

ADMISSIONS REQUIREMENTS

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

Applicants must provide the Office of Admissions with official transcripts of all previous college and/or university studies and official copies of GRE and TOEFL (if applicable) scores. If the transcripts are not in English, certified copies of English translations must be included.

The student shall provide: 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 (photocopies are satisfactory); e) a copy of the application form, unless you apply online; and f) a copy of your GRE general test scores and GRE Biology subject test scores.

The student must have a major professor prior to being admitted for graduate studies.

For domestic students, our department requires a minimum score of 1,000 (combined verbal and quantitative) on the GRE general test, a minimum score of 550 on the GRE Biology subject test, and a minimum GPA of 3.0 (4.0 system) on the last 60 credits or two years of undergraduate work. If it is not possible to take the GRE Biology subject test prior to admission, it must be taken the first time that the test is offered after enrollment. If a 550 is not made on the first attempt, the test may be retaken. A minimum score of 550 must be made before the student may take the M.S. final examination or the Ph.D. qualifying examination.

For international students, the same GRE requirements apply, and for those whose language of academic instruction is not English, we require a minimum score of 550 on the paper-based TOEFL or 213 on the computer-based TOEFL. Additionally, international students must certify financial responsibility as stipulated in the graduate catalog.

2.10. DEGREE REQUIREMENTS

Completion of Degree Requirements

All students are expected to complete degree requirements and graduate within a reasonable time. A Ph.D. degree usually can be earned in three years (9 semesters) after the Masters degree. However, since research results are not predictable, it may take longer. Table I lists the number of semesters that a student may hold a Gahan or department-funded assistantship.

General Requirements for All Entomology and Nematology Students

Competency in Basic Biology

Since Entomology and Nematology are biological sciences, this department requires that all

graduate students demonstrate competency in basic biology. Competency is demonstrated by receiving a satisfactory score on the Biology subject test of the GRE (Graduate Record Examination). This test should be taken before being accepted into the department, but if that is not possible, it must be taken during the first semester of enrollment. If the score on the Biology subject test is not acceptable to the students's Supervisory Committee, the Committee shall require remedial study. One type of remedial study might be to require that the student self-study and retake the Biology subject test and make an acceptable score. Another type of remedial study might be to have the student take the lecture portions only of BSC 2010 and BSC 2011, Integrated Principles of Biology, and make passing grades. Those courses do not count toward graduate credit. The Supervisory Committee chair shall notify the Graduate Coordinator of any remedial study required.

Competency in Entomology

Students majoring in entomology must demonstrate competency in the subject by taking core courses. Ph.D. Students shall take, or shall have taken, the following graduate courses or their equivalents to demonstrate competency:

Insect Classification
either Insect Ecology or Nematode Ecology
and at least two other graduate courses in entomology

Competency in Nematology

Students majoring in nematology must demonstrate competency in nematology by taking core courses. If nematology students seeking the Ph.D. degrees have not had a beginning course in nematology, they must take either NEM 3002 Principles of Nematology or NEM 5707 Plant Nematology as a foundation course. In addition, they shall take, or shall have taken, the following graduate courses or their equivalents to demonstrate competency:

Ph.D. Students

- i. Nematode Morphology and Anatomy
- ii. Nematode Taxonomy and Systematics Nematode Ecology
- iii. Nematode Identification Nematology Seminar

Registration

Students already enrolled at the University of Florida may pre-register for the next semester, register during regular registration, or register late during drop/add week. Currently, the charge for late registration is \$1 00.00, and the charge for late payment of fees is \$ 1 00.00. Students may register through TeleGator, through ISIS, or through the Departmental Student Services Office, Room 1028. The department recommends pre-registration.

Students who do not register properly in each semester in which they hold graduate assistantships will not be permitted to remain on assistantships.

Exit Interviews

All students must complete an exit interview with the Department Chairman and complete a questionnaire plus an exit interview with the Assistant Dean for Graduate Academic Programs, College of Agriculture, IFAS. Students will not be certified for graduation until the questionnaire and interview with the Assistant Dean are completed.

