in bringing to your attention the matter of plagiarism is to help train you to be ethical scientists, not to impugn your character.

George Smathers' Library Guide to Plagiarism

Before you take your first class at the University of Florida, please go to the following website, take the pretest, work through each of the three tutorials and take the post-tests after each tutorial. Topics of the three tutorials are:

1) What is Plagiarism?, 2) UF Honor Code, and 3) Citing Made Easy.

http://www.uflib.ufl.edu/msl/services/tutorials/plagiarism/student_intro.html

You may wish to talk to your major professor after you have worked through the tutorials to let them know you are aware of what constitutes plagiarism and how to cite appropriately.

Student Honor Code

(copied entirely from the Dean of Students Office website
<http://www.dso.ufl.edu/sccr/honorcodes/honorcode.php>)

Preamble: In adopting this Honor Code, the students of the University of Florida recognize that academic honesty and integrity are fundamental values of the University community. Students who enroll at the University commit to holding themselves and their peers to the high standard of honor required by the Honor Code. Any individual who becomes aware of a violation of the Honor Code is bound by honor to take corrective action. Student and faculty support are crucial to the success of the Honor Code. The quality of a University of Florida education is dependent upon the community acceptance and enforcement of the Honor Code.

The Honor Pledge:

We, the members of the University of Florida community, pledge to hold ourselves and our peers to the highest standards of honesty and integrity by abiding by the Honor Code.

On all work submitted for credit by students at the University of Florida, the following pledge is either required or implied: "**On my honor, I have neither given nor received unauthorized aid in doing this assignment.**"

(3) VIOLATIONS OF THE STUDENT HONOR CODE.

(a) Plagiarism. A student shall not represent as the student's own work all or any portion of the work of another. Plagiarism includes but is not limited to:

1. Quoting oral or written materials including but not limited to those found on the internet, whether published or unpublished, without proper attribution.
2. Submitting a document or assignment which in whole or in part is identical or substantially identical to a document or assignment not authored by the student.

(b) Unauthorized Use of Materials or Resources ("Cheating"). A student shall not use unauthorized materials or resources in an academic activity. Unauthorized materials or resources shall include:

1. Any paper or project authored by the student and presented by the student for the satisfaction of any academic requirement if the student previously submitted substantially the same paper or project to satisfy an academic requirement and did not receive express authorization to resubmit the paper or project.
2. Any materials or resources prepared by another student and used without the other student's express consent or without proper attribution to the other student.
3. Any materials or resources which the faculty member has notified the student or the class are prohibited.
4. Use of a cheat sheet when not authorized to do so or use of any other resources or materials during an examination, quiz, or other academic activity without the express permission of the faculty member, whether access to such resource or materials is through a cell phone, PDA, other electronic device, or any other means.

(c) Prohibited Collaboration or Consultation. A student shall not collaborate or consult with another person on any academic activity unless the student has the express authorization from the faculty member.

1. Prohibited collaboration or consultation shall include but is not limited to:

- a. Collaborating when not authorized to do so on an examination, take-home test, writing project, assignment, or course work.
- b. Collaborating or consulting in any other academic or co-curricular activity after receiving notice that such conduct is prohibited.

c. Looking at another student's examination or quiz during the time an examination or quiz is given. Communication by any means during that time, including but not limited to communication through text messaging, telephone, email, other writing or verbally, is prohibited unless expressly authorized.

2. It is the responsibility of the student to seek clarification on whether or not use of materials or collaboration or consultation with another person is authorized prior to engaging in any act of such use, collaboration or consultation. If a faculty member has authorized a student to use materials or to collaborate or consult with another person in limited circumstances, the student shall not exceed that authority. If the student wishes to use any materials or collaborate or consult with another person in circumstances to which the authority does not plainly extend, the student shall first ascertain with the faculty member whether the use of materials, collaboration or consultation is authorized.

(d) False or Misleading Statement Relating to a Student Honor Code Violation. In reporting an alleged Student Honor Code violation, a student shall not intentionally or in bad faith make a false or misleading statement. During the course of a Student Honor Code proceeding, or on final appeal following such a proceeding, a student shall not at any time make a false or misleading statement to any person charged with investigating or deciding the responsibility of the accused, reviewing a finding of responsibility, or determining or reviewing the appropriateness of the sanction or sanctions to be recommended or imposed.

(e) False or Misleading Statement for the Purpose of Procuring an Academic Advantage. A student shall not intentionally or in bad faith make a false or misleading statement for the purpose of procuring from the person to whom the statement is made an academic advantage for any student.

(f) Use of Fabricated or Falsified Information. A student shall not use or present invented or fabricated information, falsified research, or other finding if the student knows or in the exercise of ordinary care should be aware that the information, research, or other finding has been fabricated or falsified.

(g) Interference with or Sabotage of Academic Activity. A student shall not do any act or take any material for the purpose of interfering with or sabotaging an academic activity. Sabotage includes, but is not limited to:

1. Removing, concealing, damaging, destroying, or stealing materials or resources that are necessary to complete or to perform the academic activity.
2. Tampering with another student's work.
3. Stealing from another student materials or resources for the purpose of interfering with the other student's successful completion or performance of the academic activity or of enhancing the offending student's own completion or performance.

(h) Unauthorized Taking or Receipt of Materials or Resources to Gain an Academic Advantage. A student shall not without express authorization take or receive materials or resources from a faculty member for the purpose of gaining academic advantage.

(i) Unauthorized Recordings. A student shall not without express authorization from the faculty member and, if required by law, from other participants, make or receive any recording, including but not limited to audio and video recordings, of any class, co-curricular meeting, organizational meeting, or meeting with a faculty member.

(j) Bribery. A student shall not offer, give, receive, or solicit a bribe of money, materials, goods, services or anything of value for the purpose of procuring or providing an academic advantage.

(k) Submission of Paper or Academic Work Purchased or Obtained from an Outside Source. A student shall not submit as his or her own work a paper or other academic work in any form that was purchased or otherwise obtained from an outside source. An outside source includes but is not limited to a commercial vendor of research papers, a file of research papers or tests maintained by a student organization or other body or person, or any other source of papers or of academic work.

(l) Conspiracy to Commit Academic Dishonesty. A student shall not conspire with any other person to commit an act that violates the Student Honor Code.

(2) Student Honor Code Sanctions. For a violation or violations of the Honor Code, a student may receive any of the sanctions that can be imposed for Student Conduct Code violations, including but not limited to conduct probation, suspension and expulsion as well as any educational sanctions. In addition, students may receive the following:

(a) Assignment grade penalty. The student is assigned a grade penalty on an assignment including but not limited to a zero.

(b) Course grade penalty. The student is assigned a grade penalty in the entire course including but limited to an "E".

(3) Student Conduct Code Sanctions.

(a) Reprimand: The student is given formal written notice and official recognition that the behavior has violated the Student Conduct Code.

(b) Loss of University Privileges: Loss of University privileges comprises the denial of specific University privileges including but not limited to attendance at athletic functions, unrestricted library use, parking privileges, university computer usage, and residence hall visitation for a designated period of time.

(c) Conduct Probation: The student is deemed not in good standing with the University. Students on conduct probation cannot represent the University on any athletic team other than intramurals, hold an office in any student organization registered with the University, represent the University in any extracurricular activity or official function or participate in any study abroad program. The duration of any probation period or any conditions or sanctions imposed for the violation shall be in proportion to the seriousness of the violation and imposed on an individual basis by the sanctioning authority. Individuals placed on conduct probation are subject to suspension or expulsion should they violate the conditions of probation or any University regulations or policies while on conduct probation.

(d) Deferred Suspension: The student will be officially suspended from the University, but the suspension will be deferred. The suspension will automatically be enforced for any subsequent violation of the Student Honor Code or Student Conduct Code, as applicable. The hearing authority will specify when issuing a deferred suspension which violations will automatically trigger the enforcement of the deferred suspension. If a student commits a violation of the Student Honor Code or Student Conduct Code, as applicable, while on deferred suspension and is found responsible, then, unless the Director of Student Conduct and Conflict Resolution determines otherwise in exceptional circumstances, the student is automatically suspended in addition to the other sanctions imposed for the subsequent violation. Suspensions can be deferred for a semester or indefinitely.

(e) Suspension: The student is required to leave the University for a given or indefinite period of time, the determination of which shall depend upon specified acts of the student's own volition related to mitigation of the offense committed. The student must comply with all conditions imposed prior to re-enrolling unless told otherwise by the hearing authority. Students who are suspended for more than one semester will need to apply for readmission.

(f) Expulsion: The student is permanently deprived of his or her opportunity to continue at the University in any status.

(g) Restitution: The student is required to pay for loss of or damages to University property, provided that such payment shall be limited to the actual cost of repair or replacement of such property.

(h) Repair of Harm through Community/University Service Work Hours: A student is required to complete a specified number of hours of service to the campus or general community.

(i) Educational Requirements: A student is required to complete a specified educational sanction related to the violation committed. Such educational requirements include completion of a seminar, report, paper, project, alcohol or drug consultation, counseling consultation or psychological evaluation.

(j) Residence Hall Transfer or Removal: A student is required to transfer residence halls or leave the residence halls for a specified or indefinite period of time.

(k) No Contact Order: A no contact order is a directive to refrain from any intentional contact, direct or indirect, with one or more designated persons or group(s) through any means, including personal contact, email, telephone, or third parties.

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ENTOMOLOGY AND NEMATOLOGY DEPARTMENT

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GRADUATE STUDENT CHECKLIST

PLEASE READ CAREFULLY

NOTE: The student is responsible for fulfilling all requirements and meeting all deadlines.

