

General Entomology Course (ENTO 4000/6000) Tifton Syllabus: Fall 2008

Monday 10:10-11:00 AM, Wednesday 8:00-11:00 AM

Lecturers: Dr. James Dutcher (dutch88@uga.edu)

and Dr. John R. Ruberson (ruberson@uga.edu)

Laboratory Instructor: Dr. David G. Riley (dgr@uga.edu)

Location: NESPAL Building Room 201

Contact: Main Entomology Tel. 386-3374

Teaching Assistant: Anitha Chitturi, 105 Main Entomology Bldg. Tel. 391-3703



Dr. Dutcher's and Dr. Ruberson's offices are in Rooms 120 and 108, respectively, in the Entomology Annex Building, east of NESPAL. Dr. Riley's office is in Room 109 of the Main Entomology Building. Office hours for each instructor will be arranged by appointment, so if you have questions or concerns please do not hesitate to contact us. There is a text book required for the course, "Introduction to Insect Biology and Diversity", and class notes will be supplemented with handouts.

Course objectives

The educational goal of the course is to acquaint you with insects. We want you to become familiar with the insects that annoy you, eat your food, and transmit diseases. We also want you, as a consumer of agricultural products, to know what demands you are making on farmers, and how these demands influence the environment. But perhaps most importantly of all, we want you to gain an appreciation of the incredible diversity of the insect world. Many insects are pests that adversely affect man, but just as many others are beneficial or possess unique biological characteristics. This course attempts to greatly expand your awareness of just how important insects are to mankind and to more fully appreciate their biological complexity.

Laboratory objectives

The main purpose of the laboratory is to acquaint you with how to recognize the major orders and families of insects. In addition, some time will also be devoted to introducing you to insect morphology. Developing some basic taxonomic knowledge is essential to appreciating the wonderful diversity and biology of insects. It also is very important that you be able to recognize key characteristics of the insect body plan and how it compares and contrasts to other major animal groups like vertebrates.

Course Schedule (this schedule of topics is subject to modification):

Date	Lecture No.	Topic	Text pages
18 Aug (M)	1	Introduction: Why study insects? (Dutcher)	3-8, 14-19
20 Aug	2	Taxonomic classification (Dutcher)	9-13, 303-305
20 Aug	Lab-1	Collecting and mounting techniques. Hand out equipment	

25 Aug (M)	3	Basic insect morphology (Dutcher)	8-9, 27, 30, 39, 42, 45, 47
27 Aug	4	Quiz 1 on lectures 1-3 followed by lecture on Insect Orders: Protura, Collembola, Diplura, Microcoryphia, Thysanura (Dutcher)	306-319, 326-344
27 Aug	Lab-2	Field Trip. Field collecting methods.	
1 Sep (M)		Labor Day – No class	
3 Sep	5	Orders: Ephemeroptera, Odonata, Plecoptera, Blattodea, Mantodea, Isoptera, Grylloblatodea, Dermaptera, Embiidina, Orthoptera, Phasmatodea, Zoraptera, Psocoptera, Phthiraptera, (Dutcher)	345-411
3 Sep	Lab-3	Insect anatomy	
8 Sep (M)	6	Orders: Hemiptera, Thysanoptera, Megaloptera, Raphidioptera, Neuroptera, (Dutcher)	412-453
10 Sep	7	Orders: Coleoptera, Strepsiptera, Mecoptera, Diptera, Siphonaptera, (Dutcher)	454-528
10 Sep	Lab-4	Using taxonomic keys. Collembola, Diplura, Thysanura, Ephemeroptera	
15 Sep (M)	8	Orders: Lepidoptera, Trichoptera, Hymenoptera	529-600
17 Sep		EXAM 1	
17 Sep	Lab-5	Odonata, Blattodea, Mantodea, Isoptera, and Plecoptera	
22 Sep (M)	9	Plant-insect interactions (Dutcher)	209-226
24 Sep	10	Basic Components of IPM (Dutcher)	276-300
24 Sep	Lab-6	Hand out materials for insect rearing. Dermaptera, Orthoptera, Phasmida, Phthiraptera	
29 Sep (M)	11	Ag entomology - pesticides as a control tactic, decision criteria, EIL and ET (Dutcher)	
1 Oct	12	Insect ecology and adaptation to habitats (Ruberson)	187-208
1 Oct	Lab-7	Hemiptera and Neuroptera	
6 Oct (M)	13	Insect population ecology (Ruberson)	173-186
8 Oct		Quiz 2 on lectures 12-13 followed by Insect population dynamics (Ruberson)	173-186
8 Oct	Lab-8	Coleoptera	
13 Oct (M)	14	Insect social relationships (Ruberson)	153-170