Admission to the Ph.D. Program After Completing an M.S. Program

A student who earns the M.S. degree in our department is not automatically approved to continue for the Ph.D. degree. The student must write a letter requesting continuation and containing a brief "Statement of Purpose." There must also be a letter from the former and future Supervisory Committee Chairperson (may be the same person), evaluating the academic ability of the student and potential to successfully complete the Ph.D. program. These, along with the original documents of application for the M.S. degree, are circulated to the Graduate Committee for a vote. The applicant is notified by the Graduate Coordinator whether the Graduate Committee voted for continuation.

Supervisory Committee

A student who obtains a M.S. degree in the Entomology and Nematology Department and remains for the Ph.D. degree must have a Supervisory Committee appointed and a Form 2 completed for the Ph.D. program during the first semester of the Ph.D. program. For students who obtain the M.S. degree elsewhere, the Supervisory Committee should be appointed as soon as possible after the student enrolls in the department, but no later than the second semester of study. Failure to do so will result in a hold on the student's record preventing further registration.

The Graduate School requires that all Ph.D. Supervisory Committees be comprised of a minimum of four faculty members. Since five faculty members must be present at the Qualifying and Final Examinations, this department requires that the committee be comprised of five members. At least two of those members must be from the IFAS Entomology and Nematology Department and one must be from a department other than Entomology and Nematology. All members of the Supervisory Committee must have been appointed to the Graduate Faculty. If the student declares a minor (not required), at least one committee member must be from the minor department.

The Chairperson of the Supervisory Committee, in consultation with the committee members, completes a Letter of Evaluation of the student each semester, approves the dissertation topic and the plans for carrying it out, and meets at about the mid-point of the research to review procedures, progress, expected results, and makes suggestions for completion of the program.

Form 2, Program of Study

After the Supervisory Committee is appointed, the Committee, along with the student, completes the student's Program of Study (Form 2). If the Form 2 is not completed before the end of the second semester of study, the Assistant Dean for Graduate Academic Programs, College of Agriculture, IFAS, will place a hold on the student's record preventing further registration.

Course Requirements

An undergraduate course in biochemistry and a graduate course in statistics are required as foundation work. BCH 3023 in the Botany Department, BCH 3025 in the Food Science and Human Nutrition Department, or BCH 4024 in Medicine-Biochemistry, BCH 5045 in Agriculture, and STA 6166, or STA 6200, or STA 6201 in the Statistics Department, and AGR 5266 in the Agronomy Department meet these requirements. Those wishing more statistical training often take the two-course sequence, STA 6166 and STA 6167. The Supervisory Committee may require other courses in statistics and/or biochemistry. Beginning with the fall semester 1998, courses numbered 3000 and 4000 will no longer count for graduate credit. **See Competency in Entomology and Nematology Sections for required core courses.**

A minimum of 90 semester credits beyond the B.S. degree is required to obtain the Ph.D. degree. A maximum of 30 credits may be transferred into the Ph.D. program from an M.S. degree from other colleges or universities approved by the Graduate School, and all credits earned in an M.S. program at the University of Florida are carried on to the Ph.D. program. The Supervisory Committee and the student will determine other course requirements. A minimum GPA of 3.0 is required in the major.

If a minor is taken, at least 12 credits in the minor subject numbered 5000 and above are required. If two minors are taken, at least 8 credits in each are required. A minimum GPA of 3.0 is required in the minor(s).

In the term of graduation, all students must register for a minimum of three credits of 7980 Research for Doctoral Dissertation. Students on assistantship also must register for the total number of credit required by the assistantship.

Period of Residency

Beyond the first 30 credits counted toward the doctoral degree, students must complete 30 hours in residence at the University of Florida campus or at an approved branch station of the University of Florida Agricultural Experiment Stations or the Graduate Engineering and Research Center.

Ph.D. Qualifying Examination

The Ph.D. qualifying examination is comprehensive in scope with questions on details as well as principles and generalities. A good rule of thumb is to 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 several months of intensive review for most students. The student **MUST** know his/her specific research area and organism(s) very well!