<u>COMPLETION DATE</u>	<u>WHAT / WHEN / WHERE</u>
__ 1. Meet with Graduate Coordinator	Upon arrival - Rm 1028
__ 2. Check Schedule of Courses online	Upon arrival
__ 3. New Students: Attend Graduate School and departmental orientation sessions	You have been notified of date, time and place
__ 4. Complete payroll and appointment forms for assistantship, if appropriate	By appointment - Glinda Burnett gburnett@ufl.edu or 273-3904
__ 5. Conditionally admitted students: check date and time for screening tests for language and writing programs	Upon arrival - See Debbie, Rm 1028
__ 6. Student ID card	Upon arrival - Reitz Union Welcome Center
__ 7. Parking permit	Upon arrival - Traffic and Parking Building
__ 8. Key to building/computer lab	Upon arrival - See Nancy Sanders, Rm 1017
__ 9. Have picture taken for bulletin board display	See Debbie, Rm 1028 for an appointment
__ 10. Meet with major professor to determine courses to take the first semester	Upon arrival
__ 11. Register	See Debbie, Rm 1028 (Late registration fee is \$100.00; Late payment fee is \$100.00)
__ 12. First committee meeting	Completed no later than end of first semester; contact Debbie at dahall@ufl.edu for form (or see Appendix H)
__ 13. Ph.D. students: for possible transfer of up to 30 credits from M.S. degree	Must be done the first semester enrolled; official M.S. final transcript must be provided
__ 14. Program of study	Meet with committee to complete no later than end of the second semester or records will be flagged; contact Debbie at dahall@ufl.edu for forms by email (or see Appendix I)
__ 15. Oral and written research proposal	M.S. students by end of the second semester; Ph.D. students at least one full semester prior to qualifying exam; written proposal must be submitted to supervisory committee and Graduate Coordinator at least 10 days prior to oral presentation; see Debbie Hall for room reservation for oral presentation
__ 16. Letters of appointment and evaluation	Prior to the end of each semester; student and committee chair must sign and return forms to the business office, Room 1021
__ 17. Ph.D. qualifying exam; written and oral	Should be taken the third semester and no later than fifth semester of graduate study beyond M.S.; arrange date and time with supervisory committee as early as possible; give Debbie title, date, and time at least 10 days prior to date; Reserve room with Debbie, Room 1028
__ 18. Admission to candidacy for Ph.D.	Form submitted to Graduate School upon satisfactory completion of oral qualifying exam

COMPLETION DATE	WHAT / WHEN / WHERE
__ 19. Registration for Doctoral Research	<u>ENY 7980</u> or <u>NEM 7980</u> may be used only after qualifying exam has been passed
__ 20. Guide for Preparation of Thesis and Dissertation	On the web at: http://gradschool.rgp.ufl.edu/etd
__ 21. Application for Degree	Check degree application deadline; <u>must</u> apply for degree <u>each</u> term you expect to graduate
__ 22. M.S. department defense deadline	Check with Debbie for department deadline
__ 23. First submission of thesis or dissertation to the Graduate School	See “DEADLINES” for <u>each</u> submission of your thesis or dissertation; see Debbie in Room 1028
__ 24. Dissertation defense and M.S. final exam	Arrange date with <u>all</u> committee members as early as possible; give the title, date and time to Debbie at least 10 days prior to defense; use this form; reserve room with Debbie, Room 1028
__ 25. Exit seminar: <u>Required</u> of all M.S. with thesis	Given the term of graduation one hour prior to final exam candidates and all Ph.D. candidates; reserve room with Debbie, Room 1028
__ 26. M.S. non-thesis oral exam	See Debbie for room assignment and preparation of written announcement; clear date with supervisory committee
__ 27. Final copy of thesis or dissertation	Provide Graduate Coordinator’s office with a final copy of thesis or dissertation prior to graduation
__ 28. Exit email to department chairperson	capinera@ufl.edu , 273-3905
__ 29. Exit interview with Steve Lasley	sel@ufl.edu , 273-3900
__ 30. *Return all items checked out of stockroom	As soon as possible, to stockroom, Room 2326
__ 31. *Return all keys issued by the department	As soon as possible, to Nancy Sanders, Room 1017

***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/>

Since the information is available on our web site, except in special circumstances, the Office of the Graduate Coordinator no longer mails out application packets of materials. Students must apply online, by visiting the University of Florida web site where information is available to guide the student through the application process. If the student prefers not to apply online, forms may be printed, filled out, and submitted by mail. The \$30.00 application fee and residency form must be submitted before the department may review the application.

<http://gradschool.rgp.ufl.edu/students/application-and-admission.html>

To be admitted to the Graduate School, the student must have earned a bachelor's degree from an accredited college or university. 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)

Applicants must provide the **Office of Admissions** with official transcripts of all previous college and/or university studies and official GRE and TOEFL (if applicable) scores submitted directly from ETS (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. Send documents to the Office of Admissions (201 Criser Hall, P.O. Box 114000, University of Florida, Gainesville, FL 32611-4000) -- **not to the Graduate School**.

Our department requires the following documents, which should be sent to the Graduate Coordinator, and not to the Office of Admissions: (a) a 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 potential; (c) the form requesting an assistantship or fellowship, unless you are funded by another organization such as your institution,

government, a granting agency, or are self-funded; (d) copies of transcripts with degree statement (photocopies are satisfactory); and (e) a copy of your GRE general test score.

Also, we require that a prospective student find a faculty member who will be his/her major advisor and provide a research opportunity, which may include an assistantship. We do not review application documents for graduate study until students have a faculty advisor and until the source of funding is known. The faculty member must provide a letter to the Graduate Coordinator's Office stating that she/he will supervise the student and whether she/he also will provide funding.

Our Graduate Committee, chaired by the Graduate Coordinator, makes the admission decision, not the University. If a student is denied admission by our Graduate Committee and wishes to appeal the decision, the Department Chairperson and the Graduate Coordinator 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 GRE score 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 no grade less than a "B" on the first 12 hours of required graduate courses.

Successful students (both domestic and international) usually have scores of approximately 500 each on the verbal and quantitative parts of the GRE. However, the GRE is only one of the criteria considered by the Graduate Committee in its admission decisions. For domestic students, our department requires a minimum GPA of 3.0 (4.0 system) on the last 60 credits of upper division undergraduate work.

For international students whose language of academic instruction is not English, we require a minimum score of 550 on the paper-based TOEFL, 213 on the computer-based TOEFL, or 80 on the internet-based TOEFL. Additionally, international students must certify financial responsibility as stipulated in the documents obtained from the University of Florida International Center web site (<http://www.ufic.ufl.edu>). 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)

Only the very best students will be considered for acceptance into the Ph.D. program without first completing the M.S. degree. The following requirements will apply:

- 1) Undergraduate GPA at least 3.5
- 2) Combined GRE Verbal and Quantitative scores of 1250
- 3) Previous biological sciences research experience (e.g., undergraduate thesis, published paper[s], presentation or poster at scientific meeting)
- 4) Clear and focused statement of intent (professional goals and research area)
- 5) Strong letters of recommendation
- 6) Strong support from Department of Entomology and Nematology Dissertation advisor for student to go straight into the Ph.D. program

Exceptions for students not meeting all of the above criteria would require a unanimous vote of the Graduate Committee.

FINANCIAL ASSISTANCE

DOMESTIC STUDENTS

Gahan Assistantships

The Gahan assistantships were established by the late Dr. James B. Gahan, USDA Entomologist, and his wife, Mrs. Margaret H. Gahan, to be awarded to outstanding M.S. or Ph.D. students in entomology according to personal goals, interests, and academic achievements. Students awarded these assistantships are given a stipend and tuition waivers. Students awarded a Gahan assistantship will be assigned teaching duties by the Graduate Coordinator.

Steinmetz Assistantships

The Steinmetz assistantships were established by Mr. C.P. and Mrs. Lynn Steinmetz to be awarded to outstanding M.S. or Ph.D. students. Students awarded these assistantships are given a stipend and tuition waivers.

Departmental Assistantships

The department has a few teaching assistantships that can be awarded to outstanding M.S. or Ph.D. students on a semester by semester availability. Students awarded these assistantships are given a stipend and tuition waivers. Teaching duties are assigned by the Graduate Coordinator. See Table 1 for the maximum number of semesters that the Gahan, Steinmetz, and departmental assistantships may be held.

Table 1. Number of Semesters that Gahan, Steinmetz, and Departmental Assistantships may be held

<u>Degree Sought</u>	<u>No. of Semesters*</u>
Masters (M.S. with thesis or M.S. non-thesis)	6
Ph.D. (M.S. earned elsewhere or not sought)	9
M.S. and Ph.D. at the University of Florida	15

* Summer semester "C" counts as a semester

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 and tuition waivers. The faculty members holding the grants determine the length of time these assistantships may be held.

Work Requirements for Assistantship Holders

Most assistantships are 1/4, 1/3 or 1/2 time. Recipients of 1/4 time assistantships are obligated to work 10 hours per week at whatever assignments their advisors designate. Recipients of 1/3 time assistantships are obligated to work 13 hours per week and recipients of 1/2 time 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 Gahan, Steinmetz, and departmental assistantships, the Graduate Coordinator determines the work to be done, which usually is as a laboratory instructor.

Stipends

Stipends for Gahan, Steinmetz, and departmental assistantships are determined by the Graduate Coordinator. Stipends for assistantships funded from grants are determined by faculty members who hold the grants.

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 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, 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.

Fellowships

There is one university-wide fellowship (UF Graduate School Fellowship) awarded on a highly competitive basis for students seeking a Ph.D. The Graduate Committee nominates outstanding students for these fellowships. Nominations must be made in January for the following Fall semester. Students nominated must have been accepted by our department, but not yet enrolled.

Scholarships

A number of scholarships, usually ranging from \$500 to \$2000, are awarded from endowment funds provided by families, clubs, 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 apply for these scholarships, and usually a letter from the advisor must be included in the application packet. More information is available on the College of Agriculture and Life Sciences web site (<http://cals.ufl.edu/graduate/awards.shtml>).

Employment

Some domestic graduate students support themselves by working part 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 fee 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.

Office of Graduate Minority Affairs

The Florida Board of Education Summer Program. This program is held in Summer B semester and is designed for under-represented minority graduate students. Participants receive a stipend of \$1500 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 FAMU African-American graduate students. The University of Florida provides five fellowships annually and all graduate programs at UF may compete for them. The application deadline is 15 February each year.

McKnight Doctoral Fellowships. These fellowships are awarded by the Florida Education Fund to African-American students newly admitted into selected doctoral programs. The stipend is for \$12,000 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/mdf.html>. The telephone number is 813-272-2772.

The Office of Graduate Minority Affairs may be reached at 235 Grinter Hall, telephone 352/392-6444, or 800-753-9798 (email address: ogmp@ufl.edu, and on the web at: <http://gradschool.ufl.edu/diversity/introduction.html#ogmp>).

Florida Residency

The University of Florida requires all eligible non-Florida residents to apply for Florida Residency Status during their first year. Instructions for application for Florida residency are found on your Letter of Offer. If you are not eligible to apply for residency, then you must contact the Graduate Coordinator's Office for further guidance.

INTERNATIONAL STUDENTS

International students are funded by their institutions, governments, organizations such as US-AID (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 assistantship will pay tuition fees at in-state rates the entire time they are on assistantship. They must demonstrate financial resources of \$37,400 per year to be permitted to come to the United States as a student.. An additional \$6,000 is required for your spouse and \$2,500 for each child (These dollar amounts were current for 2008-2009 academic year but most likely will be increased in future years.

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. Ignorance of a rule does not constitute a basis for waiving that rule.

Completion of Degree Requirements

All students are expected to complete degree requirements and graduate within a reasonable time. An M.S. with thesis or M.S. non-thesis can be earned in two years (6 semesters), and a Ph.D. degree in three years (9 semesters) after the masters degree. However, since research is not predictable, it often takes longer to complete the M.S. and Ph.D. degree requirements. See Table 1 for the number of semesters that a student may hold a Gahan, Steinmetz, or departmental assistantship.

Registration

Students enrolled at the University of Florida may pre-register for the next semester, register during the regular registration period, or register late during the drop/add period. Currently, the charge for late registration is \$100.00, and the charge for late payment of fees is \$100.00. To avoid these charges, register on time and pay fees on time. You may register through ISIS (Integrated Student Information System), or through the Departmental Student Services Office, Room 1028.

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	12	4		4	8
Assistants on .01-.24 and/or fellows and trainees	12	4		4	8
Assistants on .25-.74	9	3		3	6
Assistants on .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	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.

