

ENY 3005: Principles of Entomology Lecture, Fall 2009



Lecture Instructor:

Dr. Christine Miller
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Lectures: Tues. & Thurs. period 3 (9:35 - 10:25am); Room 1031 Entomology Building.

Office hours: 10:30 to 11:30am Tuesdays and Thursdays, and by appointment.

ENY 3005 Homepage: <http://basicentomology.ifas.ufl.edu/>

From here you can link to the lecture website and the lab website

Purpose and Teaching Objectives

ENY 3005 provides an introduction to the study of insects while simultaneously addressing fundamental concepts in ecology, evolution, and animal behavior. The diversity and abundance of insects has made them excellent organisms for the study of such broad concepts in biology. The focus of this course will be on such concepts; however, this course will also include a firm foundation in entomological terminology. After this semester, students should be able to speak the “language of Entomology.” This course provides a framework for understanding the world of insects, their evolutionary history and the ecological significance and will prepare students for higher-level Entomology and biology studies.

Overall course objectives

1. Identify and name insects with a general biological classification and group them according to major distinguishing characteristics.
2. Describe the generalized anatomy and physiology of insects,
3. Judge the ecological importance of the relationship of insects to other insects, animals and plants, using examples of specific insects.
4. Effectively analyze and critique entomological papers.

Textbook: INSECTS: An Outline of Entomology. 3rd edition, by Gullan and Cranston

Grading: Grades are a measure of the quality of student work, not personal worth.

Your grade will be computed as follows:

Two Examinations (100 points each)	200 points
Quizzes and assignments	100 points
Term Paper (see course website)	100 points
<u>Comprehensive Final Examination</u>	<u>200 points</u>
Total Points Available	600 points

The only extra credit opportunities in ENY 3005 come as occasional questions on exams. There will be no other extra credit options. Final grades are based on percentages of total points possible. The exam and quiz scores are not curved.

Grades and associated percent ranges %

A	93-100	A-	90-92	B+	88-89
B	83-87	B-	80-82	C+	78-79
C	73-77	C-	70-72	D+	68-69
D	63-67	D-	60-62	E	<60

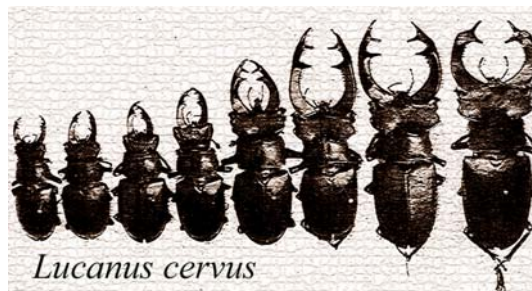
Absences:

If you miss a lecture, it is YOUR responsibility to acquire notes from classmates. **Do not ask the instructor for these materials.**

If you miss an exam there will be no make-up available. You must have a valid (physician's) note indicating reasons for the absence. Students with such valid notes will be allowed to take a special **ORAL** examination.

New Policy on Collecting Equipment: You will be issued insect collecting and curation equipment in lab. We have had increasing problems getting this equipment returned, and it is expensive to replace. This semester, you will NOT be allowed to submit your final insect collection in lab unless 100% of your collecting equipment is returned AT THE SAME TIME. You will get a Ø on your final collection and a minimum two letter grade reduction in your lab grade if you do not turn in your equipment. There will be no acceptable excuses for not following this policy.

Lecture Strategy: This is an upper division course at a major university. Thus, both the instructor and the student have responsibilities in the learning process. **You will be expected to UNDERSTAND the major concepts of each assigned chapter BEFORE the lecture(s) associated with that chapter.** Study guides (posted on website) will help you focus your study efforts. Lectures will NOT be a regurgitation of material from the textbook. **Lecture will be supplemental material that tries to provide example and context. IT IS TOTALLY YOUR RESPONSIBILITY TO ASK APPROPRIATE QUESTIONS about the text assigned readings.** If you do not, the instructor will assume you have read and fully understand it. **Examinations will cover both assigned text and lecture supplemental material.**



Tentative Lecture Schedule, Fall 2009 Material each week will correspond to parts of the core syllabus and textbook. This schedule is the most flexible and dynamic part of the course. The instructor will make every effort to disseminate information pertinent to each week as far in advance as possible. **Please check the course home page on the internet well before each class period for important announcements and requirements.**

Week and Dates	Topic	Textbook Chapters	Extra (required) Reading / Guests	Assignments/ Quiz/ Exams
Week 1 (Aug. 25, 27)	Significance/ diversity of insects	1	The little things that run the world, E.O. Wilson	
Week 2 (Sept. 1, 3)	External morphology	2	Dig it, and they will come, Douglas Emlen "Fresh Air" interview with Douglas Emlen (in class)	
Week 3 (Sept 8, 10)	Internal anatomy and physiology Sensory systems and behavior	3 4	Guest lecturer, September 10 th (1/2 of class) Dr. Marc Branham on bioluminescence	Assignment #1 due Tuesday (25pts)
Week 4 (Sept. 15, 17)	Reproduction	5 (optional)	Chapters 11 & 12 in Alcock "Animal Behavior"	Quiz on hexapod orders on Thursday (50pts)
Week 5 (Sept. 22, 24)	Insect development and life history	6	Guest lecturer, September 24 th (1/2 of class) Samantha Hilber	
Week 6 (Sept. 29, Oct. 1)	Insect evolution (Part I) Catch-up and review for exam	8 (optional)	Insect evolution readings (website)	
Week 7 (Oct. 6, 8)				Exam # 1 on October 6th