The Qualifying Examination may be taken during the third semester of graduate study beyond the bachelor's degree. The department recommends that it be taken during the third semester after enrollment for the Ph.D. program. By that time, the student should have taken most of the required courses and be ready to devote most of his/her time to the dissertation research. The student is not Admitted to Candidacy for the Ph.D. degree until the Qualifying Examination has been passed. The examination is both written and oral. Our department requires written examinations from a minimum of four members of the Supervisory Committee, but all members may participate at the discretion of the individual member and the Chairperson of the Supervisory Committee. Many Supervisory Committees administer the written examinations to- the students, one per day on consecutive days before the oral examination. The committee member should grade the examination and return a copy of the graded examination to the student so that he/she will have time to review weak areas before the oral examination. All members of the Supervisory Committee and the Graduate Coordinator must be together with the student for the oral portion of the Qualifying Examination. Any other faculty members I-nay attend the Qualifying Examination. Competence in the minor area 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 two full semesters must elapse for full-time students, and one calendar year for part-time students. The semester in which the Qualifying Examination is taken counts as one semester if the examination is taken before the mid-point of the semester.

If a student fails the Qualifying Examination, the Supervisory Committee is not obligated to allow a re-examination. The student may request a re-examination, however, and if the request is granted by the Supervisory Committee, the re-examination may not be taken sooner than one semester after the first examination.

Admission to Candidacy

Application for Admission to Candidacy for the Ph.D. degree should be made as soon as the Qualifying Examination has been passed and a dissertation topic has been approved by the Supervisory Committee. Admission to Candidacy requires the approval of the Supervisory Committee, the Graduate Coordinator, the Dean for Graduate Academic Programs, College of Agriculture, IFAS, and the Dean of the Graduate School. A student may register for 7980, Research for Dissertation, only after being admitted to candidacy.

Dissertation

A thesis and dissertation style manual is available from the Graduate School. The Supervisory Committee must assure that the dissertation research is original and a contribution to knowledge. The dissertation must be approved unanimously, and signed by all members of the Supervisory Committee, the Dean for Graduate Academic Programs, College of Agriculture, IFAS, and tile Dean of the Graduate School. **One copy of the dissertation, printed on 20#, 100% rag bond, must be given to the Graduate School for microfilming. A second copy, also printed on 20#, 100% rag**

bond, must be given to the Assistant Dean for Graduate Academic Programs, College of Agriculture, IFAS, who will send it to the library for hard binding. A third copy must be given to the Graduate Coordinator of this department for binding and cataloging in the departmental Reading Room. Also, the Supervisory Committee chairperson will want a copy, as may other members of the committee.

Publication of Dissertation

All candidates for the Ph.D. degree must pay \$50 to University Financial Services for microfilming the dissertation, and sign an agreement authorizing publication by microfilm. If the candidate chooses to copyright the dissertation, an additional \$35, by certified check, cashiers' check, or money order, payable to University Microfilms, must be attached to the signed microfilm agreement form. To insure receipt of the Copyright Registration Certificate, a permanent address at which the student may be reached must be given.

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 written, or oral, or both, 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 oral portion of the Final Examination. Any other faculty members may attend the Final Examination.

The student must make a public presentation of the dissertation results prior to the Final Examination. Usually this is done immediately preceding the examination and should be scheduled in the Office of the Graduate Coordinator.

Exit Interviews

All students must complete an exit interview with the Department Chairman and complete a questionnaire plus an exit interview with the Assistant Dean for Graduate Academic Programs, College of Agriculture, IFAS. Students will not be certified for graduation until the questionnaire and interview with the Assistant Dean are completed.

Time Limitations

All work for the doctorate must be completed within five calendar years after the Qualifying Examination, or the 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 forms (available in the Graduate

School Editorial Office) should be filled out by the candidate, signed by the Assistant Dean for Graduate Academic Programs, IFAS, and returned to the Graduate School for verification and processing.

Evaluation

All Ph.D. graduate students are required to have an evaluation of progress each semester. The evaluation must be made by the student's Supervisory Chairperson and/or entire Supervisory Committee. Students are responsible for seeing that the evaluation is completed. Evaluation forms are sent to the Chair of the Supervisory Committee along with the Letter of Appointment.

Letter of Appointment

The Letter of Appointment applies only to students on assistantship. The letter must be signed by the student and supervisor prior to the beginning of each semester and returned to the business.

2. 11. CURRICULUM

The academic program and functional aspects for the cooperative Ph.D. in entomology is governed by a Memorandum of Agreement between Florida A & M University and the University of Florida.