Students who do not register properly (according to the above table) 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 at 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 the advisor. After the regular drop/add period, the student will be held fee liable for any dropped course or change of section number. Students should assess the need to drop a course as soon as possible; overloads will not necessarily be viewed as a hardship. 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 6910 (Supervised Research), 6931 (Seminar), 6932 (Special Topics), 6940 (Supervised Teaching), 6971 (Master's Research), 7979 (Advanced Research), and 7980 (Doctoral Research).

Program of Study

The Program of Study 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 an informal record of previous studies (forms available electronically). 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. Schedule this meeting 10 days in advance with Debbie Hall, Room 1028.

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, 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. The evaluation must be made by the student's advisor (or possibly by the entire Supervisory Committee). The evaluation form must be signed by the student and the advisor and returned to the Graduate Coordinator's office.

MINIMUM COURSE REQUIREMENTS

Entomology Students

Masters Degree Students shall take, or shall have taken, the following courses:

- A course in insect physiology
- A course in insect classification
- A graduate course in ecology
- Entomology Seminar (must register for at least one semester at UF). Must be “graded”
- A course in biochemistry or molecular biology (see list below)
- A beginning course in statistics
- A pest management course (see list below)*

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

- A graduate course in insect physiology
- A graduate course in insect classification
- A graduate course in ecology
- Entomology Seminar (must register for at least two semesters at UF). Must be “graded”
- A course in biochemistry or molecular biology (see list below)A 4000 level or higher course in statistics
(see Appendix D)
- A pest management course (see list below)*

***Pest Management Courses - must take at least one**

- PMA 6228 Field Techniques in Integrated Pest Management
- ENY 5226 Principles of Urban Pest Management
- ENY 5236 Insect/Pest/Vector Management
- ENY 5245 Agricultural Acarology
- ENY 5241 Biological Control
- ENY 6821 Insect Pathology
- ENY 6665 and ENY 6665L Advanced Medical and Veterinary Entomology
- NEM 5707 Plant Nematology

Nematology Students

Masters Degree Students

- A beginning course in nematology
- Nematode Morphology and Anatomy
- Nematode Taxonomy and Systematics
- A graduate course in ecology
- Nematology Seminar (must register for at least one semester at UF)
- A course in biochemistry or molecular biology (see list below)
- A beginning course in statistics
- A pest management course (see list below)*

Doctoral Students

- A beginning course in nematology
- Nematode Morphology and Anatomy
- Nematode Taxonomy and Systematics
- A graduate course in ecology
- Nematode Identification
- Nematology Seminar (must register for at least two semesters at UF)
- A course in biochemistry or molecular biology (see list below)
- A 4000 level or higher course in statistics (see Appendix D)
- A pest management course (see list below)*

***Pest Management Courses - must take at least one**

- PMA 6228 Field Techniques in Integrated Pest Management
- ENY 5226 Principles of Urban Pest Management
- ENY 5236 Insect/Pest/Vector Management
- ENY 5245 Agricultural Acarology
- ENY 5241 Biological Control
- ENY 6821 Insect Pathology
- ENY 6665 and ENY 6665L Advanced Medical and Veterinary Entomology
- NEM 5707 Plant Nematology

Some Courses at the University of Florida which Satisfy Basic Requirements

For biochemistry

BCH 3023 Elementary Organic and Biological Chemistry (Botany Department)

BCH 3025 Fundamentals of Biochemistry (Food Science and Human Nutrition Dept.)

BCH 5045 Graduate Survey of Biochemistry (Agriculture General)

For molecular biology

ENY 6822 Molecular Biology Techniques with Invertebrates and Their Pathogens (Maruniak)

ENY 5820 Insect Molecular Genetics (Hoy)

For statistics (see description of content of additional statistics courses in Appendix D)

STA 2023 Introduction to Statistics (Statistics Department) - beginning course in statistics

STA 6166 Statistical Methods in Research I (Statistics Department)

Master of Science with Thesis

Supervisory Committee

The Supervisory Committee should be appointed as soon as possible but no later than the mid-point of the second semester of study. The Graduate School requires that the Supervisory Committee be comprised of at least two Graduate Faculty members. Two members must be from the Entomology and Nematology Department. If the student declares a minor (not required), one of the Supervisory Committee members must be from the minor department. The Supervisory Committee chair and one member must have been appointed to the Graduate Faculty. 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.

Research Proposal

Students beginning the M.S. with thesis program Fall, 2006 and after 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 G for outline and evaluation form). The written proposal and announcement of the oral presentation must be emailed to Debbie Hall 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.

Program of Study

The student must meet with his/her major professor to complete a preliminary Program of Study and turn in a signed copy to the Graduate Coordinator's Office no later than the end of first semester or records will be flagged. As soon as the Advisory Committee is formed, they should approve the Program of Study and the updated Program of Study with signatures of committee members should be filed in the Graduate Coordinator's office at that time.

Number of Credits Required

A minimum of 30 credit hours is required, six of which must be ENY 6971 or NEM 6971, Research for Master's Thesis. Total registration for 6971 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, regardless of the number of previous credits taken. Students on assistantships during the term of graduation must register for at least 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.

Twelve of the 30 credits must be courses in the major, numbered 5000 or above, and letter-graded (no S/U). A minimum GPA of 3.0 is required in the major, the minor (if chosen), and to graduate. If a minor is chosen, the minor representative will determine the requirement for his/her department. For work outside the major, 6 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 College of Agricultural and Life Sciences (CALS) requires a paper copy of the academic abstract that may be on copy paper. The Entomology and Nematology Department requires a paper copy of the entire thesis 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 thesis, as may other members of the committee. The thesis must be approved by all members of the Supervisory Committee, the Associate Dean, CALS, and the Dean of the Graduate School. Information on format of the thesis may be obtained from the web at:

<http://gradschool.ufl.edu/editorial/introduction.html>.

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 Seminar and Final Examination

The student must give an exit seminar and pass a final examination administered by the Supervisory Committee. 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, and an original bond paper signature page prepared for the committee members' signatures. 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 preceding the final examination.

Exit Email to Department Chairperson

All students must send an email to the Department Chairperson (copied to the Graduate Coordinator) with a short statement describing the quality of her/his experience as a student in the Department and information regarding plans for the immediate future regarding employment (Academic or Industry) or continued education.

Exit Interview with Steve Lasley

All students must have an exit interview with Steve Lasley after completing their degrees and prior to leaving UF.

Master of Science Non-Thesis

Supervisory Committee

The Supervisory Committee should be appointed as soon as possible but no later than the mid-point of the second semester of study. If the committee is not appointed before the end of the second semester, the Graduate Coordinator will place a hold on the student's record preventing further registration. The Graduate School states that the Supervisory Committee may be comprised of only one faculty member but our department requires at least two. If the student declares a minor (not required), one of the Supervisory Committee members must be from the minor department. The chairperson of the supervisory committee must have been appointed to the Graduate

Faculty. Special member status may be granted to non-University of Florida members. A Special member may not serve as the committee chair or external member.

Program of Study

The student must meet with his/her major professor to complete a preliminary Program of Study and turn in a signed copy to the Graduate Coordinator's Office no later than the end of first semester or records will be flagged. As soon as the Advisory Committee is formed, they should approve the Program of Study and the updated Program of Study with signatures of committee members should be filed in the Graduate Coordinator's office at that time.

Number of Credits Required

Minimum requirements are 30 credit hours. Six of these 30 credits may be S/U graded. At least 15 of the 30 credits must be graded courses in the major at the 5000 level. One or two minors of at least six credits each may be chosen [minor(s) not required]. Six credits outside the major may be courses numbered 3000 and 4000. A minimum GPA of 3.0 is required in the major, the minor, and to graduate.

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. A petition requesting the change must be forwarded through the Graduate Coordinator and the Associate Dean, CALS, to the Graduate School at least one full semester prior to the intended graduation date. 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 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 by itself and warrants credit as a Special Problem or Selected Study. The petition must be addressed to the Dean of the Graduate School and approved by the Graduate Coordinator and the Associate Dean, CALS.

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.

Exit Email to Department Chairperson

All students must send an email to the Department Chairperson (copied to the Graduate Coordinator) with a short statement describing the quality of her/his experience as a student in the Department and information regarding plans for the immediate future regarding employment (Academic or Industry) or continued education.

Exit Interview with Steve Lasley

All students must have an exit interview with Steve Lasley after completing their degrees and prior to leaving UF.

Distance Master of Science Non-Thesis

Students completing the M.S. non-thesis by distance are held to the same requirements as campus-based students except for two. First, students may be allowed to waive the seminar course requirement if arrangements cannot be made to participate in campus seminars by Polycom or attend seminars organized at University of Florida Research and Education Centers. Second, at the discretion of the student's supervisory committee, the final exam may be oral, written or both.

Doctor of Philosophy in Entomology and Nematology

Admission to the Ph.D. program after completing an M.S. program at UF. is not automatically permitted. The student must write a letter to the Graduate Coordinator requesting continuation and containing a new Statement of Purpose. Also, the student's former advisor must write a letter to the Graduate Coordinator evaluating the academic ability of the student to complete the Ph.D. program successfully. The new advisor must write a letter stating that he/she will supervise the student and whether he/she also will provide funding. One additional letter of recommendation is required (3 letters in total). 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. (If the former and new advisors are the same, all information may be in one letter). All application documents must be received by the Graduate Coordinator's Office prior to mid-semester of the graduation term.

Supervisory Committee

A student who obtains an M.S. degree in the Entomology and Nematology Department and remains for the Ph.D. degree must have a Supervisory Committee appointed and a Program of Study completed during the first semester of the Ph.D. program.

The Graduate School and the Entomology and Nematology Department require that all Ph.D. Supervisory Committees be comprised of at least four faculty members. At least two members, including the chair, must be from this department and one must be from a different department (the "external" member). The chairperson and external member of the supervisory committee must have been appointed to the Graduate Faculty. Special member status may be granted to non-University of Florida 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. The committee should meet with the student at about the mid-point of the research to review procedures, progress, expected results, and make suggestions for completion of the program.

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, 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. 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.

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.

2. 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.

3. 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.

4. External Member

- a. Must be 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 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. Co-chair and chair should both assume responsibility for the success of the student's graduate experience.

Research Proposal

Students beginning the Ph.D. program Fall, 2006 and after 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 G for outline and evaluation form). The written proposal and announcement of the oral presentation must be emailed to Debbie Hall 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 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. 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.

Program of Study

The student must meet with his/her major professor to complete a preliminary Program of Study and turn in a signed copy to the Graduate Coordinator's Office no later than the end of first semester or records will be flagged. As soon as the Advisory Committee is formed, they should approve the Program of Study and the updated Program of Study with signatures of committee members should be filed in the Graduate Coordinator's office at that time.

Number of Credits Required

A minimum of 90 credit hours beyond the bachelor's degree is required. 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 of ENY 7980 or NEM 7980 Research for Doctoral Research during the term of graduation. Students on assistantships during the semester of graduation, must take 9 credits in the fall or spring semester and 6 in the summer semester. Fellowship holders must register for 12 credits in the fall or spring semester and 8 credits in the summer semester.

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. Students failing to meet this deadline must appear before the Department Graduate Committee to request permission to register. 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 members of the Supervisory Committee must be together with the student for the oral portion of the Qualifying Examination. 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.

Between the oral portion of the Qualifying Examination and graduation, at least 2 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, the Graduate School must be notified. A re-examination may be requested, but it must be recommended by the Supervisory Committee and approved by the Graduate School. 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, 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.

