

Biology 355: Entomology

Fall 2004

Sonoma State University

Instructor:	Dr. Nathan Rank
Office:	Darwin 219A
Office Hours:	Wed 11:00-12:00, Thur 9:30-11:30
Telephone:	664-3053
Email:	rank@sonoma.edu
Laboratory assistant:	Frederique Lavoipierre
Email:	rockyroad56@aol.com
Lecture:	Tuesday and Thursday 1:00-2:15 pm (Darwin 218)
Laboratory:	Tuesday, 2:25-5:15 pm (Darwin 218)
Required Texts:	<u>The Insects: an outline of entomology</u> . 2000. P. J. Gullan & P. S. Cranston. Blackwell Science, Malden MA. <u>How to know the insects</u> (1994), R. G. Bland & H. E. Jaques. WCB McGraw-Hill. Dubuque, Iowa

Objectives: In this course, we will explore the biology of one of the most diverse and fascinating group of animals in the world: the insects. We will learn about the variety of insect forms, their behavior and physiology, their life histories and habitat use. We will also become familiar with use of biological keys to identify insects to order and family.

Assigned Readings: The lecture syllabus lists chapters in your texts that you should read. Other readings may be placed on reserve for you for some lecture topics. You will receive handouts for many laboratory exercises. I expect you to complete assigned readings before lecture/lab.

Office Hours: If you cannot make scheduled office hours, please arrange an appointment with me. Email is the best way to reach me outside class time or office hours.

Laboratory: An important objective in the laboratory is to become familiar with systematics, dichotomous keys, and diagnostic features of insects. You will also become familiar with major orders and families. Finally, you will prepare a collection of identified insect specimens. This provides you with opportunities to observe ecology and behavior of insects in the field.

Field trips: We will take two field trips to Fairfield Osborn Preserve to learn how to look for and collect insects, and one field trip to the California Academy of Sciences to learn about its large insect collection. Lectures will not occur on field trip days, because we will leave SSU at the beginning of lecture. All students are expected to participate in these trips. During the semester, I plan to take an optional field trip with interested students to the newly acquired Galbraeth Wildlands Preserve for exploration and insect collecting.

Participation: In order to perform well, you must attend lectures and laboratories and participate actively in the course. Please arrive on time and do not leave early. You will receive points for attendance and full participation in laboratory exercises and field trips.

Course Web Page: The class will have a web page that will include lecture notes, handouts, laboratory exercises, exam keys and scores, and links to relevant web sites. The page can be accessed via my home page or through the SSU course page.

Course Listserver: I will create a listserver. When you send email to: biol355-1@sonoma.edu, everyone in the class will receive the message. Students can use this to exchange ideas or ask questions. I will also use it to post announcements. Please use the listserver only for entomology-related topics and take care that you do not post 'private' messages to the entire list!

Assignments:

- 1) **Examinations:** There will be three midterm exams and one comprehensive final, each worth 100 points. These exams will include short answer, fill-in, and short essay questions. All exams will focus on material covered in both lecture and lab. No make-up exams will be given without a well-documented excuse (e.g. signed note from doctor or death in the family). If you could not make it to an exam because of an emergency, notify me immediately. I cannot accommodate requests for make up exams based on conflicts with students' travel plans.
- 2) **Lecture quizzes:** There will be three lecture quizzes scheduled throughout the semester. The quizzes will contain primarily short answer and fill-in questions. They will be offered at the beginning of class and take about 15 minutes to complete. There will be no make-up quizzes, even if you arrive to class on the same day.
- 3) **Laboratory quizzes:** These quizzes will focus on material covered in lab. The quizzes will contain primarily short answer and fill-in questions. Questions may be based on specimen identification, structure identification, and integration of concepts. There will be no make-up laboratory quizzes.
- 4) **Fact sheets:** You will also complete three fact sheets during the semester. The first fact sheet concerns arthropods. The second and third fact sheets will be short descriptions (c.a. 500 words) of your selected insect family. These fact sheets must be typed on one page, and each factsheet must include specific headings, listed in the format and order as the sample fact sheet that you are given at the beginning of the semester. You will include two references at the end of the second and third fact sheets, and make copies of them to distribute to the entire class. Late fact sheets will be deducted five points per day.
- 5) **Insect collection:** You will prepare an insect collection according to guidelines in an attached handout. You will submit your collection twice. The collection grade will be based on the diversity of insects present, the number of correct identifications, the condition of the specimens, the quality of the labels, and the appearance of the collection.

Grading: Final grades will be based on the percentage of total points earned on the exams and assignments listed below. Letter-grade ranges will be as follows: A = 90-100%; B = 80-89%; C = 70-79%; D = 60-69%; and F = 59% or below.

The following points will count toward your grade:

3 midterm exams (100 points each)	300
1 comprehensive final exam	100
3 lecture quizzes (25 points each)	75
4 lab quizzes (10 points each)	40
3 fact sheets (25 points each)	75
1 insect collection (2 submit dates each worth 50 points)	100
Lab and field trip attendance	75
Total Possible Points	765

Dates to Remember:

Fact sheet 1	Sept 7	Lab Quiz 2	Nov 2
Quiz 1	Sept 9	Quiz 3	Nov 9
Exam 1	Sept 23	Factsheet 3	Nov 11
Lab Quiz 1	Sept 28	Exam 3	Nov 18
Fact sheet 2	Oct 5	Lab Quiz 3	Nov 23
Quiz 2	Oct 7	Lab Quiz 4	Dec 7
Exam 2	Oct 21	Insect collection 2	Dec 9
Insect collection 1	Oct 26	Final Exam	Dec 16

