

## **Certificates in Urban Pest Management, Landscape Pest Management, and Medical Entomology**

Graduate certificates may be taken by non-degree seeking students, who already have a bachelor's degree, and are designed for employees of industries or agencies where pest management is important. The program is offered mostly on-line. You can complete all the courses and earn a certificate without coming to Gainesville. Students in the non-degree seeking certificate program are not required to take the Graduate Record Exam (GRE). Progression through the program will depend on a student's other time commitments and ranges from 12-18 months.

Degree-seeking graduate students may also complete the coursework necessary for a certificate to add to the credentials documented on their University of Florida transcript.

### Program Contacts

Ms. Ruth Brumbaugh (first contact, registration each semester, general questions, scheduling final exam)

(352) 273-3912 | [brumbaugh@ufl.edu](mailto:brumbaugh@ufl.edu)

Dr. Heather McAuslane (if you are interested in later pursuing an online M.S. degree)

Graduate Coordinator

(352) 273-3913 | [gradc@ifas.ufl.edu](mailto:gradc@ifas.ufl.edu)

Dr. Philip Koehler (certificate-specific questions)

Certificate Coordinator, Urban Pest Management (code UPG)

(352) 392-2484 | [pgk@ufl.edu](mailto:pgk@ufl.edu)

Dr. Adam Dale (certificate-specific questions)

Certificate Coordinator, Landscape Pest Management (code LPG)

(352) 273-3976 | [agdale@ufl.edu](mailto:agdale@ufl.edu)

Dr. Derrick Mathias (certificate-specific questions)

Certificate Coordinator, Medical Entomology (code MEY)

(772) 778-7200 ext. 173 | [d.mathias@ufl.edu](mailto:d.mathias@ufl.edu)

### Application

**Do not take more than two 3-credit graduate entomology courses from our department before deciding to apply to the certificate program. The Graduate School will allow only two courses taken as a non-enrolled student to be counted towards a certificate program.**

Students should apply for admission to a certificate program at <http://www.admissions.ufl.edu>. Choose More Options and then Certificates. If you plan to take the certificate as a non-degree seeking student, choose "For new students, apply here." If you wish to add a certificate to your current graduate program, choose "For currently enrolled UF students, apply here." Arrange for an official copy of your bachelor's transcript to be sent to the Office of Admissions at 201 Criser Hall, PO Box 114000,

Gainesville, FL 32611-4000. You will not be able to register for a class until your official transcript has been received.

### Course selection

Students should take the required courses listed for each of the certificates, usually one per semester, depending on their circumstances and time available for study. We suggest that fully employed students do not take more than one course the first semester. The beginning course for each certificate is ENY 5006 and 5006L, Graduate Survey of Entomology and Lab (unless you have had an equivalent course).

Many options for elective courses are listed but other courses could be substituted at the discretion of the certificate coordinators. The coursework used to satisfy a certificate MAY NOT be used to count toward another certificate or a minor. Coursework used for a graduate certificate MAY be used to fulfill the requirements for a graduate degree.

Course availability can be accessed on the Department of Entomology & Nematology web page, <http://entnemdept.ifas.ufl.edu/> under Academics, online learning, frequently asked questions, distance courses. Course syllabi are linked to the course numbers on this page. Please contact the listed instructor if you are registered for a course and cannot access the course content on the course management system (either Sakai or Canvas).

### Course Registration

Degree-seeking - Degree-seeking students may register themselves as usual, either on their own or with the help of Ms. Ruth Brumbaugh.

Non-degree seeking – Non-degree seeking students should contact Ms. Brumbaugh ([brumbaugh@ufl.edu](mailto:brumbaugh@ufl.edu), 352-273-3912) two months before the beginning of the next semester and request registration in the course(s) that they want to take in the upcoming semester.

If you want to drop the course, without having to pay the tuition and associated fees, you must do so within the first week of classes (spring and fall semesters), or the first two DAYS of class in the summer semester. In other words, you must drop the course during the scheduled Drop/Add period that is posted on the ISIS web page. Failure to drop the course will result in liability for the full cost of the course. Failure to pay your bill will result in a hold on future registration in any class at the University of Florida and may result in your account being sent to a collection agency.

### Progression through the certificate program

Register through Ms. Brumbaugh each semester. Once registered, contact the professor in the course, and let him/her know that you are enrolled, before the first day of classes. They may give you specific instructions on how to access their course, especially if it is not being offered through e-Learning. Most courses will simply show up in your [e-Learning](#) account once you have been registered.

Almost all of our courses are taught online for these programs (exception is ENY 6591C Mosquito Identification). A Gatorlink (yourname@ufl.edu) account will grant you access to your course online, UF

libraries, and billing (be sure to pay on time to avoid late fees). You must use this email (yourname@ufl.edu) account for all correspondence with your instructors.

You will receive course announcements and instructions at your Gatorlink email account. Almost all of our courses are offered using e-Learning at UF <https://lss.at.ufl.edu/>.

Your course will open several days before the official start of the semester. It is your responsibility to log onto e-Learning and to keep up with the course requirements. Many of our courses have assignments due during the first week of class.