Electronic Submission of the Dissertation

All students must submit their dissertations electronically. Information on format may be obtained from the web at <http://gradschool.ufl.edu/editorial/introduction.html>.

For electronic submission, CALS requires a paper copy of the academic abstract (may be on copy paper). The Entomology and Nematology Department requires a paper copy of 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 dissertation must be approved unanimously, and signed by all members of the Supervisory Committee (at the defense), the Associate Dean, CALS, and the Dean of the Graduate School.

Publication of the Dissertation by Microfilm

Since all dissertations are published by microfilm, 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.

All candidates for the Ph.D. degree must pay \$55 to University Financial Services, S113 Criser Hall for microfilming, and must sign an agreement authorizing publication by microfilm.

The candidate may choose to register the copyright of the microfilmed dissertation for a charge of \$45, payable by certified check, cashiers' check, or money order, to B&H and attached to the signed microfilm agreement form.

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 Seminar and Final Examination

The Final Examination may be taken no earlier than the semester preceding the semester in which the degree is conferred. 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 Supervisory Committee members must be present with the student for the Final Examination.

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 Office of the Graduate Coordinator.

Exit Email to Department Chairperson

All students must send an email to the Department Chairperson (copied to the Graduate Coordinator) with a short statement describing the quality of her/his experience as a student in the Department and information regarding plans for the immediate future regarding employment (Academic or Industry) or continued education.

Exit Interview with Steve Lasley

All students must have an exit interview with Steve Lasley after completing their degrees and prior to leaving UF.

Time Limitations

All work for the doctorate must be completed within 5 calendar years after the Qualifying Examination, or this examination must be repeated.

Certification

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

Laboratory Assistants

Graduate students, whether or not on assistantships, are encouraged to serve as Laboratory Assistants in the various courses taught in the department, especially ENY 3005 for entomology students and NEM 3002 for nematology students. Graduate students on Gahan assistantships are required to serve as Laboratory Assistants each semester as part of their duties for holding the assistantship, and those on Steinmetz assistantships may be required to do so. Students on UF Graduate School Fellowships and those funded with matching funds from the CALS Dean or departmental endowment funds will also have teaching responsibilities. The Graduate Coordinator will arrange the time when these students will serve as Laboratory Assistants.

The Laboratory Assistants are in charge of the laboratory but are usually supervised by the course instructor or a senior Laboratory 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.

Students are encouraged to enroll in ENY or NEM 6940, Supervised Teaching, and be evaluated by the students, when serving as Laboratory Assistants.

SERVICES

Libraries

Scientific literature is housed in the Marston Science Library, the Health Sciences Library, and the Division of Plant Industry (DPI) library located in the Doyle Conner Building on the University of Florida campus. The DPI library emphasizes systematic and taxonomic works. The Entomology and Nematology Department Reading Room (Room 1206) contains a small collection of journals, texts, reference books, trade magazines, etc., and houses the theses and dissertations written by former students in the department.

Bibliographic Searches

Finding relevant literature is vastly aided by computer searches of electronic databases. The databases include those used to compile Biological Abstracts, Helminthological Abstracts, Bibliography of Agriculture, and Review of Applied Entomology. Librarians in the Marston Science Library will help devise a search program and provide advice on the use of databases. The Entomology and Nematology Department Computer Laboratory also provides online access to these databases.

Computer Laboratory

The department has an excellent computer laboratory in Room 1012. State-of-the-art hardware provides access to word processing, databases, spreadsheets, graphics, and statistical analysis software. Through this lab students are provided access to electronic mail and library services. All students are required to obtain a Gatorlink email account as soon as possible after arrival on campus.

Statistical Consultation

Statistical services are available to our students. See: the following web site for information: (<http://ifasstat.ifas.ufl.edu/consultingunit/>). The student should consult a statistician for help in designing experiments in order to make sure that the experimental results can be analyzed properly.

Copying

Students may purchase copying cards from Nick Hostettler, Room 3226, to use the copier in the Reading Room. Libraries on campus are equipped with copiers that anyone may use for a charge. Students may not use copy machines or remove supplies from the department copy room.

Photographic Darkroom and Graphics Laboratory

The department has a Graphics Specialist, Jane Medley, available for consultation and assistance with various types of art, graphics, and illustrations. The Graphics Lab, Room 1023, is also equipped with a darkroom. Arrangements for using the facility must be coordinated with the Graphics Specialist.

Employment Notices

Job announcements that we receive are posted outside Room 1031.

Bulletin Boards

Bulletin boards displaying various bits of information are located throughout the building. A mobile 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 Mailboxes

Each graduate student in the Entomology and Nematology department is assigned a mailbox, located in Room 1025, in which to receive regular mail as well as departmental announcements and special notices. Please check your mailbox regularly. Each student is responsible for giving Nancy Sanders (Receptionist) her/his forwarding address.

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.

Urban Entomology Society

The Urban Entomology Society (UES) was begun by students in the urban entomology program to unite and support students with an interest in urban entomology. Membership is offered to all graduate and undergraduate students in the department. UES is involved in many of the same activities as ENSO. Some of the activities are: (a) outreach programs to local schools using insects as teaching tools; (b) constructing insect teaching collections for sale to the pest control industry; (c) sponsoring competitive student research presentations in the department; (d) exhibiting UF/IFAS programs, publications, and software at industry trade shows; and (e) sponsoring social events that allow industry representatives to interact with urban entomology students.

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. The greatly reduced annual dues for student membership include a subscription to the *Florida Entomologist*. Membership application forms are available from the entomology faculty or online at <http://www.flaentsoc.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 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 from the entomology faculty, and on the web at <http://www.entsoc.org>.

Florida Nematology Forum

Students in nematology should attend the annual meetings of the Florida Nematology Forum (FNF). Its meetings are held jointly with the Soil and Crop Science Society of Florida (SCSSF) at various locations in Florida. The

FNF has no dues and no publications, but plans an annual program and business meeting. Students who have completed sufficient research should participate in the Best Student Paper competition of the joint SCSSF/FNF meetings. Monetary awards are given for the first three places in the “soils” division and in the “crops” division. Nematology students have won several of these awards.

Society of Nematologists

All nematology graduate students should become members of the Society of Nematologists (SON), a national organization. Students may apply for associate membership at a reduced rate. Membership forms are available from the nematology faculty and on the society’s web site. Membership includes a subscription to the society’s official publications, *The Journal of Nematology*, *Annals of Applied Nematology*, and *Nematology Newsletter*. The SON provides monetary awards for the first three places in the Best Student Paper competition held annually. DowElanco, through SON, provides needs-based travel grants for a limited number of students to attend the SON annual meetings. Ask nematology faculty how to apply for these awards.

APPENDIX A
FACULTY OF THE ENTOMOLOGY AND NEMATOLOGY DEPARTMENT

Abbreviations

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.
R:	Retired, not accepting students.
E:	Emeritus (retired), not accepting students.
N:	Not accepting students

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 on the Supervisory Committees of graduate students and teach graduate courses.
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2. 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.ars.gov
 3. Ali, Arshad Ph.D., University of Salford, England, 1972. UF/IFAS, Mid-Florida REC-Apopka, 2725 Binion Road, Apopka, FL 32703-8504. Biology, ecology, and control of pest and vector insects; pesticide and biocide impact on nontarget biota in the aquatic ecosystem. Email: umar@ufl.edu
 - 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@ars.usda.gov
 - 3,R. Baranowski, Richard M. Ph.D., University of Connecticut, 1959. UF/IFAS, Tropical REC, 18905 SW 280th Street, Homestead, FL 33031-3314. Management of sub-tropical fruit pests including fruit flies; biology and systematics of the Hemiptera of Florida and the Caribbean. Email: richbara@ufl.edu
 - 2,3. Becnel, James J. Ph.D., University of Florida, 1989. USDA/ARS/CMAVE, PO Box 110970, Gainesville, FL 32611-0970. Biological control; microsporidian parasites of mosquitoes. Email: jamesbecnel@ars.usda.gov
 - 2,3. Bernier, Ulrich. Ph.D., University of Florida, 1995. USDA/ARS/CMAVE, PO Box 110970, Gainesville, FL 32611-0970. Mosquito and fly research. Email: uli.bernier@ars.usda.gov

- 2,3 Bloem, Stephanie. Ph.D., University of California-Davis, 1991. USDA/APHIS/PPQ/CPHST, 1730 Varsity Drive, Suite 300, Raleigh, NC 27606. Area-wide pest management, sterile insect technique and inherited sterility, insect rearing, systematics and taxonomy, biological control, regulatory plant science, risk analysis. Email: stephanie.bloem@aphis.usda.gov
- 3 Borovsky, Dov. Ph.D., University of Miami, 1972. UF/IFAS, Florida Medical Entomology Laboratory, 200 9th Street SE, Vero Beach, FL 32962-4657. Insect biochemist. Email: doobo@ufl.edu
- 3 Boucias, Drion G. Ph.D., University of Kentucky, 1978. UF/IFAS, Entomology and Nematology Dept., PO Box 110620, Gainesville, FL 32611-0620. Insect pathology. Email: pathos@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. Email: marcbran@ufl.edu
- 3 Brito, Janete. Ph.D., University of Florida, 2002. UF/IFAS, Entomology and Nematology Dept., PO Box 110620, Gainesville, FL 32611-0620. Nematology. Email: britoj@doacs.state.fl.us
- 3 Browning, Harold W. Ph.D., University of California-Riverside, 1988. UF/IFAS, Citrus REC, 700 Experiment Station Road, Lake Alfred, FL 33850-2299. IPM on citrus; Center Director. Email: hwbr@ufl.edu
- 3 Buss, Eileen A. Ph.D., University of Kentucky, 1999. UF/IFAS, Entomology and Nematology Dept., PO Box 110620, Gainesville, FL 32611-0620. Turfgrass, ornamental and landscape entomology, IPM. Email: eabuss@ufl.edu
- 3 Capinera, John L. Ph.D., University of Massachusetts, 1976. UF/IFAS, Entomology and Nematology Dept., PO Box 110620, Gainesville, FL 32611-0620. IPM; insect ecology; Department Chair. Email: capinera@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 Cherry, Ronald H. Ph.D., University of Illinois, 1976. UF/IFAS, Everglades REC, PO Box 8003, Belle Glade, FL 33430-8003. Pest management on sugarcane. Email: pinesnpets@aol.com
- 2,3 Cilek, James E. Ph.D., University of Kentucky, 1989. 4000 Frankford Avenue, Panama City, FL 32405. Medical entomology. Email: james.cilek@famu.edu
- 3 Connelly, Cynthia R. Ph.D., Louisiana State University, 1998. UF/IFAS, Florida Medical Entomology Laboratory, 200 9th Street SE, Vero Beach, FL 32962-4657. Medical entomology. Email: crr@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 Cuda, James P. Ph.D., Texas A&M University, 1983. UF/IFAS, Entomology and Nematology Dept., PO Box 110620, Gainesville, FL 32611-0620. Aquatic weed control. Email: jcuda@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 Day, Jonathan F. Ph.D., University of Massachusetts, 1981. UF/IFAS, Florida Medical Entomology Laboratory, 200 9th Street SE, Vero Beach, FL 32962-4657. Mosquito surveillance and epidemiology. Email: jfda@ufl.edu

