

Biology 323: Entomology

Spring 2008

Sonoma State University

Instructor:	Nathan Rank (rank@sonoma.edu)
Office Hours:	M 1:00-2:00 pm & Tu 9:30-10:30 am (Darwin 223)
Laboratory instructor	Frederique Lavoipierre (lavoipie@sonoma.edu)
Lecture:	Monday and Wednesday 8:00-9:00 am (Darwin 107)
Laboratory:	Monday, 9:00-12:00 pm (Darwin 4)
Required Texts:	<u>The Insects: an outline of entomology</u> , 3 rd edition, 2004. 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 <u>Entomology Lab Manual</u> (2008), F. Lavoipierre and N. Rank. Available at Digitype at 1726 E. Cotati Ave. Cost \$10.80

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. We expect you to complete assigned readings before lecture/lab.

Office Hours: If you cannot make scheduled office hours, please arrange an appointment. 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. You will keep a journal of field trips and collecting information during the semester. Finally, you will prepare a collection of identified insect specimens.

Field trips: We plan to take four field trips this semester: 1) Fairfield Osborn Preserve, 2) the Laguna de Santa Rosa, 3) Pepperwood Preserve, northeast of Santa Rosa, and 4) the Galbreath Wildlands Preserve. Lectures will not occur on field trip days. All students are expected to participate in field trips. There will be no class during the regularly scheduled lecture hour on Friday, reducing lecture time by 15 hours over the semester. However, we must make up for this time by scheduling two all-day field trips outside class time. Attendance will be required, and we will schedule these trips early in the semester.

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 (posted after lecture), exam keys and scores, and links to relevant web sites. The page can be accessed through the SSU course page.

Policies about student behavior during lecture and examinations: On exam days, arrive on time, do not leave early, and turn your cell phone off before entering the classroom or laboratory. You may not use cell phones or other electronic device during an examination or quiz. In addition, you may not use the restroom or leave the room for any reason during an examination or quiz. Use the restroom before the test.

Important University policies you should be aware of: These include the add/drop policy; cheating and plagiarism policy, grade appeal procedures; and accommodations for students with disabilities (<http://www.sonoma.edu/uaffairs/policies/studentinfo.shtml>). Students caught violating the policy on plagiarism and cheating may receive a zero for the course and the violation will be recorded at the Student Affairs Office.

Assignments:

- 1) Examinations: There will be three midterms and one final exam, each worth 100 points. Exams will include short answer, fill-in, and short essay questions. Exams focus on material covered in both lecture and lab. Make-up exams will not be given without a documented excuse (e.g. signed note from doctor or documentation of death in the family). If you could not make it to an exam because of an emergency, notify me immediately. We 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 10 minutes to complete. There will be no make-up quizzes, even if you arrive to class on the same day.
- 3) Laboratory quizzes: There will be three laboratory quizzes held during the laboratory exercise. These quizzes will contain primarily short answer and fill-in questions about material covered in lab. Questions may be based on specimen identification, structure identification, and integration of concepts. There will be no make-up laboratory quizzes.
- 4) Field journal and laboratory manual: You will keep a journal recording your insect collecting expeditions throughout the semester. Use a waterproof small notebook (Rite in the Rain) or spiral binder (about 6 X 6 in), available at the SSU Bookstore, for your journal. Instructions for field journals are found in your Entomology Laboratory Manual. At the end of the semester, you will submit the journal and the completed Lab Manual to the instructor.
- 5) Insect collection: You will prepare an insect collection according to guidelines in a separate handout. You will submit your collection twice. We will show you how to collect insects early in the semester so that you can make significant progress on this assignment. The collection grade will be based on the diversity of habitats where you collect insects, the taxonomic diversity of specimens, number of correct identifications, condition of specimens, quality of the labels, and appearance of the collection.
- 6) Laboratory Attendance & Participation: You must participate in lab actively. We will take attendance during each lab session and award points for participation. You should plan on remaining in lab for the full 3-hour lab period. Directions for each exercise will be contained in handouts for this course. There will be no make-up laboratories.

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
3 laboratory quizzes (15 points each)	45
Field journal and laboratory manual	75
Insect collection (2 submit dates each worth 50 points)	100
Attendance at field trips to Pepperwood and Galbreath Preserve (50 pts each)	100
<u>Lab and field trip (FOP, Laguna) attendance and participation</u>	<u>105</u>
Total Possible Points	900