

BIOLOGY AND IDENTIFICATION OF URBAN PESTS

Fall Semester | 3 Credit Hours | Online Asynchronous Format



Office Hours

Four office hour meetings, please use the following [booking link](#) to schedule meetings. Also, please feel free to direct any questions about the course through email (lee.t1@ufl.edu) with subject line: “ENY5223- *Your Name*”.

Course Description

This course covers the life cycles, behaviors, and identifying characteristics of major urban pests, such as cockroaches, termites, bed bugs, fleas, and ants. We will discuss food preference and source of infestation for each urban pest group. We will also cover the effects of urban pests on human health and well-being.

ENY5223C

Instructor

Dr. Tae Young Lee

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352-273-3953

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Email

Each student must have an active email account. The University of Florida requires that you obtain a student ID# and a Gatorlink email account as part of your registration process. The instructor may post class notices to your Gatorlink email account. While many of you already have independent email accounts, you must also obtain a University of Florida Gatorlink email account for use as a registered student.

Instructional Methods

This course will be presented to students in asynchronous online format. There will be 14 online modules that will be released on a weekly basis. Each module will contain lectures and assignments pertaining to different urban pest groups. Students can complete module activities independently on their own schedule, but please note that exams and assignments will have set deadlines.

The course schedule is available both on the Canvas eLearning site and at the end of the syllabus. Please be sure to regularly consult the course schedule and be aware of upcoming deadlines. The instructors will send regular announcements as reminder of upcoming assignments and weekly expectations

Laboratories

Laboratory activities will focus on the identification of major urban pests. In each module, a lab lecture will provide the key identifying features of certain pest groups. Using this information, students will design a dichotomous key for identifying various urban pests at family to species levels. To further help students recognize the identifying characteristics, each module will provide photographs urban pests at various angles.

The lab assignment is designed to be a semester-long project in designing a key for all the urban pests covered in the course. For weekly lab assignments, students will submit portions of their key. At the end of the semester, students will combine the different portions of the key for a final submission. The completed key will hopefully be a tool useful for students even after the end of this course.

LEARNING OBJECTIVES

This course has several purposes:

Through completing the course students will be expected to:

1. Identify major pests that inhabit urban areas
2. Predict pest biology and behavior based on identification
3. Assess pest biology and behavior exploited by control strategies
4. Know the factors that elevates certain urban arthropods to pest status



Course Projects

Photo Journal Collection

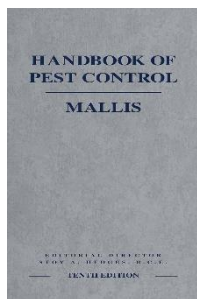
Identification is the most important step to proper management of urban pests. For a successful IPM, professionals must be able to locate and identify the pest based on collected specimen and evidence left behind. To practice locating and identifying urban pests, students will be expected to photographically document urban arthropod pests found around them. The photographed arthropods are to be identified (to family level at minimum) and submitted with collection data. Lastly, the students will provide justification for the pest status of the photographed arthropods.

Urban Pest “Featured Creatures” Article

Once a pest has been identified, pest control professionals must be able to communicate to the public about the various aspects of the pest, i.e. general biology, necessary resources, route of entry, cause of infestation, etc. To practice communication skills, students will write a short article on one of the urban arthropods they have documented. The article is to be designed similar to a “[Featured Creatures](#)” article published by IFAS. The article should be designed for a typical homeowner to learn about the urban arthropod of interest.

Optional Textbook

There is no required textbook for this course. No assignments or exams will be based on the optional textbook. Each module will have suggested reading assignment to supplement lectures.



Mallis, Arnold. *Handbook of Pest Control*. 10th Edition. 2011 Mallis Handbook Co., Cleveland, OH. ISBN: 978-1-890561-02-4. Library of Congress Catalogue Card No.:2010928977.

Note: a new version of this textbook will be published soon, so please consider purchasing the new version. Instructor will upload a scanned copy of suggested reading assignment.