- 3 Dickson, Donald W. Ph.D., North Carolina State University, 1968. UF/IFAS, Entomology and Nematology Dept., PO Box 110620, Gainesville, FL 32611-0620. Biology and control of nematodes. Email: dwd@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
- 2,3 Edwards, Glavis B., Jr. Ph.D., University of Florida, 1980. FDACS/DPI, PO Box 110980, Gainesville, FL 32611-0980. Spider identification. Email: edwardg@doacs.state.fl.us
- 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
- 1,3 Emmel, Thomas C. Ph.D., Stanford University, 1967. UF/IFAS, McGuire Center for Lepidoptera Research, PO Box 117800, Gainesville, FL 32611-8525. Population biology. Email: tcommel@ufl.edu
- 2,R Esser, Robert P. Ph.D., University of Florida, 1980. FDACS/DPI, PO Box 110980, Gainesville, FL 32611-0980. Nematology.
- 1,3 Flowers, Ralph W. Ph.D., University of Wisconsin, 1975. Florida A&M University, Dept. of Entomology, Tallahassee, FL 32307. Ephemeroptera; Heptageniidae of the U.S.; taxonomy and biogeography of Central American mayflies. Email: rflowers@fam.u.edu
- 3 Frank, J. Howard. Ph.D., Oxford University, 1967. UF/IFAS, Entomology and Nematology Dept., PO Box 110620, Gainesville, FL 32611-0620. Population dynamics; predator-prey relationships; mosquito ecology; biology and taxonomy of Staphylinidae. Email: jhfrank@ufl.edu
- 3 Funderburk, Joseph E. Ph.D., Iowa State University, 1982. UF/IFAS, North Florida REC, 155 Research Road, Quincy, FL 32351-5677. IPM on field crops. Email: jef@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@ars.usda.gov
- 2,3,R Gerberg, Eugene J. Ph.D., University of Maryland, 1954. UF/IFAS, Entomology and Nematology Dept., PO Box 110620, Gainesville, FL 32611-0620. Medical entomology. Email: gene@ifas.ufl.edu
- 3 Giblin-Davis, Robin M. Ph.D., University of California-Davis, 1982. UF/IFAS, Ft. Lauderdale REC, 3205 SW College Avenue, Ft. Lauderdale, FL 33314-7799. Nematology. Email: giblin@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
- 2 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: halbers@doacs.state.fl.us
- 3 Hall, H. Glenn. Ph.D., University of California-Berkeley, 1978. UF/IFAS, Entomology and Nematology Dept., PO Box 110620, Gainesville, FL 32611-0620. Honey bee genetics. Email: hgh@ufl.edu
- 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@ars.usda.gov

- 2,3 Heppner, John B. Ph.D., University of Florida, 1978. FDACS/DPI, PO Box 110980, Gainesville, FL 32611-0980. Systematics of Lepidoptera. Email: heppnej@doacs.state.fl.us
- 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@famuedu
- 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@ars.usda.gov
- 3 Hoy, Marjorie A. Ph.D., University of California-Berkeley, 1972. UF/IFAS, Entomology and Nematology Dept., PO Box 110620, Gainesville, FL 32611-0620. Biological control. Email: mahoy@ufl.edu
- 2 Huang, Yong. Ph.D., University of Wisconsin, 1989. EPCOT Science, PO Box 10000, Lake Buena Vista, FL 32830-1000. Plant pathology, biochemistry, and botany. Email: yong.huang@disney.com
- 1,3 Hubbard, Michael D. Ph.D., Florida State University, 1984. Florida A&M University, Agricultural Research Programs, Aquatic Entomology, Tallahassee, FL 32307. Aquatic entomology; biosystematics of Ephemeroptera. Email: michael.hubbard@famuedu
- 2,3 Hunter, Wayne B. Ph.D., University of Hawaii-Manoa, 1992. U. S. Horticultural Research Laboratory, 2001 S Rock Road, Fort Pierce, FL 34945. Integrated pest management of subtropical insects. Email: wayne.hunter@ars.usda.gov
- 1,3 Kairo, Moses T.K. Ph.D., University of London, 1997. Florida A&M University, College of Engineering Sciences, Technology, and Agriculture, 310 Perry Paige Building, Tallahassee, FL 32307. Biological control. Email: moses.kairo@famuedu
- 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@famuedu
- 3 Kaufman, Phillip E. Ph.D., University of Wyoming, 1997. UF/IFAS, Entomology and Nematology Dept., PO Box 110620, Gainesville, FL 32611-0620. Veterinary entomology. Email: pkaufman@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
- 3 Klassen, Waldemar. Ph.D., University of Western Ontario, Canada, 1963. UF/IFAS, Tropical REC, 18905 SW 280th Street, Homestead, FL 33031-3314. IPM, insect genetics; Center Director. Email: klassen@ufl.edu
- 2,3 Kline, Daniel L. Ph.D., North Carolina State University, 1975. USDA/ARS/CMAVE, PO Box 110970, Gainesville, FL 32611-0970. Medical and veterinary entomology. Email: dan.kline@ars.usda.gov
- 3 Koehler, Philip G. Ph.D., Cornell University, 1972. UF/IFAS, Entomology and Nematology Dept., PO Box 110620, Gainesville, FL 32611-0620. Management urban, pasture, and veterinary pests; 4-H pest management program development; extension entomology. Email: pgk@ufl.edu

- 3 Lawrence, Pauline O. Ph.D., University of Florida, 1975. UF/IFAS, Entomology and Nematology Dept., PO Box 110620, Gainesville, FL 32611-0620. Host-parasite co-evolution; behavioral, endocrinological, and biochemical interactions; reproductive physiology. Email: peggylaw@ufl.edu
- 3 Leibee, Gary L. Ph.D., University of Kentucky, 1979. UF/IFAS, Mid-Florida REC, 2725 Binion Road, Apopka, FL 32703-8504. Pest management on vegetable crops; insecticide resistance. Email: glliebee@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. IPM. Email: oeliburd@ufl.edu
- 1,3 Linser, Paul J. Ph.D., University of Cincinnati, 1977. The Whitney Laboratory. 9505 Ocean Shore Blvd., St. Augustine, FL 32080. Anatomy, cell biology, developmental biology. Email: pjl@whitney.ufl.edu
- 3,R Lloyd, James E. Ph.D., Cornell University, 1966. UF/IFAS, Entomology and Nematology Dept., PO Box 110620, Gainesville, FL 32611-0620. Behavioral ecology of insects; systematics and behavior of Lampyridae. Email: ffdoc@ufl.edu
- 2 Lobinske, Richard. Ph.D., University of Florida, 2001. UF/IFAS, Mid-Florida REC, 2725 Binion Road, Apopka, FL 32703-8504. Aquatic entomology. Email: lobinske@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@ifas.ufl.edu
- 3 Lounibos, L. Philip. Ph.D., Harvard University, 1974. UF/IFAS, Florida Medical Entomology Laboratory 200 9th Street SE, Vero Beach, FL 32962-4657. Mosquito ecology and behavior. Email: lpl@ifas.ufl.edu
- 2 Mankin, Richard W. Ph.D., University of Florida, 1979. USDA/ARS/CMAVE, PO Box 110970, Gainesville, FL 32611-0970. Insect ecology; insect bioacoustics; mating behavior. Email: rmankin@gainesville.usda.ufl.edu
- 3 Mannion, Catharine M. Ph.D., University of Florida, 1992. UF/IFAS, Tropical REC, 18905 SW 280th Street, Homestead, FL 33031-3314. Ornamental pests. Email: cmannion@ifas.ufl.edu
- 3 Maruniak, James E. Ph.D., University of Texas, 1979. UF/IFAS, Entomology and Nematology Dept., PO Box 110620, Gainesville, FL 32611-0620. Genetic engineering; insect pathology. Email: jem@ifas.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. Biochemical ecology and economic entomology. Email: hjmca@ufl.edu
- 3 McSorley, Robert. Ph.D., Purdue University, 1978. UF/IFAS, Entomology and Nematology Dept., PO Box 110620, Gainesville, FL 32611-0620. Nematology. Email: rmcs@ifas.ufl.edu
- 2,3 Meagher, Robert L., Jr. Ph.D., Pennsylvania State University, 1985. USDA/ARS/CMAVE, PO Box 110970, Gainesville, FL 32611-0970. Integrated pest management and insect behavior. Email: robert.meagher@ars.usda.gov

- 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 Mizell, Russell F., III. Ph.D., Mississippi State University, 1980. UF/IFAS, North Florida REC, 155 Research Road, Quincy, FL 32351-5677. Pest management on pecans, woody ornamentals. Email: rfmizell@ifas.ufl.edu
- 3,R Nation, James L. Ph.D., Cornell University, 1960. UF/IFAS, Entomology and Nematology Dept., PO Box 110620, Gainesville, FL 32611-0620. Insect physiology. Email: jl_n@ifas.ufl.edu
- 2,3 Nguyen, Ru. Ph.D., University of Florida, 1975. FDACS/DPI, PO Box 110980, Gainesville, FL 32611-0980. Biological control on citrus. Email: nguyenrdoacs.state.fl.us
- 3 Noling, Joseph W. Ph.D., University of California-Riverside, 1981. UF/IFAS, Citrus REC, 700 Experiment Station Road, Lake Alfred, FL 33850-2299. Nematology. Email: jwnoling@ifas.ufl.edu
- 3 Nuessly, Gregg S. Ph.D., Texas A&M University, 1986. UF/IFAS, Everglades REC, PO Box 8003, Belle Glade, FL 33430-8003. Biological control; insect ecology. Email: gnessly@ufl.edu
- 1,3 O'Brien, Charles W. Ph.D., University of California-Berkeley, 1967. Florida A&M University, Dept. of Entomology, Tallahassee, FL 32307. Systematics (Curculionidae); ecology; biological control. Email: cobrien@famuedu
- 3 O'Meara, George F. Ph.D., University of Notre Dame, 1969. UF/IFAS, Florida Medical Entomology Laboratory, 200 9th Street SE, Vero Beach, FL 32962-4657. Mosquito ecology and physiology. Email: gfo@ifas.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@ars.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@ifas.ufl.edu
- 3 Overholt, William A. Ph.D., Texas A&M University, 1989. UF/IFAS, Indian River REC, 2199 S Rock Road, Ft. Pierce, FL 34945-3138. Biological control of weeds. Email: billlover@ufl.edu
- 2,3 Park, Hyun-Woo. Ph.D., University of California-Riverside, 1999. Florida A&M University, John A. Mulrennan, Sr. Research Laboratory, 4000 Frankford Avenue, Panama City, Florida 32405. Entomopathogenic bacteria of mosquitoes. Email: hyun-woo.park@famuedu
- 2,3,R Patterson, Richard S. Ph.D., Cornell University, 1962. UF/IFAS, Entomology and Nematology Dept., PO Box 110620, Gainesville, FL 32611-0620. Medical entomology. Email: rspatt@ufl.edu
- 3 Peña, Jorge E. Ph.D., University of Florida, 1983. UF/IFAS, Tropical REC, 18905 SW 280th Street, Homestead, FL 33031-3314. Integrated pest management. Email: jepena@ufl.edu
- 3 Pereira, Roberto M. Ph.D. University of Florida, 1991. UF/IFAS, Entomology and Nematology Dept., PO Box 110620, Gainesville, FL 32611-0620. Urban entomology. Email: rpereira@ufl.edu