	Insect evolution (Part II)		Insect evolution readings (website)	
Week 8 (Oct. 13, 15)	Group discussion on interpreting scientific publications Aquatic and cave insects	9	Holbrook & Schaal 2004 -and- associated terms list and guide	Assignment # 2 due Tuesday (25pts – <i>no</i> excuses accepted for late work)
Week 9 (Oct. 20, 22)	Ground-dwelling insects Insects and plants	10 11		
Week 10 (Oct. 27, 29)	Predation and parasitism	13		Detailed term paper outline due on Thursday (10pts)
Week 11 (Nov. 3, 5)	Insect defense	14		
Week 12 (Nov. 10, 12)	Catch-up and review for exam			Exam # 2 on Thursday
Week 13 (Nov. 17, 19)	Insect societies	12		
Week 14 (Nov. 24)	Applied Entomology 1: MedVet	15		Term paper due (90pts)
Week 15 (Dec. 1, 3)	Applied Entomology 2: Pest management 3: Insect conservation	16	Samways 2007	
Week 16 (Dec 8)	Catch-up and review for final exam			
Week 17 (Dec 14 th)				Final Exam 12:30 – 2:30PM

The Official Final Comprehensive Exam-(ENY 3005 and ENY5006) is Monday, December 14th, 12:30 – 2:30pm. If you have a major conflict with this time, you need to talk to me by October 1st; otherwise the exam time is not negotiable.

Resources:

1. The Entomology/Nematology Department has a computer-teaching laboratory. This lab is across the hall from the lectures.
2. Every student must have access to a computer in accordance with UF and College of Agriculture policies. Additional information on computer use is available from the Center for Instructional and Research Computing Activities (CIRCA) home page (<http://www.circa.ufl.edu>).
3. Library databases (to find scientific papers) – I recommend “Web of Science”

Additional Resources:

1. UF resources can be found on the Department of Entomology and Nematology home page (<http://entomology.ifas.ufl.edu/>). Also, check out the “Featured Creatures” website (<http://creatures.ifas.ufl.edu/>).
2. Research opportunities are available. If you plan to major in a biological field, research as an undergraduate will greatly help you find a job or get into graduate school. Alternatively, if you are simply curious how “real” science is done and are willing to commit time and effort, visit:
 - a. Honors Research Database at UF (<http://www.honors.ufl.edu/webapps/researchdb/Default.aspx>)
 - b. Job list on the evolution directory (includes some non-applicable postings as well) http://evol.mcmaster.ca/cgi-bin/my_wrap/brian/evoldir/Jobs/
 - c. Student Conservation Society, for internships (<http://www.thesca.org/>)
3. Visit faculty web pages at UF, and email (be formal!) those faculty who have research that interests you.
4. Entomology as a career (<http://entnemdept.ifas.ufl.edu/specialization/04Acrofix.pdf>)

Supplementary Information: Review of Taxonomic and Entomological

Concepts:

1. The most comprehensive site on classification or taxonomy can be found at the Tree of Life (<http://www.tolweb.org>)
2. Many entomological societies exist. These include the Entomological Society of America (<http://www.entsoc.org>). Consider becoming a member!
3. Many species of insects are becoming extinct, and their benefits to the natural world and to humans are lost. Visit the Xerces Society (<http://www.xerces.org/>), an international nonprofit organization dedicated to protecting biological diversity through invertebrate conservation

UF COUNSELING SERVICES

Resources are available on-campus for students having personal problems or lacking clear career and academic goals that interfere with their academic performance. These resources include:

1. UNIVERSITY COUNSELING CENTER. 301 Peabody Hall, 392-1575, personal and career counseling
2. STUDENT MENTAL HEALTH. Student Health Care Center, 392-1171, personal counseling
3. SEXUAL ASSAULT RECOVERY SERVICES (SARS). Student Health Care Center, 392-1161, sexual counseling
4. CAREER RESOURCE CENTER. Reitz Union, 392-1601, career development assistance and counseling
5. A brochure entitled “Campus and Community Counseling Services” is available from the Office for Student Services, P202 Peabody Hall, 392-1261.

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.

HONOR PLEDGE

We, the members of the University of Florida community, pledge to hold ourselves and our peers to the highest standard of honesty and integrity. 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 on this examination”**

YOU WILL BE HELD TO THIS PLEDAGE ON ALL EXAMINATIONS AND SUBMITTED WORK IN ENY 3005.

Examples of violations of the Academic Honesty Guidelines: Cheating, Plagiarism, Bribery, Misrepresentation, Conspiracy, Fabrication. If a student violates these guidelines, he/she will receive a zero grade on the work and may be referred for disciplinary action.