

# ENY 5006: Principles of Entomology, Lecture Class



## Professor:

Dr. Christine Miller

Office: 2101 Entomology Building

E-mail: [cwmiller@ufl.edu](mailto:cwmiller@ufl.edu).

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

**Dr. Miller's office hours:** 10:25 to 11:00 am Tuesdays and Thursdays, and by appointment.

**Course TA:** Ummat Somjee, M.S. student, [usomjee@ufl.edu](mailto:usomjee@ufl.edu). Ummat is available to help you with course materials, study sessions, and he will be assisting with grading. Ummat is available during his office hours or by appointment. **Ummat Somjee's office hours:** 10:25 to 11am Tuesdays

**ENY 3005/5006 Homepage:** <http://entomology.ifas.ufl.edu/miller/eny3005/>

All course materials are on Sakai. You can access Sakai through the ENY 3005 Homepage.

## Purpose and Teaching Objectives

ENY 3005/5006 provides an introduction to the study of insects while simultaneously addressing fundamental concepts in ecology, evolution, and behavior. The diversity, abundance, and short generation times 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. This is a *science* course and is intended to encourage thinking about the processes of science.

## Overall course objectives

- 1) Improved understanding of the nature of science.
- 2) Knowledge of the insect orders.
- 3) Ability to explain the anatomy, physiology, and behaviors of insects.
- 4) Recognition of the ecological and evolutionary importance of insects.
- 5) Ability to analyze and critique the primary scientific literature.
- 6) Ability to clearly communicate complex ideas to your peers and to undergraduates.

**Required Textbook:** Daly and Doyen's Introduction to Insect Biology and Diversity by Whitfield and Purcell, 3<sup>rd</sup> Edition. It is available at the Bookstore and online, e.g. <http://www.amazon.com/Doyens-Introduction-Insect-Biology-Diversity/dp/0195380673>

**Video:** Students are expected to watch the Life in the Undergrowth series, which is described here: <http://www.bbc.co.uk/sn/tvradio/programmes/lifeintheundergrowth/>. Students are responsible for locating and viewing these videos outside of class time. The videos can be rented through Amazon.com and Netflix. Two copies are also on course reserves at the Marston Science Library. Please be aware that going to the library the day the questions on the videos are due is probably not a good idea due to competition with other students for the video.

**Course notes, slides, reading, and other materials:** Available on or through Sakai. All exam questions will be based on these notes and the lecture materials.

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

**The grades for graduate students will be computed as follows:**

<b>17 short Sakai quizzes due 10pm the evening before each class period</b> (5pts each)	85 points
<b>Six in-class exercises</b> (5pts each)	30 points
<b>Hexapod order quiz</b>	25 points
<b>Two assignments</b> (25pts each)	50 points
<b>Oral presentations</b> (50pts each)	100 points
<b>Two Mid-Semester Examinations</b> (100pts each)	200 points
<b><u>Comprehensive Final Examination</u></b>	<u>100 points</u>
<b>Total Points Available</b>	<b>590 points</b>

Final grades are based on percentages of total points possible. The exam and quiz scores are not curved. There will be one or two opportunities for bonus points announced in class. Students in previous semesters have found the extra points really help. Graduate students are required to present two topics to undergraduates in a lecture/discussion format.

**Grade and associated percent ranges %**

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



**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 unless you have a valid physician's note indicating reasons for the absence. Students with such valid notes will be allowed to take a make-up examination that will have an **ORAL** component.

**Disability status:** Please inform Dr. Miller as soon as you can if you have disability status

**Lecture Strategy:** This is an upper division course at a major university. Thus, students have major responsibilities in the learning process. You will be expected to understand the major concepts of each lecture BEFORE the lecture(s) associated with that chapter. Study guides and readings (posted on website) will help you focus your study efforts. The Sakai quizzes, due before most class periods, and the in-class exercises are designed to help students keep up with the materials and to develop critical thinking skills. Please feel free to ask questions in class, email the instructor, or come to office hours as you prepare for exams. If you do not, the instructor will assume you have read and fully understand classroom material.