- 2,3 Perkins, Peter V. Ph.D., University of Florida, 1982. 4607 NW 41st Street, Gainesville, FL 32606. Medical and veterinary entomology. Email: pvperkin@ufl.edu
- 1,3 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
- 2,3 Pettitt, Frederick L. Ph.D., University of Florida, 1988. EPCOT Center, The Land, PO Box 10000, Lake Buena Vista, FL 32830. IPM; biological control; applied ecology.
- 2,3 Porter, Sanford D. Ph.D., Florida State University, 1984. USDA/ARS/CMAVE, PO Box 110970, Gainesville, FL 32611-0970. Behavior and ecology of fire ants; medical entomology. Email: sanford.porter@ars.usda.gov
- 1,3 Pratt, Paul D. Ph.D., Oregon State University, 1999. Invasive Plant Research Laboratory, 3225 College Avenue, Ft. Lauderdale, FL 33314. Control of invasive species. Email: paul.pratt@ars.usda.gov
- 3 Price, James F. Ph.D., Clemson University, 1977. UF/IFAS, Gulf Coast REC, 5007 60th Street E, Bradenton, FL 34203-9324. Pest management on ornamental plants. Email: jprice@ifas.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@ifas.ufl.edu
- 3 Rich, Jimmy R. Ph.D., University of California-Riverside, 1976. UF/IFAS, North Florida REC, 155 Research Road, Quincy, FL 32351-5677. Nematology. Email: jrich@ifas.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@crec.ifas.ufl.edu
- 3 Scharf, Michael E. Ph.D., Purdue University, 1997. UF/IFAS, Entomology and Nematology Dept., PO Box 110620, Gainesville, FL 32611-0620. Insect toxicology. Email: mescharf@ufl.edu
- 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 Schuster, David J. Ph.D., Oklahoma State University, 1973. UF/IFAS, Gulf Coast REC, 5007 60th Street E, Bradenton, FL 34203-9324. Pest management; host plant resistance to arthropods. Email: dschust@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@ifas.ufl.edu
- 2,3 Shapiro, Jeffrey P. Ph.D., Cornell University, 1981. USDA/ARS/CMAVE, PO Box 110970, Gainesville, FL 32611-0970. Insect behavior and nutrition. Email: jshapiro@gainesville.usda.ufl.edu
- 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: pshirk@gainesville.usda.ufl.edu
- 2,3 Shoemaker, David D. Ph.D., University of Georgia, 1995. USDA/ARS/CMAVE, PO Box 110970, Gainesville, FL 32611-0970. Imported fire ant and household insects. Email: dewayne.shoemaker@ars.usda.gov

- 2,3 Silhacek, Donald L. Ph.D., University of Wisconsin, 1966. USDA/ARS/CMAVE, PO Box 110970, Gainesville, FL 32611-0970. Insect biochemistry: energy metabolism and hormonal control. Email: dsilhacek@gainesville.usda.ufl.edu
- 2,3 Sivinski, John. Ph.D., University of Florida, 1982. USDA/ARS/CMAVE, PO Box 110970, Gainesville, FL 32611-0970. Insect behavior and ecology. Email: john.sivinski@ars.usda.gov
- 2,3 Skelley, Paul E. Ph.D., University of Florida, 1994. FDACS/DPI, PO Box 110980, Gainesville, FL 32611-0980. Insect taxonomy; Coleoptera. Email: skelleyp@doacs.state.fl.us
- 3 Smartt, Chelsea T. Ph.D., University of California-Irvine, 1995. UF/IFAS, Florida Medical Entomology Laboratory, 200 9th Street SE, Vero Beach, FL 32962-4657. Molecular biology and biochemistry of mosquitoes. Email: csmartt@mail.ifas.ufl.edu
- 2,3 Stange, Lionel A. Ph.D., University of California-Davis, 1965. FDACS/DPI, PO Box 110980, Gainesville, FL 32611-0980. Biosystematics of Neuroptera especially Myrmeleontidae, and of Hymenoptera especially Eumenidae and Megachilidae; taxonomy. Email: stangel@doacs.state.fl.us
- 3 Stansly, Philip A. Ph.D., Texas A&M University, 1985. UF/IFAS, Southwest Florida REC, PO Drawer 5127, Immokalee, FL 34143-5002. Integrated pest management. Email: pas@ifas.ufl.edu
- 2,3 Steck, Gary J. Ph.D., University of Texas, 1981. FDACS/DPI, PO Box 110980, Gainesville, FL 32611-0980. Insect systematics; biological control; IPM; evolutionary ecology. Email: steckg@doacs.state.fl.us
- 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 Tabachnick, Walter J. Ph.D., Rutgers University, 1974. UF/IFAS, Florida Medical Entomology Laboratory, 200 9th Street SE, Vero Beach, FL 32962. Medical entomology; Center Director. Email: wjt@ifas.ufl.edu
- 2,3 Teal, Peter E.A. Ph.D., University of Florida, 1981. USDA/ARS/CMAVE, PO Box 110970, Gainesville, FL 32611-0970. Chemical ecology; biosynthesis of insect pheromones. Email: peter.teal@ars.usda.gov
- 2,3 Thomas, Michael C. Ph.D., University of Florida, 1985. FDACS/DPI, PO Box 110980, Gainesville, FL 32611-0980. Insect taxonomy; Coleoptera. Email: mcthoma1@ufl.edu
- 2,3 Tumlinson, James H., III. Ph.D., Mississippi State University, 1969. USDA/ARS/CMAVE, PO Box 110970, Gainesville, FL 32611-0970. Chemistry of insect pheromones and other biologically active natural products. Email: jtumlinson@gainesville.usda.ufl.edu
- 2 Valles, Steven M. Ph.D., University of Florida, 1995. USDA/ARS/CMAVE, PO Box 11970, Gainesville, FL 32611-0970. Insecticide resistance. Email: steven.valles@ars.usda.gov

- 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 Waddill, Van H. Ph.D., Clemson University, 1974. UF/IFAS, Tropical REC, 18905 SW 280th Street, Homestead, FL 33031-3314. Pest management on vegetable crops; Center Director. Email: vhwaddill@ifas.ufl.edu
- 3 Webb, Susan E. Ph.D., Cornell University, 1988. UF/IFAS, Entomology and Nematology Dept., PO Box 110620, Gainesville, FL 32611-0620. Vectors of plant pathogens; pests of grapes; cucurbits. Email: sewe@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: wheelerg@ssa.ars.usda.gov
- 2,3,R Williams, David F. Ph.D., University of Florida, 1969. UF/IFAS, Entomology and Nematology Dept., PO Box 110620, Gainesville, FL 32611-0620. Medical entomology. Email: dfwilliams@ifas.ufl.edu
- 1,3 Wilmott, Keith R. Ph.D., University of Florida, 1999. UF/IFAS, McGuire Center for Lepidoptera Research, PO Box 117800, Gainesville, FL 32611-8525. Systematics and biology of Lepidoptera. Email: kwillmott@flmnh.ufl.edu
- 2,3 Yu, Simon S.J. Ph.D., McGill University, 1968. UF/IFAS, Entomology and Nematology Dept., PO Box 110620, Gainesville, FL 32611-0620. Insect toxicology. Email: sju@ifas.ufl.edu

APPENDIX B
ENTOMOLOGY, NEMATOLOGY, AGRICULTURAL LIFE SCIENCES,
AND PEST MANAGEMENT UNDERGRADUATE 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. <http://www.registrar.ufl.edu/soc/>

COURSE #	TITLE	METHOD	CREDIT	TERM	LECTURE	LAB	INSTRUCTOR
ALS 2931	Thermal Biology (Honors)	Lec	3	F	MW 8-9		Hahn (not for majors)
ALS 2931	Biology with Fireflies (Honors)	Lec	3	S	T R 8-9		Lloyd (not for majors)
ALS 3153	Agricultural Ecology	Lec	3	F	M W F 3		McSorley
ALS 3203	PC Use in Agriculture	WWW	3	F, S,	Web only		Choate
IPM 3022	Fundamentals of Pest Management	Lec	3	S	R 9-E1		Cave Polycom, only not DE
IPM 4254	Landscape Pest Mgmt	Lec	3	TBA	TBA		Giblin-Davis
PMA 4570C	Field Techniques in IPM	Lec	2	SS B	T R 2-3		Liburd
ENY 1001	Bugs and People	Lec	3	F, S, SS B	T R 2		Barfield (not for majors)
ENY 2040	The Insects	Lec	3	F, S	M W F 3		D. Hall (not for majors)
ENY 3005	Principles of Entomology	Lec WEB	2	F, S, F, S, SS C	T R 3		Staff Baldwin
ENY 3005L	Princ of Entomology Laboratory	Lab WEB	1	F, S, SS C F, S, SS C		TBA	Staff Baldwin
ENY 3007C	Life Science	Lec	3	F, S, SS A	T R		Baldwin (not for majors)
ENY 3163	Invertebrate Field Biol	Lec	3	SS B	M W 1-3		Branham
ENY 3222C	Biology and ID of Urban Pests	Lec WEB	3	SS A odd Fall	M W 4 TBA	R 4-5	Koehler
ENY 3225C	Principles of Urban Pest Management	Lec WEB	3	SS A even S	M F 4 TBA	W 4-5	Koehler
ENY 3228	Urban Vertebr Pest Mgt	WEB	3	S,	Ft. Laud		Kern
ENY 3563	Tropical Entomology	Lec	3	SS A (odd)	M W F 2		Frank
ENY 3564L	Tropical Entomology Field Laboratory	Lab	2	SS B (odd)	TBA		Frank
ENY 3565	Tropical Hort Entomology	Lec	3	TBA	TBA		Staff
ENY 4161	Insect Classification	Lec CD	3	F, S F, SS C	T 2	T R 3-4	Staff Choate
ENY 4221	Termite Biol and Contr	Lec/Lab	2	SS B	Ft. Laud	TBA	Kern/Scheffrahn

ENY 4228	Pesticide Application		VAR	F, S, SS	TBA	TBA	Koehler
ENY 4705	Forensic Entomology	Lec	2	S	M W 7		Kaufman
ENY4705L	Forensic Entomol Lab	Lab	1	S		F 6-8	Kaufman
ENY 4453	Behavioral Ecology and Systematic	Lec	3	S	W 5-6, F 5		Branham
ENY 4455	Social Insects	Lec	3	F	M 6-8	W F 6	G. Hall
ENY 4660	Medical and Veterinary Entomology	Lec WEB	2	F F, S	M W 2	F 2-4	Kaufman Koehler
ENY 4660L	Medical and Veterinary Entomology Laboratory	Lab WEB	1	F F, S			Kaufman Koehler
ENY 4905	Problems in Entomol		1-5	F, S, SS	TB		Staff
ENY 4909	Honors Project			F, S, SS	TBA		Staff
NEM3002C	Principles of Nematol	WEB	3	S (even)	TBA		Giblin-Davis

**APPENDIX C
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. <http://www.registrar.ufl.edu/soc/>

For descriptions of courses, see the University of Florida Graduate Catalog which is available as hard copy or online (<http://gradschool.rgp.ufl.edu/students/catalog.html>). Semester course schedules are on the web at <http://www.registrar.ufl.edu/soc/>.