Course Format and Requirements

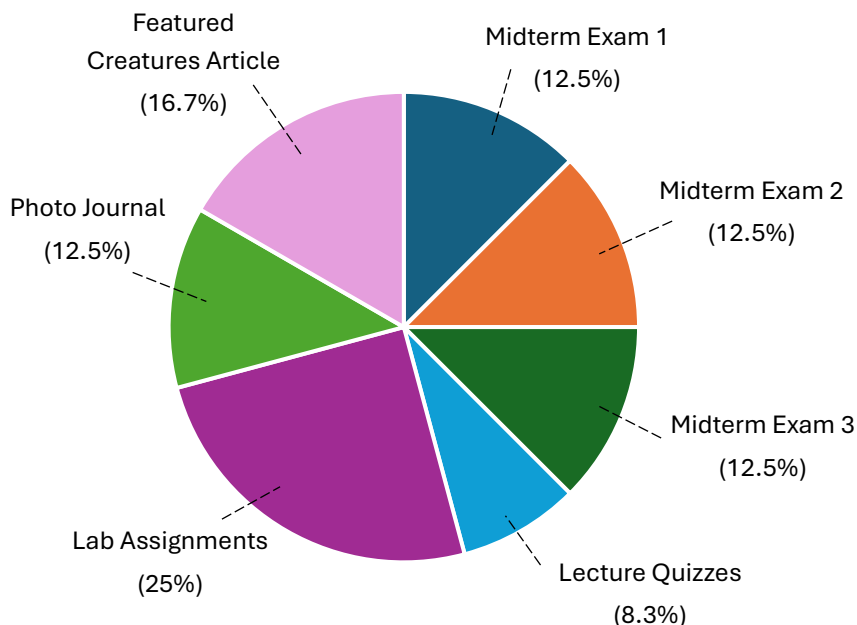
This course is offered as pre-recorded lectures delivered by the eLearning course management system Canvas. Students must have reliable connection to the internet to complete this course.

Course materials will be gradually released over the semester to help with pacing. All assignments must be submitted online.

Course Policy

Course Grading

This course uses a point system for grading. The anticipated maximum that can be earned in the course is 1200 points**



At the end of the semester, your total course grade will be converted to a letter grade using the scale below:

93 – 100% = A	80 – 82.9% = B-	67 – 69.9% = D+
90 – 92.9% = A-	77 – 79.9% = C+	63 – 66.9% = D
87 – 89.9% = B+	73 – 76.9% = C	60 – 62.9% = D-
83 – 86.9% = B	70 – 72.9% = C-	below 60% = E

Online submissions

Students are responsible for verifying that assignments are successfully uploaded/submitted into Canvas. The instructor is not responsible for failed submissions due to internet issues. Locating a hard-wired connection (UF or public library) greatly reduces the instance of technical issues.

Contact the instructor early if you foresee difficulty with maintaining a hard-wired connection (e.g. military service or living abroad). Please also consult UF Helpdesk if you are having internet connection issues: <https://helpdesk.ufl.edu/> | 352-392-4357

UF Grade Point Policy

More information for assigning grade points can be found here:

<https://catalog.ufl.edu/UGRD/academic-regulations/grades-grading-policies/>



**Grade distribution

Midterm Exam 1	150 pts
Midterm Exam 2	150 pts
Midterm Exam 3	150 pts
Lecture Quizzes	100 pts
Lab Assignments	300 pts
Photo Journal	150 pts
Featured Creatures Article	200 pts

Total:	1200 pts
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UF Policies

Absences and Make-Up Work

Since this is an asynchronous online course there are no attendance requirements; however, requirements for make-up exams, assignments and other work are consistent with university policies that can be found at: <https://catalog.ufl.edu/UGRD/academic-regulations/attendance-policies/>

Class Recording

Students are allowed to record video or audio of class lectures. However, the purposes for which these recordings may be used are strictly controlled. The only allowable purposes are (1) for personal educational use, (2) in connection with a complaint to the university, or (3) as evidence in, or in preparation for, a criminal or civil proceeding. All other purposes are prohibited. Specifically, students may not publish recorded lectures without the written consent of the instructor.