15 Oct		Exam 2	
20 Oct (M)	15	Insect internal morphology, integument and development (Ruberson)	21-50
22 Oct	16	Insect Reproduction (Ruberson)	61-87
22 Oct	Lab Exam 1	Identify orders covered and bring in collection for first review of progress	
27 Oct (M)	17	Insect maintenance and movement (Ruberson)	88-123
29 Oct	18	Insect reception of stimuli (Ruberson)	124-152
29 Oct	Lab-9	Diptera	
3 Nov (M)	19	Introduction to biological control (Ruberson)	
5 Nov	20	Entomophagous arthropods (Ruberson)	227-240
5 Nov	Lab-10	Lepidoptera and Siphonaptera	
10 Nov (M)	21	Entomophagous arthropods, insects and vertebrates (Ruberson)	241-255
12 Nov		Exam 3	
12 Nov	Lab-11	Hymenoptera	
17 Nov (M)	22	Insects and microbes (Ruberson)	256-275
19 Nov	23	Insects and microbes (Ruberson)	256-275
19 Nov	Lab-11	Review and final work on collection	
24-26 Nov		Thanksgiving – No class	
1 Dec (M)	24	Insect ecology - specific examples (Ruberson)	
3 Dec	25	Insect ecology - specific examples (Ruberson)	
3 Dec	Lab Exam 2		
8 Dec (M)	26	Final review	
8 Dec	Lab-12	Insect Collection due	
?? Dec		Final Lecture Exam	

Grading:

Getting and giving grades is rough on both students and instructors. Unfortunately, it is the nature of the system that grades must be given. Grades will be based on the following items:

1. Lecture Exams (4)
2. Quizzes (2)
3. Laboratory Exams (2)
4. Insect Collection (1)

Lecture Exams

There will be four lecture exams, each worth 100 points. Exams will be given in class and will test your knowledge of the material presented during the lecture portion of the class. The first three lecture exams will be given during the semester while the fourth will serve as the final exam for the course. Students registered for ENT 6000 will have an additional take home question on the first three exams. These questions will involve an essay-type answer.

You will also be given two quizzes worth a total of 50 points. Details on what will be covered will be presented in lectures.

Laboratory Exams

There will be a two laboratory exams worth 50 points. These exams will test your knowledge of the material presented in the laboratory during the course of the semester.

Insect Collection

You will be required to make an insect collection that will be turned in for grading at the end of the semester. This collection will be worth a total of 150 points for ENTO 4000 and 250 points for ENTO 6000 which will require the collection of more specimens. Details on collection requirements and grading will be presented in laboratory.

Grading Policies

ITEM	Maximum Point Value	
	Ento 4000	Ento 6000
Lecture Exam 1	100	100
Lecture Exam 2	100	100
Lecture Exam 3	100	100
Lecture Final Exam	100	100
Quizzes	50	50
Laboratory Exam 1	50	50
Laboratory Exam 2	50	50
Insect Collection	150	250
TOTAL	700	800

Calculating a Grade

1. Add total points accumulated and divide by 700 or 800 (the maximum possible number of points depending if signed up for ENTO 4000 or 6000) and convert to a percentage.
2. Calculate grade, based on percentage distribution presented. In an ENTO 6000 example, a

student had 650/800 points, which is rounded to 81%. This is a "B"

Table for Finals Grades

Course Percentage

A	90-100%
B	80-89%
C	70-79%
D	60-69%
F	<60% We do not curve in this course.

Course Textbook:

“Introduction to Insect Biology and Diversity, 2nd Edition”, by H.V. Daly, J.T. Doyen and A.H. Purcell III (1998, Oxford Univ. Press). Cost is ca. \$118.00, but is much cheaper used at Amazon.com

Attendance:

Students are expected to attend class on a regular basis. If absent from class, it is the responsibility of the student to make up any work that is missed.

University Honor Code and Academic Honesty Policy

Students are reminded that they are bound by the University’s Academic Honesty Policy. This policy is posted on the Web at: www.uga.edu/ovpi/academic_honesty/culture_honesty.htm
All academic work must meet the standards contained in “A Culture of Honesty.” Each student is responsible to inform themselves about those standards before performing any academic work. It is expected that all students will treat everyone else in the room with respect and dignity.

Food and Drink in the Classroom:

University policy prohibits smoking, food or drink in all labs and classrooms.

Cell Phones:

Please leave cell phones either off or on silent during class, and do not text-message during class.