COURSE #	TITLE	METHOD	CREDIT	TERM	LECTURE	LAB	PROFESSOR
ALS 5136	Agricultural Ecology	Lec	3	F	M W F 3	M 4	McSorley
ALS 6046	Grant Writing	Lec	2	S	M 6-7		Daniels
IPM 5205	Citrus Pest Mgt	Lec	3	S (odd)	Lake Alfred		Duncan
PMA 6228	Field Tech. in IPM	Lec	2	SS B	TR 2-3		Liburd
MCB 5505	General Virology	Lec	3	SS A even	MWRF	3	Maruniak
ENY 5006	Graduate Survey of Entomology	Lec	2	F, S, SS C	T R 3		Staff
		WEB	2	F, S, SS c			Baldwin
ENY 5006L	Graduate Survey of Entomology Laboratory	Lab	1	F, S, SS C		TBA	Staff
		WEB	1	F, S, SS C			Baldwin
ENY 5151C	Techniques in Insect Systematics	Lec	2	F (even)	T R 6-9		Branham
ENY 5160C	Survey of Science with Insects	Lec	3	F, S, SS A			Baldwin (not for majors)
ENY 5222C	Biology and ID of Urban Pests	Lec / WEB	3	SS A even F	M F 4	W 4-5	Koehler
ENY 5226C	Princ Urban Pest Mgt	Lec / WEB	3	SS A odd S	M F 4	W 4- 5	Koehler
ENY 5228	Survey Urban Vert Pest Management	Lec / CD	3	S	Ft. Laud		Kern
ENY 5236	Insect Pest and Vector Mgt	WEB	3	F,S,SS C	TBA		Capinera
ENY 5241	Biological Control	Lec	4	S (even)	T R 3	F 8-9	Frank
ENY 5245	Agricultural Acarology	Lec	2	SS B (odd)	TBA		Hoy
ENY 5164	Invertebr Field Biology	Lec	3	SS B	M W 1-3		Branham
ENY 5566	Tropical Entomology	Lec	2	SS A (odd)	M W F 2		Frank
ENY 5564	Tropical Entomology Field Lab	Lab	2	SS B (odd)	TBA		Frank
ENY 5611	Immature Insects	Lec	4	SS C	M W 4-6		Branham
ENY 5820	Insect Molec Genetics	Lec / WEB	2	TBA	TBA		Hoy

ENY 6166	Insect Classification	Lec CD	3	F S F, S, SS C	T 2	T R 3-4	Staff Choate
ENY 6203	Insect Ecology	Lec / CD	3	F	M W F 5		McAuslane/McSorley
ENY 6203L	Insect Ecology Lab	Lec / CD	1	F	W 6-7	TBA	
ENY6706	Adv. Forensic Entomol	Lec	2	S	M W 7		Kaufman
ENY 6706L	Adv. Forensic Entomology Laboratory	Lab	1	S		F 6-8	Kaufman
ENY 6248	Termite Biol and Contr	Lec / Lab	2	SS	Ft. Laud	TBA	Scheffrahn
ENY 6401C	Insect Physiology	Lec WEB	4 3	S F S SS	M W F 4		Hahn Nation
ENY 6454	Behavioral Ecology and Systematics	Lec	3	S	W 5-6 F 5		Branham
ENY 6651C	Insect Toxicology	Lec CD	3	S F S SS	M W 3 TBA	M 6- 8	Scharf Yu
ENY 6665	Adv Medical and Veterinary Entomology	Lec WEB	3	F F S	M W 2		Kaufman Koehler
ENY 6665L	Adv Med and Vet Ent Laboratory	Lec WEB	1	F F S	M W 2	F 2- 4	Kaufman Koehler
ENY 6821	Insect Pathology	Lec	3	F (ODD)	M W F 5	M 7- 9	Boucias
ENY 6822C	Molecular Biology Techniques	Lec	4	SS A (even)	M T W R F	2-5	Maruniak
ENY 6905	Problems in Entomology		1-4; max 12	F, S, SS	TBA		Staff
ENY 6910	Supervised Research		1-5; max 5	F, S, SS	TBA		Staff
ENY 6932	Special Topics in Entomology		1-2; max 4	TBA			Staff
ENY 6934	Selected Studies in Entomology		1-4; max 8	F, S, SS	TBA		Staff
ENY 6940	Supervised Teaching		1-5; max 5	F, S, SS	TBA		Staff
ENY 6942	Insect Diagnostics	Lec / Lab	2	F	R 5-7		Buss
ENY 6943	Entomology Internship		1-3; max 6	F, S, SS	TBA		Staff (not for majors)
ENY 6944	Entomology Extension Internship		1-3; max 6	F, S, SS	TBA		Staff (not for majors)
ENY 6971	Masters Research		15-Jan	F, S, SS	TBA		Staff
ENY 7979	Advanced Research		12-Jan	F, S, SS	TBA		Staff
ENY 7980	Doctoral Research		15-Jan	F, S, SS	TBA		Staff
NEM 5002C	Grad Survey Nematol	Lec	3	S (even)			Giblin-Davis
NEM 5707C	Plant Nematology	Lec	3	F	M W 2	W 6-8	Dickson
NEM 6101C	Nematode Morphology and Anatomy	Lec	2	F (even)	R 6	R 7-8	Staff
NEM 6102C	Nematode Taxonomy and Systematics	Lec	3	S (odd)	F 6	F 7-9	Staff
NEM 6103	Insect Parasitic Nemat	Lec	1	F	TBA		Staff

NEM 6104L	Insect Parasitic Nematodes Laboratory	Lab	1	F	TBA		Staff
NEM 6201	Nematode Ecology	Lec	3	F (odd)	M W F 7		McSorley
NEM 6708	Field Plant Nematology	Lec	2; max 4	S	TBA		Crow
NEM 6905	Problems in Nematology		1-4; max 8	F, S, SS	TBA		Staff
NEM 6905	Nematode ID	Lab	3-Jan	F, S, SS	TBA		Staff
NEM 6910	Supervised Research		5-Jan	F, S, SS	TBA		Staff
NEM 6931	Nematology Seminar		1; max 6	S	M 8-9		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	TBA		Staff
NEM 6940	Supervised Teaching		1-5; max 5	F, S, SS	TBA		Staff
NEM 6942	Nematode Diagnostics	Lec / Lab	2	F, S	F 5	F 2-4 / 6-8	Crow
NEM 6943	Nematode Internship		1-3; max 6	F, S, SS	TBA		Staff (not for majors)
NEM 6944	Nematode Extension Internship		1-3; max 6	F, S, SS	TBA		Staff (not for majors)
NEM 6971	Masters Research		15-Jan	F, S, SS	TBA		Staff
NEM 7979	Advanced Research		12-Jan	F, S, SS	TBA		Staff
NEM 7980	Doctoral Research		5-Jan	F, S, SS	TBA		Staff

APPENDIX D

STATISTICS COURSES FOR ENTOMOLOGY-NEMATOLOGY GRADUATE STUDENTS

Introductory. The two courses most commonly taken by IFAS students are STA-6166-67:

STA-6166 (Statistical Methods in Research I) is the standard entry-level graduate statistics course that is taught at most universities. It covers the basic topics of tests and confidence intervals about means, comparing means of two populations, one-way analysis of variance, contingency tables, a little applied probability, and introduction to regression. It usually has about 60 students, and is required of many majors in IFAS. No Stat majors take this class. The course has a stated pre-requisite of one course in statistics, but in fact many students have had no statistics previously.

STA-6167 (Statistical Methods in Research II) is the follow-up to STA-6166. It starts with regression analysis, and then moves to design of experiments. Design topics include randomized blocks, nested classifications, factorial experiments, and split plots. When time permits, some logistic regression is covered. Most students in this course are from IFAS.

Intermediate. After STA-6166-67 there are several courses that were originally designed for undergraduate statistics majors but have been given a 5000 number for non-statistics graduate students. These courses have a pre-requisite of one or more other courses and are good for students following STA-6166 or 6167, but require deeper interest in statistics. These are not theory courses.

STA-5223 (Applied Sample Survey Methods) is an introductory sampling course, but should not be taken without something like STA-6166 as a pre-requisite. It is taught in fall by Mary Christman. She has an ecology background and will teach the course relevant to that perspective rather than the traditional human-subjects sampling perspective.

STA-5503 (Categorical Data Analysis) is an introductory course in categorical methods. It also should not be taken without the pre-requisite. It covers contingency tables, logistic regression and other regression models for categorical data. This course would be good for students who are modeling count data.

STA-5507 (Applied Nonparametric Methods) is an introduction to nonparametric but should not be taken without the pre-requisite (normally STA-6167). It covers the usual topics; Wilcoxon statistics, Kruskal-Wallis, etc.

STA-5701 (Applied Multivariate Methods) is an introduction to multivariate methods, and has pre-requisites of at least one other statistics course. This course has been popular among non-statistics majors in the last few years when Ken Portier taught it. Hopefully, someone in IFAS Statistics will pick it up and teach it relevant to ecology-natural resources students. It would probably be offered in the Spring semesters.

Theoretical. For students who are serious about modeling populations, I recommend a probability or mathematical statistics course. There are two very good courses, but have a calculus pre-requisite.

STA-5325 (Fundamentals of Probability) covers probability distributions and their properties.

STA-5328 (Fundamentals of Statistical Theory) covers basic mathematical statistics, and provides the theoretical underpinnings for basic methods.

Other. There are a few courses that are designed as applied courses for statistics graduate majors, but are successfully taken by non-statistics majors who have strong quantitative backgrounds. They have mathematical statistics pre-requisites.

STA-6176 (Introduction to Biostatistics) covers methods for epidemiology, such as survival analysis and risk factors. It is taught from a human-subjects perspective, but the methods are relevant to other fields. Most of the students would be from statistics or public health.

STA-6207-08 (Regression Analysis and Design of Experiments) cover many of the same topics as STA-6166-67, but at a level appropriate for graduate students in statistics. About half of the classes are non-statistics majors.

APPENDIX E
COURSES RELATED TO ECOLOGY, BEHAVIOR, SYSTEMATICS/EVOLUTION
(GRADUATE CATALOG -- <http://gradschool.ufl.edu/students/catalog.html>)

AGRONOMY

AGR 5511: Crop Ecology (3) *Prereq: AGR 4210, BOT 3503, PCB 3043C, or equivalent.* Relationships of ecological factors and climatic classifications to agroecosystems, and crop modeling of the major crops. Offered spring term.

AGR 6311: Population Genetics (2) *Prereq: AGR 3303, STA 6166.* Application of statistical principles to biological

populations in relation to gene frequency, zygotic frequency, mating systems, and the effects of selection, mutation and migration on equilibrium populations. Offered spring semester in even-numbered years.

