

ENY 4060 Entomology Lecture – Spring 2018

NOTE: This is a draft. The official syllabus is posted on the course Blackboard web site.

Meeting time/place: Tue & Thur, 9:30 – 10:45AM/ GL132

Instructor: Jeffrey D. Wells, Ph.D.

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Office hours: Tuesday/Thursday 2:00-4:00PM or by appointment

Prerequisites: General Biology I BSC 1010, General Biology II BSC 1011, or permission of the instructor.

Textbook: Gullan PJ, Cranston PS (2014) *The Insects. An Outline of Entomology*. Wiley Blackwell.

Grading

The curve will be based on the mean of the three highest point totals achieved by a student in the course.

≥90% of the highest total = A.

≥78% = B.

≥64% = C.

≥50% = D.

Mid-term Exams, max ≈ 300 pts

Final Exam, max ≈ 250 pts

Each student's lowest mid-term score will be dropped, i.e. not included in the final total.

If you miss a mid-term exam you will receive a zero, and presumably that will be the exam that is dropped. If you miss an additional exam, that zero will be included in your point total. There will be no extra credit.

Attendance

A student who is absent on exam day because of an authorized FIU or government activity will have the opportunity to take a make-up exam or turn in the assignment late. To be so excused you must inform the instructor by the earliest possible date. Consideration of other absences will be at the discretion of the instructor.

Don't miss or come late to class! The lectures will include important information that will not be posted on Blackboard and there will sometimes be a points-earning activity that cannot be made up later.

Disabled students

A student who submits the proper paperwork to the Disability Resource Center will be given any accommodation specified by DRC staff.

Lecture Topics

The *tentative* order of lecture topics and associated reading are shown here. You will get more

from the lectures, and probably earn a better grade, if you read the assigned passages prior to class. PDF versions of the lecture slides will be posted on Blackboard after class.

| DATE | TOPIC | READING |
|-------------|---|----------------|
| Tue 1/9 | Introduction to the course. The importance and diversity of insects and other arthropods. | Chapter 1 |
| Thur 1/11 | The cuticle and basic body plan. | pp. 27-35 |
| Tue 1/16 | Video <i>Invasion of the land</i> . | |
| Thu 1/18 | External anatomy: Head, thorax & abdomen. | pp. 35-55 |
| Tue 1/23 | Insect systematics and classification | pp. 190-225 |
| Thu 1/25 | The insect orders | pp. 493-525 |
| Tue 1/30 | The insect orders continued | |
| Thu 2/1 | Midterm Exam 1 | |
| Tue 2/6 | Insect fossils, evolution, and biogeography | Chapter 8 |
| Thu 2/8 | Internal anatomy: Muscles, nerves, and locomotion | pp. 57-66 |
| Tue 2/13 | Hormones, circulation, and respiration | pp. 66-77 |
| Thu 2/15 | Digestion, excretion, internal reproductive organs | pp. 77-93 |
| Tue 2/20 | Mechanoreception and sound production | pp. 96-105 |
| Thu 2/22 | Chemoreception and vision | pp. 107-122 |
| Tue 2/27 | Midterm exam 2 | |
| Thu 3/1 | Courtship and mating | pp. 126-144 |
| Tue 3/6 | Oviposition and its variations | pp. 144-153 |
| Thu 3/8 | Growth and development | pp. 157-174 |
| | SPRING BREAK | |
| Tue 3/20 | Survey of life histories | |
| Thu 3/22 | Insects and plants | Chapter 11 |
| Tue 3/27 | Agricultural entomology/Pest management | Chapter 16 |
| Thu 3/29 | Midterm Exam 3 | |
| Tue 4/3 | Insect Societies | Chapter 12 |
| Thu 4/5 | Predation and parasitism | Chapter 13 |
| Tue 4/10 | Insect defenses | Chapter 14 |
| Thu 4/12 | Midterm exam 4 | |
| Tue 4/17 | Medical and veterinary entomology | Chapter 15 |
| Thu 4/19 | Forensic entomology | |
| TBD | Final exam | |

Expected learning outcomes

By the end of the semester students should have a basic understanding of insect anatomy, physiology and evolution. Students will also have learned the role of insects in the living world, and how humans and insects interact in both harmful and beneficial ways.