**Photos: Alex Wild, <http://www.alexanderwild.com/>**

**Approximate Lecture Schedule:** This schedule is the most 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 Sakai page on the internet prior to each class period. **Readings/media for each class period includes the study guides, the textbook, and anything else posted in the Sakai folder for the topic.**

Week and Dates	Topic	Important events	Sakai quiz due?	Reading in textbook
Week 1	Significance and diversity of insects  What is an insect?			Chapter 1
Week 2	Insect evolution (macro-evolution)		Mon & Wed 10pm	Chapter 16
Week 3	External morphology	Assignment # 1, The work of Dr. Emlen, <b>due Wednesday, 10pm</b>	Mon 10pm	Chapters 2 & 3
Week 4	Internal anatomy, physiology, and development	<b>Quiz</b> on hexapod orders on Thursday in class	Mon 10pm	Chapters 4 & 5 Chapter 11, pages 247-249
Week 5	Sensory systems and behavior	<b>Exam</b> on Thursday in class	Mon 10pm	Chapter 6
Week 6	Insect evolution (micro-evolution)		Mon & Wed 10pm	Study guides only
Week 7	Med/Vet entomology  Thursday - Group discussion on interpreting scientific publications	Assignment #2 <b>due Wednesday, 10pm</b> . Bring a copy to class— <u>no</u> excuses accepted for late work	Mon 10pm	Chapter 12
Week 8	Sexual selection in insects  Insect flight (guest speaker)		Mon & Wed. 10pm	For sexual selection: Study guide For insect flight: Chapter 16, pages 323-326 Chapter 5, pages 122-126
Week 10	Insects and plants		Mon & Wed 10pm	Chapter 9
Week 11	Social insects		Mon 10pm	Chapter 7
Week 12	Predation and parasitism, insect defense	Assignment #3 DUE: only for undergraduates, not graduate students.	Mon 10pm	Chapter 8, pages 199-211 Chapter 10
Week 13	Pest management	<b>Exam</b> on Thursday in class	Mon 10pm	Chapter 8, pages 193-198
Week 14	Undergraduate student presentations (A)  Undergraduate student presentations (B)		<b>none</b>	Chapter 14
Week 15	Current topics in pest management  Insect conservation		Mon & Wed 10pm	Chapter 13
Week 16	Undergraduate student presentations (C)		<b>none</b>	
Week 17		<b>Final Exam</b> on Monday, 3-5pm in Room 1031	<b>none</b>	

**Please schedule the two oral presentations (graduate students only) with Dr. Miller within the first three weeks of the start of the semester.**

For information on current UF policies for assigning grade points, see <https://catalog.ufl.edu/ugrad/current/regulations/info/grades.aspx>

### **Absences and Make-Up Work**

Requirements for class attendance and make-up exams, assignments and other work are consistent with university policies that can be found at: <https://catalog.ufl.edu/ugrad/current/regulations/info/attendance.aspx>.

### **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/honorcodes/honorcode.php>.

### **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.

### **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/](http://www.counseling.ufl.edu/cwc/)*

Counseling Services  
Groups and Workshops  
Outreach and Consultation  
Self-Help Library  
Training Programs  
Community Provider Database

☐ *Career Resource Center, First Floor JWRU, 392-1601, [www.crc.ufl.edu/](http://www.crc.ufl.edu/)*

### **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, [www.dso.ufl.edu/drc/](http://www.dso.ufl.edu/drc/)

**Plagiarism:** The UF Science and Engineering policy about plagiarism is located at <http://www.uflib.ufl.edu/msl/07b/students.html>. You are expected to understand this policy. Please let us know in advance of turning in your assignments if you do not understand the policy. Plagiarism will not be tolerated in this course.