A “class lecture” is an educational presentation intended to inform or teach enrolled students about a particular subject, including any instructor-led discussions that form part of the presentation, and delivered by any instructor hired or appointed by the University, or by a guest instructor, as part of a University of Florida course. A class lecture does not include lab sessions, student presentations, clinical presentations such as patient history, academic exercises involving solely student participation, assessments (quizzes, tests, exams), field trips, private conversations between students in the class or between a student and the faculty or guest lecturer during a class session.

Publication without permission of the instructor is prohibited. To “publish” means to share, transmit, circulate, distribute, or provide access to a recording, regardless of format or medium, to another person (or persons), including but not limited to another student within the same class section. Additionally, a recording, or transcript of a recording, is considered published if it is posted on or uploaded to, in whole or in part, any media platform, including but not limited to social media, book, magazine, Course Format and Requirements. A student who publishes a recording without written consent may be subject to a civil cause of action instituted by a person injured by the publication and/or discipline under UF regulation.

Academic Honesty

As a student at the University of Florida, you have committed yourself to uphold the Honor Code, which includes the following 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.” You are expected to exhibit behavior consistent with this commitment to the UF academic community, and on all work submitted for credit 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."

It is assumed that you will complete all work independently in each course unless the instructor provides explicit permission for you to collaborate on course tasks (e.g. assignments, papers, quizzes, exams). Furthermore, as part of your obligation to uphold the Honor Code, you should report any condition that facilitates academic misconduct to appropriate personnel. It is your individual responsibility to know and comply with all university policies and procedures regarding academic integrity and the Student Honor

Code. Violations of the Honor Code at the University of Florida will not be tolerated. Violations will be reported to the Dean of Students Office for consideration of disciplinary action. For more information regarding the Student Honor Code, please see: <http://www.dso.ufl.edu/sccr/process/student-conduct-honor-code>.

Services for Students with Disabilities

The Disability Resource Center coordinates the needed accommodations of students with disabilities. This includes registering disabilities, recommending academic accommodations within the classroom, accessing special adaptive computer equipment, providing interpretation services and mediating faculty-student disability related issues. Students requesting classroom accommodation must first register with the Dean of Students Office. The Dean of Students Office will provide documentation to the student who must then provide this documentation to the Instructor when requesting accommodation 0001 Reid Hall, 352-392-8565, <https://disability.ufl.edu/>.

Software Use

All faculty, staff and students of the university are required and expected to obey the laws and legal agreements governing software use. Failure to do so can lead to monetary damages and/or criminal penalties for the individual violator. Because such violations are also against university policies and rules, disciplinary action will be taken as appropriate.

Online Evaluation Process

Student assessment of instruction is an important part of efforts to improve teaching and learning. At the end of the semester, students are expected to provide feedback on the quality of instruction in this course using a standard set of university and college criteria. Students are expected to provide professional and respectful feedback on the quality of instruction in this course by completing course evaluations online via GatorEvals. Guidance on how to give feedback in a professional and respectful manner is available at: <https://gatorevals.aa.ufl.edu/students/>. Students will be notified when the evaluation period opens and can complete evaluations through the email they receive from GatorEvals, in their Canvas course menu under GatorEvals, or via <https://ufl.bluera.com/ufl/>. Summaries of course evaluation results are available to students at: <https://gatorevals.aa.ufl.edu/public-results/>.

