

**BISC 337 - FALL 2012
INTRO. ENTOMOLOGY**

Lecture: Shoemaker 114 (9:30 -10:45 TT) **INSTRUCTOR: PAUL K. LAGO**
Lab: Shoemaker 205 (1:00 - 4:50 Thur.) **OFFICE: Shoemaker 224**
 TA-Reese Worthington rworthin@olemiss.edu **phone - 7472 (plago@olemiss.edu)**

Texts: Borror and DeLong's Introduction to the Study of Insects [7th]
Recommended - Borror & White - A Field Guide to the Insects

<u>Date</u>	<u>Lecture Subject</u>	<u>Lab (quizzes TBA)</u>
Aug 21	Introduction	
Aug 23	What is an insect?	Equipment checkout & survey
Aug 28	The head and its appendages	
Aug 30	The head again	Field Trip (be prepared!)
Sept 4	The thorax	
Sept 6	The thorax and locomotion	External Morphology (F.T.?)
Sept 11	The abdomen + metamorphosis types	
Sept 13	The basics of Taxonomy	Use of keys
Sept 18	Test I	
Sept 20	Biology and Tax. of Orders	Ametabola - Hemimetabola
Sept 25	Biology and Tax. of Orders	
Sept 27	Biology and Tax. of Orders	Paurometabola
Deadline for course withdrawals		
Oct 2	Biology and Tax. of Orders	
Oct 4	Biology and Tax. of Orders	Holometabola
Oct 9	Biology and Tax. of Orders	
Oct 11	Test II	Coleoptera
Oct 16	Biology and Tax. of Orders	
Oct 18	Biology and Tax. of Orders	Diptera
Oct 23	Biology and Tax. of Orders	
Oct 25	Biology and Tax. of Orders	Lepidoptera & Hymenoptera
Oct 30	Internal anat. & physiology	
Nov 1	Internal anat. & physiology	Internal anatomy & collection
Nov 6	Test III	
Nov 8	Reproduction	Work on collections
Nov 13	No Class (ESA)	
Nov 15	Ecdysis & metamorphosis	Work on collections
Nov 20	Fall Break	
Nov 22	Fall Break	
Nov 27	Nervous system & behavior	<u>Collections & equipment due</u> (4:00 pm)
Nov 29	Behavior and coloration	<u>Final Lab Test</u>

Final test: Thursday, 6 December 2011, 8:00 am.

Although we will cover a wide variety of topics concerning insect biology, the primary focus of this class is the identification of major insect groups. The best way to learn these is to collect, mount, label and identify your own specimens, and much emphasis is placed on this activity. This will require considerable out-of-class time on your part. The more effort you put into your collection, the better your grade will be. The collection will count for 1/4 of your grade. Lecture tests will be essay and lab tests will be specimen-based. Grades will be awarded on a 90/80/70/60% basis. The +/- system will not be used in this class.

The goal in this class is to acquaint students with the amazing world of insects. According to an ancient proverb, the beginning of all knowledge involves being able to apply the correct name to living things, and that will be a major focus of this class. In addition, we will explore basic biology of this very diverse group and learn enough anatomy to be able to successfully use complex taxonomic keys.

The primary learning objectives of this course are many. By the end of the semester, students will:

1. have an appreciation of the relationship between insects and man
2. understand basic insect anatomy
3. understand metamorphosis and different life histories
4. have a general knowledge of insect physiology
5. learn collecting techniques
6. learn proper preservation techniques, including, mounting and labeling specimens
7. recognize all orders and many common families of insects

Lecture exam format will be essay, with numerous drawings to be produced or labeled. Lab quizzes and exams will usually involve identification, either of anatomical parts or of taxonomic groups, and will require use of a microscope.

This is an upper division course with enrollment kept to a small number. Part of the reason for this is because we will take a variety of field trips and large classes do not work well in the field. Field trips may occur during class time or outside of class (particularly at night). Attendance is expected, although exceptions may be made for night trips. Proper attire is essential.

A properly produced insect collection is required. If you make good use of the field trips, you may not need much more time to accumulate your specimens, but extra effort along these lines always pays off. It takes a fair amount of effort in collecting, mounting, labeling and identifying your specimens to finish with a product worthy of a good grade. Only the best quality collections will receive the highest grades.