The requirements for a cooperative Ph.D. in entomology are the same for a Ph.D. in entomology at the University of Florida. The following requirements for a cooperative Ph.D. in entomology are as follow. All Ph.D. Supervisory Committees with approval of the Program and Graduate Studies Coordinators must consist of a minimum of five faculty appropriate to the needs of each student two of whom must be from the Department of Entomology and Nematology, two from Entomology and Structural Pests, and one from an outside department. If the student declares a minor, at least one committee member must be from that department. In cases where a student divides their time between both Universities, co-faculty advisors are recommended.

A minimum of 90 semester credits beyond the B.S. degree is required to obtain the cooperative Ph.D. degree. A maximum of 30 graduate credits may be transferred into a cooperative Ph.D. program from other universities. Students who received their Masters degree at the University of Florida may count all of their Masters program credits toward the Ph.D. degree, except that a maximum of six credit of Masters Research, ENY 6971, may be counted. If a minor is taken, at least 12 credits in the minor subject are required, all of which must be courses 5000 and above. If two minors are taken at least eight credits in each are required.

It is policy that all cooperative Ph.D. students will take statistics through at least a beginning graduate course (STA 6166 or equivalent) and at least a beginning biochemistry course at the undergraduate level. Doctoral students will be held responsible for a broad range of basic knowledge in their discipline. The qualifying examination includes questions on morphology, physiology, taxonomy, ecology and applied entomology or nematology.

Doctoral students must take the basic biology and entomology sections of the written MS. qualifying exam (if they have not had it at the University of Florida as a MS. student), or they have the option of courses in entomology and the advanced biology exam of the GRE.

Students must register for three credits of ENY 7980, Research for Doctoral Dissertation, the term of graduation.

The minimum residence requirements are either (a) 30 semester credits in one calendar year, or (b) 36 semester credits in four semesters within two calendar years, or (c) 32 semester credits in four semesters within two consecutive calendar years if a half-time Graduate Assistant. A two year period is made up of six semesters and we will count any four in any order to allow graduate students on .25,.33 and .50 FTE assistantships to meet their period of concentrated study with a minimum of 32 semester credits in four semesters within two consecutive calendar years. A two year period is made up of six semesters and any four in any order may be counted. Residence requirements must be met while enrolled on the Gainesville campus of the University of Florida or Florida A & M University.

The Ph.D. Qualifying Examination is a major event on the route to the cooperative Ph.D. and it must be taken with utmost seriousness by the student. It is comprehensive, and students are questioned on details as well as principles and generalities. A good rule of thumb is to prepare by restudying all courses in one's major and closely allied subjects as if the student were preparing to take a comprehensive final examination in each subject This requires several months of intensive review for most students.

The Qualifying Examination may be taken during or after the 2nd term of the 2nd year of enrollment beyond the Bachelor's degree. The student should have had instruction in all core areas of his discipline and be ready to devote most of his/her time to research. The examination is both written and oral. The department requires a minimum of four written examinations. A minimum of five examiners must participate in the oral portion. It is policy that two outside examiners participate. "Outside" is defined as faculty not on the Supervisory Committee. Composition and competency of the Qualifying Examination must be approved by both the Program and Graduate Studies Coordinator.

There must be at least two full semesters for full-time students or one calendar year for part-time students between the qualifying and graduation. The term in which the qualifying is taken counts as one of these if the term is not more than half over at the time of the examination

If a student fails the Qualifying Examination, the Supervisory Committee is not obligated to carry the matter any further. The student may request a reexamination; if the request is granted by the Supervisory Committee, the reexamination may not be taken sooner than one semester after the first examination.

The cooperative Ph.D. is a research degree, and a dissertation is required. It must be approved and signed by a members of the Supervisory Committee and appropriate deans.

The Final Examination must be taken within six months before receiving the cooperative Ph.D. degree. The final is oral, or written, or both, at the discretion of the Supervisory Committee. At least five examiners must participate. Typically, the final is a defense of the dissertation, but the Supervisory Committee may also use the final as an opportunity to reexamine the student on an area in which he/she was weak in the Qualifying Examination. Students must make a public presentation of their dissertation results prior to the final exam. Usually this is done immediately preceding the exam.

Upon successfully completing all requirements of the cooperative Ph.D. in entomology, students will receive a diploma which indicates that it is awarded cooperatively by Florida A & M University and the University of Florida. The signatures of both Presidents and appropriate Deans will appear on the diploma.