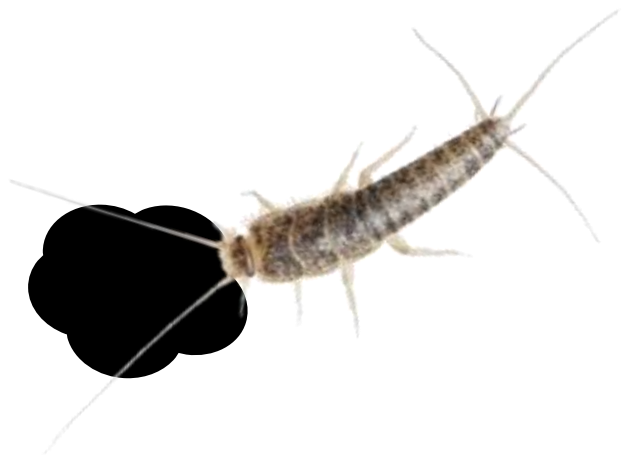
Academic Resources

- E-learning technical support: Contact the UF Computing Help Desk at 352-392-4357 <https://helpdesk.ufl.edu/> or via e-mail at helpdesk@ufl.edu.
- Career Connections Center: Reitz Union Suite 1300, 352-392-1601. Career assistance and counseling services.
- Library Support: Various ways to receive assistance with respect to using the libraries or finding resources.
- Teaching Center: 1317 Turlington Hall, 352-392-2010. General study skills and tutoring.
- Writing Studio: 2215 Turlington Hall, 352-846-1138. Help brainstorming, formatting, and writing papers.
- Student Concern: [Report Student Concerns or Conduct](#)

Campus Helping Resources

Students experiencing crises or personal problems that interfere with their general well-being are encouraged to utilize the university's counseling resources. The Counseling & Wellness Center provides confidential counseling services at no cost for currently enrolled students. Resources are available on campus for students having personal problems or lacking clear career or academic goals, which interfere with their academic performance.

- University Counseling & Wellness Center, 3190 Radio Road, 352-392-1575, www.counseling.ufl.edu/cwc/
 - Counseling Services
 - Groups and Workshops
 - Outreach and Consultation
 - Self-Help Library
 - Training Programs
 - Community Provider Database
- U Matter We Care, www.umatter.ufl.edu/
- Career Resource Center, First Floor JWRU, 392-1601, www.crc.ufl.edu/
- Student Success Initiative, <http://studentsuccess.ufl.edu>.
- Student Complaints:
 - Residential Course: <https://sccr.dso.ufl.edu/policies/student-honor-code-studentconduct-code/>.
 - Online Course: <http://www.distance.ufl.edu/student-complaint-process>



Course Calendar

Below is a tentative* schedule of topics and assignments for the semester.

Week	Days	Topics
1	1 st day-Friday	Overview of Urban Entomology Phylogeny & Evolution of Urban Pests Lab: Phylogeny and ID of Urban Pest Class & Orders
2	Monday-Friday	Introduction to Cockroaches Domestic & Peridomestic Cockroaches Lab: Cockroach Identification
3	Monday-Friday	Incidental Pests: Arthropods in damp spaces Incidental Pests: Indoor Ants Lab: Incidental Pest Identification
4	Monday-Friday	Introduction to termites One-piece termites Subterranean termites
5	Monday-Friday	Non-protist termites Lab: Termite Identification Thursday: Midterm Exam 1 window opens
6	Monday-Friday	Monday (11:59PM): Midterm Exam 1 window closes Wood-boring Beetles Wood-boring Hymenoptera Lab: Wood-boring Beetles & Hymenoptera Identification
7	Monday-Friday	Pests of Stored Food Pests of Fabric and Fiber Lab: Stored-product pests Identification Friday (11:59PM): Dichotomous Key Midpoint Check
8	Monday-Friday	Stinging Hymenoptera Venomous Arachnids Lab: Venomous Arthropods Identification
9	Monday-Friday	Filth Flies Biting Louse Lab: Filth Flies Identification
10	Monday-Friday	Biting Hemiptera Lab: Biting Acercaria Identification Thursday: Midterm Exam 2 window opens
11	Monday-Friday	Monday (11:59PM): Midterm Exam 2 window closes Mosquitoes Biting Flies Lab: Biting Flies Identification

Week		Topics
12	Monday-Friday	Fleas Lab: Flea Identification
13	Monday-Friday	Parasitic Acari Lab: Parasitic Acari Identification
14	Monday-Friday	Delusory Parasitosis Friday (11:59PM): Photo Journal Collection Due
15	Monday-Friday	Thanksgiving Holidays
16	Monday-Friday	Tuesday (11:59PM): Featured Creatures Article Assignment Due Friday (11:59PM): Final Dichotomous Key Lab Assignment Due
Finals Week		Monday (8:00AM)- Wednesday (5:00PM): Midterm Exam 3 Window

** Although we will do our best to adhere to this schedule, it may be adjusted during the semester to accommodate opportunities, disruptions, and other circumstances. These changes will be communicated clearly via Canvas.*