Semesters start in mid-August, early January and mid-May. Specific dates are found on the Registrar's web page, <http://www.registrar.ufl.edu>.

### Completion of the certificate

Students must apply to receive the certificate in the semester in which they take the final course in the certificate. Apply through <https://one.ufl.edu/> by clicking on Student Self Service, then Certificate/Degree Application. You must apply within the first two weeks of the semester in which you plan to receive the certificate.

The Graduate School requires an average of B or better in order to receive the certificate. Students will receive credit for courses in which they score a C or higher, but the average over all courses must be at least a B. Required courses for which students receive a C- or lower must be retaken and at least a C earned.

A pre-completion final exam is required to assess achievement of the Student Learning Outcomes listed below. The final exam will be administered in the semester in which the last course in the certificate is taken. When you request registration for the last course in your certificate, let [Ruth Brumbaugh](#) know that you will need to take the final assessment this semester. The final exam will be open book, administered in E-Learning, and checked with Turnitin anti-plagiarism software to ensure originality. The exam will be graded by the certificate coordinator using a rubric and responses will be discussed with the student.

### Student Learning Outcomes

#### Urban pest management

1. Identify household and structural pests and describe their biology
2. Develop management options for household and structural pests
3. Integrate pest management practices into building maintenance practices
4. Assimilate technical information related to household and structural pests and their management
5. Communicate pest-related hazards and benefits related to humans, pets and other environmental factors, and economics

### Medical entomology

1. Identify biting arthropods and describe their biology
2. Discuss biology of mosquitoes and arthropod-borne diseases
3. Develop management options for mosquitoes and the diseases they vector
4. Assimilate technical information related to vector ecology and management
5. Communicate arthropod-related hazards and benefits related to humans, wildlife and other environmental factors, and economics

### Landscape pest management

1. Identify landscape pests and describe their biology
2. Develop management options for landscape pests
3. Integrate pest management practices into landscape maintenance practices
4. Assimilate technical information related to landscape pests and their management
5. Communicate pest-related hazards and benefits related to humans, wildlife and other environmental factors, and economics

### Transferring credit to a degree program

If you decide after taking a few courses as a non-degree seeking student or earning a certificate that you would like to apply for a M.S. degree (online, non-thesis), please contact the [Graduate Coordinator](#). You will need to apply to the Office of Admissions, following these [instructions](#). The Graduate School requires an upper division undergraduate GPA of at least 3.0, acceptable GRE scores, and TOEFL scores of at least 80 for international students from countries where English is not the official language. If you are admitted to the online M.S. program, up to 15 hours of UF graduate courses, earned with a grade of B or better, may be transferred into your graduate program from your certificate courses. Successful completion of a graduate certificate does NOT guarantee acceptance into the M.S. program.

### Courses

#### **Certificate in Urban Pest Management (choose 15 credits from this list of courses)**

##### Required

- ENY 5006 Graduate Survey of Entomology (2)
- ENY 5006L Graduate Survey of Entomology Laboratory (1)
- ENY 5223C Biology and Identification of Urban Pests (3)
- ENY 5226C Principles of Urban Pest Management (3)

##### Elective

- ENY 5332 Graduate Survey of Urban Vertebrate Pest Management (2)
- ENY 6166 Insect Classification (3)
- ENY 5572 Advanced Apiculture (3)
- ENY 6665 Advanced Medical and Veterinary Entomology (3)
- ENY 6665L Advanced Medical and Veterinary Entomology Laboratory (1)
- ENY 5236 Insect Pest and Vector Management (3)

**Certificate in Landscape Pest Management (choose 15 credits from this list of courses)**

Required

ENY 5006 Graduate Survey of Entomology (2)  
ENY 5006L Graduate Survey of Entomology Laboratory (1)  
ENY 5516 Turf and Ornamental Entomology (3)  
ENY 6166 Insect Classification (3)

Elective

ENY 5212 Insects and Wildlife (3)  
ENY 5236 Insect Pest and Vector Management (3)  
ENY 6905 Fundamentals of Pest Management  
IPM 5305 Principles of Pesticides (3)  
NEM 5004C Graduate Survey of Nematology (3)

**Certificate in Medical Entomology (choose 15 credits from this list of courses)**

Required

ENY 5006 Graduate Survey of Entomology (2)  
ENY 5006L Graduate Survey of Entomology Laboratory (1)  
ENY 6665 Advanced Medical and Veterinary Entomology (3)  
ENY 6665L Advanced Medical and Veterinary Entomology Lab (1)  
ENY 6591C Advanced Mosquito Identification (3)  
ENY 6593 Advanced Mosquito Biology (3)

Elective

ALS 6166 Exotic Species and Biosecurity (3)  
ENY 5226C Principles of Urban Pest Management (3)  
ENY 5566 Tropical Entomology (3)  
ENY 5212 Insects and Wildlife (3)  
ENY 5236 Insect Pest and Vector Management (3)  
ENY 6203 Insect Ecology (3)  
ENY 6203L Insect Ecology Laboratory (1)  
ENY 6651 Insect Toxicology (3)  
ENY 6905 Blood Feeding Insects (1)  
ENY 6905 Mosquito Management (1)