AGR 6353: Cytogenetics (3) *Prereq: AGR 3303.* Genetic variability with emphasis on interrelationships of cytologic and genetic concepts. Chromosome structure and number, chromosomal aberrations, apomixis, and application of cytogenetic principles. Offered fall semester in odd-numbered years.

BOTANY

BOT 5625: Plant Geography (2) *Prereq: BOT 3151C or 5725C.* Geography of the floras and types of vegetation throughout the world, with emphasis on problems in the distribution of taxa, and the main factors influencing types of vegetation. Offered fall semester in even-numbered years.

BOT 5646C: Ecology and Physiology of Aquatic Plants (3) Ecological and physiological principles in freshwater habitats and plant communities with laboratory and field studies.

BOT 5655C: Physiological Plant Ecology (3) *Prereq: basic plant physiology or consent of instructor.* Traits affecting success in different environments. Energy balance, carbon balance, water relations, and nutrient relations emphasized. Introduction to ecophysiological methods and instrumentation. Offered fall semester in even-numbered years.

BOT 5685C: Tropical Botany (5) *Prereq: elementary biology/botany; consent of instructor.* Study of tropical plants utilizing the diverse habitats of South Florida with emphasis on uses, anatomy and morphology, physiology and ecology, and systematics of these plants. Field trips and the Fairchild Tropical Garden supplement laboratory experiences. Offered summer semester.

BOT 5695: Ecosystems of Florida (3) *Prereq: basic ecology and consent of instructor.* Major ecosystems of Florida in relation to environmental factors and human effects. Emphasis on field trips (Saturdays and some overnights). Offered spring semester in odd-numbered years.

BOT 5725C: Taxonomy of Vascular Plants (4) *Prereq: BOT 2011C and 3303C or equivalent.* Introduction to systematic principles and techniques used in classification; field and herbarium methods. Survey of vascular plants, their classification, morphology, and evolutionary relationships. Offered spring semester in odd-numbered years.

BOT 6716C: Advanced Taxonomy (2) *Prereq: BOT 5725C or equivalent.* Survey of vascular plant families of limited distribution and/or of phylogenetic significance not covered in BOT 5725C with discussions of their classification, morphology, and evolutionary relationships. Published studies reviewed to demonstrate principles and methods involved in classification. Offered on demand.

PCB 5338: Principles of Ecosystem Ecology (3) *Prereq: BSC 2010 or BSC 2011, and PCB 3034C or PCB 4044C.* The study of flows of energy and materials between organisms and their environment. This course will cover the principles that govern the structure and function of terrestrial ecosystems.

PCB 6356C: Ecosystems of the Tropics (3) *Prereq: PCB 3034C.* Natural and man-dominated tropical ecosystems, their structure, function, and relation to man. Offered spring semester.

PCB 6605C: Principles of Systematic Biology (4) Theory of biological classification and taxonomic practice. Laboratory experience in taxonomic procedures and techniques, including computer methods. Offered on demand.

FISHERIES & AQUATIC SCIENCES

FAS 5276C: Field Ecology of Aquatic Organisms (4) *Prereq: FAS 4305C or consent of instructor.*

Understanding principles of fish and shellfish ecology through field studies. Intensive study in lakes, rivers, and coastal marshes to gain understanding of how fish and shellfish interact with their environment. Extensive field trips required. Offered summer semester.

FAS 6154: Aquatic Invertebrate Ecological Physiology (3) *Prereq: undergraduate course in animal physiology.* Biochemical, physiological, behavioral, and ecological adaptations that allow animals to survive in particular environments.

FOREST RESOURCES & CONSERVATION

PCB 6555: Introduction to Quantitative Genetics (3) *Prereq: STA 6166.* Intended for students of all disciplines who are interested in genetic principles and biometric evaluation of characters that exhibit continuous variation in natural populations or breeding programs.

SUR 5385: Remote Sensing Applications (3) *Prereq: consent of instructor.* Review of remote sensing systems, image classification methods, mapping applications, integration of remotely sensed data into GIS systems, application of data for variety of land information systems.

GEOGRAPHY

GEO 5159: Geographic Information Systems Applications in Environmental Systems (3) *Prereq: GEO 3171 or equivalent, permission of instructor.* Advanced study of application of GIS to research problems in geosciences, landscape ecology, and land management. Concepts, methods, data, and models for studying physical and ecological spatial patterns and processes. Not software specific.

PSYCHOLOGY

PSB 6082: Neuroethology (3) *Prereq: PSB 3004, 3054, or PSB 6087 and consent of instructor.* Focuses on cellular mechanisms underlying fundamental aspects of behavior, including the production and coordination of movement, sensory processing and sensorimotor integration. Electrophysiological studies of **invertebrate** and simple vertebrate behaviors. (Emphasis added D.W. Hall)

WILDLIFE ECOLOGY & CONSERVATION

WIS 5521: Plant-Animal Interactions (3) *Prereq: PCB 4674 and one of the following courses: PCB 4044C or WIS 3401 or PCB 3601C.* Major types of plant-animal interactions and the conceptual and empirical approaches used to study them. Offered alternate years, starting Fall Semester 2006.

WIS 5555C: Conservation Biology (3) *Prereq: basic courses in ecology, genetics.* Application of biological and resource management theory to the problem of the conservation of natural communities. Offered fall semester.

WIS 6444: Advanced Wetlands Ecology (4) *Prereq: WIS 4443, SOS 4242, EES 6308C, or consent of instructor.* Examination of geology, hydrology, chemistry, flora, fauna, and ecology of major wetland systems in North America.

WIS 6455: Wildlife Population Ecology (3) Rigorous background in population analysis covering population growth and regulation, species interactions, life-history theory, and population viability analysis.

WIS 6466: Wildlife Population Modeling (3) *Prereq: one course in calculus or linear algebra; one course in basic or popular ecology.* Theory and applications of life tables, age, and stage-structured matrix population models. Sensitivity analysis and analysis of life table response experiments. Unstructured population models.

ZOOLOGY

PCB 5415C: Behavioral Ecology (4) *Prereq: ZOO 3513C, 4472C, PCB 4044C, 4674, or consent of instructor.* Theoretical and empirical bases for behavioral adaptations.

PCB 5459: Morphometrics (3) *Prereq: PCB 4044C, 4674, STA*

3024, or equivalents. Quantitative methods of morphological analysis, with applications in ecological, evolutionary, and physiological biology. Multivariate techniques emphasized.

PCB 5615: Molecular Evolution and Systematics (4) *Prereq: PCB 3063, graduate standing, or consent of instructor.* Patterns and processes of change at molecular level in populations, species, and higher taxonomic groups and their systematic implications.

PCB 6049: Seminar in Ecology (1-3; max: 9) Rotating seminar: various topics in ecology.

PCB 6447C: Community Ecology (4) *Prereq: PCB 4044C or equivalent and permission of the instructor.* The evolutionary ecology of communities; conceptual and quantitative approaches to community structure; statistics independent projects.

PCB 6496C: Stream Ecology (4) *Prereq: ENY 3005C, PCB 4044C or 3043C, CHM 2046, PHY 2054.* Physical, chemical, and biological interrelationships in flowing fresh water.

PCB 6605C: Principles of Systematic Biology (4) Theory of biological classification and taxonomic practice. Laboratory experience in taxonomic procedures and techniques, including computer methods. Offered on demand.

PCB 6815: Hormone Regulation of Invertebrate Behavior (3) Survey and analysis of invertebrate behaviors regulated by hormones. Invertebrates considered include arthropods, coelenterates, helminthes, and mollusks.

ZOO 5939: Seminar in Morphology (2; max: 9) *Prereq: consent of instructor.* Advanced topics in the description, analysis and evolution of animal form.

ZOO 6308: Dynamic Optimization Modeling in Behavioral and Evolution Ecology (3) Powerful and simple techniques for formalizing hypotheses. Appropriate to address questions of relative fitness of alternative choices or strategies. Instruction in computer programming and dynamic modeling.

ZOO 6515C: Ethology (4) *Prereq: graduate standing or consent of instructor.* The evolution, mechanisms, and classification of animal behavior, emphasizing how to design and conduct behavioral research.

ZOO 6542: Nutritional Ecology (3) Interactions of nutrition and ecology, emphasizing how digestive processes regulate animal productivity and plant/animal interactions.

ZOO 6939: Seminar in Animal Behavior (1-3; max: 9) *Prereq: graduate standing or consent of instructor.* Advanced topics in animal behavior.

In addition to these formal courses, there are a variety of courses that are taught on an irregular or one-time basis as special problems courses. To find course offerings each semester, click on the "Course Listings" link under the appropriate semester at the following web site: <http://www.registrar.ufl.edu/soc/>

APPENDIX F
TENTATIVE TOPICS FOR GRADUATE STUDENT SEMINAR TOPICS
FOR CALENDAR YEARS 2009-2011

Fall 2009

Ellis - Current Topics in Apiculture
Hahn - Presentation Skills
Webb - Insect Vectors of Plant Pathogens
Richards - Course in Vector Biology (FMEL)

Spring 2010

McSorley - Nematology
Kaufman and Oi - Topics in Medical, Veterinary and Urban Entomology
Willmott and Sourakov - Biology of Lepidoptera

Summer 2010

None scheduled

Fall 2010

Boucias - Current Topics in Insect Pathology and Biological Control
Daniels - Ecotourism, Sustainable Development, and Insects

Spring 2011

McAuslane - Insect Chemical Ecology
Buss and Mayfield - Traditional and Urban Forest Entomology
Liburd - IPM in Fruit and Vegetable Crops

Summer 2011

None scheduled

Fall 2011

Ellis - Current Topics in Apiculture
Webb - Insect Vectors of Plant Pathogens

APPENDIX G
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 _____

Evaluator's Name _____ Signature _____

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 I
PROGRAM OF STUDY**

TO: ENTOMOLOGY AND NEMATOLOGY GRADUATE COMMITTEE

PROGRAM OF STUDY

NAME: _____

UFID: _____

DEGREE: _____

MAJOR COURSEWORK (ENY-NEM ONLY):

Course #	Course Title	Hours	Grade	Term (To Be) Completed	Institution

FOUNDATION AND SUPPORTING (ALS-PLP-HOS-ETC.)

Course #	Course Title	Hours	Grade	Term (To Be) Completed	Institution

We recommend the above program be approved:

Graduate Student

Student's Supervisory Committee Signatures and Date:

Committee Chair

Committee Member

Committee Member

Committee Member

APPENDIX J

EXAM SCHEDULING REQUEST

To be submitted to Debbie Hall at least 10 working days prior to the exam.

Late request may result in rescheduling of this exam.

- M.S. Exit Seminar/Final Exam (Thesis Defense)
- Ph.D. Qualifying Exam
- Ph.D. Exit Seminar/Final Exam(Dissertation Defense)

Name:

UFID:

Date:

Time:

COMMITTEE CERTIFICATION

This request, and our signatures, below certify that the student's entire supervisory committee has received a complete draft of the thesis/dissertation and has confirmed their attendance at the date and time requested.

Committee chair _____

Student _____

Name and email address of all committee members (no signature required).

Committee Chair:

Co-Chair:

External Member (PhD, only):

Member:

Member:

Member:

Member:

A copy of the thesis/dissertation title page **MUST** be included with this form. Email both documents as an attachment to dahall@ufl.edu .