

ARIZONA WESTERN COLLEGE
SYLLABUS

BIO 254 ENTOMOLOGY
Credit Hours: 4 Lec 3 Lab 3

General Education Course: G (Global Awareness)

PREREQUISITE: a 100 level Biology course

COURSE DESCRIPTION

An introduction to the science of entomology focusing on basic principles of systematics, morphology, physiology, behavior, ecology, economics, and the many health impacts of insects on humans. The laboratory includes the viewing of insect specimens and field trips to collect and study insects in their natural habitats. An insect collection is required.

1. COURSE GOALS

- 1.1 Introduce students to the diversity of insects in the environment.
- 1.2 Familiarize the students with the economic issues caused by insects including agriculture, medical and veterinary entomology.
- 1.3 Become familiar with evolutionary principles using insects as a model.
- 1.4 Increase awareness of how environment, behavior, competition, and resources are important in maintaining insect populations.
- 1.5 Utilize taxonomic keys to identify insects.
- 1.6 Acquaint students with insect orders and important families.
- 1.7 Become proficient with various morphological terms for insect anatomy.
- 1.8 Introduce students to the various insect life stages and life cycles.

2. OUTCOMES

Upon satisfactory completion of this course, students will be able to:

- 2.1 identify the Order of an insect specimen without using a key.
- 2.2 use a key to determine the Family of an insect.
- 2.3 identify the morphological characters unique to various Orders and Families of insects.
- 2.4 collect, mount and curate insects at a museum quality level.
- 2.5 identify and describe the life-history traits of important insects.
- 2.6 distinguish the various classes of the Phylum Arthropoda and be able to explain why certain organisms are in the various classes.

3. AWC GENERAL EDUCATION (GE) OUTCOMES

3.1 SCIENTIFIC LITERACY

- Distinguish between a scientific hypothesis and scientific theory
- Describe the scientific method as a process
- Utilize data to communicate and apply an understanding of scientific logic and/or quantitative reasoning
- Analyze an article in popular literature that pertains to science and interpret the findings in terms of public policy, personal experience, or daily life

3.2 CIVIC DISCOURSE

- Study of a scientific discipline that includes ecological and environmental interrelationships.

4. METHODS OF INSTRUCTION

- 4.1 Lectures
- 4.2 Laboratory exercises
- 4.3 Videos
- 4.4 Classroom demonstrations
- 4.5 Field trips
- 4.6 Field collections
- 4.7 Recitation and discussion

5. LEARNING ACTIVITIES

- 5.1 Students read assigned course material and attend lecture and laboratory meetings.
- 5.2 Demonstrations, audio-visual materials, videos, discussion and internet activities are utilized as appropriate.
- 5.3 Laboratory activities
- 5.4 Collecting trips
- 5.5 Identification of collected insects

6. EVALUATION

- 6.1 Exams and quizzes, encompassing material from both lecture and lab, will consist of vocabulary, short answer, essay, demonstrations of ability, and identifying organisms with and without keys.
- 6.2 Each student will collect insects and identify them
- 6.3 Field trips will be required and will comprise part of the final grade

7. STUDENT RESPONSIBILITIES

- 7.1 Under AWC Policy, students are expected to attend every session of class in which they are enrolled.
- 7.2 If a student is unable to attend the course or must drop the course for any reason, it will be the responsibility of the student to withdraw from the course. Students who are not attending as of the 45th day of the course may be withdrawn by the instructor. If the student does not withdraw from the course and fails to complete the requirements of the course, the student will receive a failing grade.
- 7.3 Americans with Disabilities Act Accommodations: Arizona Western College provides academic accommodations to students with disabilities through AccessABILITY Resource Services (ARS). ARS provides reasonable and appropriate accommodations to students who have documented disabilities. It is the responsibility of the student to make the ARS Coordinator aware of the need for accommodations in the classroom prior to the beginning of the semester. Students should follow up with their instructors once the semester begins. To make an appointment call the ARS front desk at (928) 344-7674 or ARS Coordinator at (928) 344-7629, in the College Community Center (3C) building, next to Advising.
- 7.4 Academic Integrity: Any student participating in acts of academic dishonesty—including, but not limited to, copying the work of other students, using unauthorized “crib notes”, plagiarism, stealing tests, or forging an instructor’s signature—will be subject to the procedures and consequences outlined in AWC’s Student Code of Conduct.
- 7.5 Texts and Notebooks: Students are required to obtain the class materials for the course.
- 7.6 Arizona Western College students are expected to attend every class session in which they are enrolled. To comply with Federal Financial Aid regulations (34 CFR 678.21), Arizona Western

College (AWC) has established an Attendance Verification process for "No Show" reporting during the first 10 days of each semester.

Students who have enrolled but have never attended class may be issued a "No Show" (NS) grade by the professor or instructor and receive a final grade of "NS" on their official academic record.

An NS grade may result in a student losing their federal financial aid.

For online classes, *student attendance in an online class is defined as the following* (FSA Handbook, 2012, 5-90):

- Submitting an academic assignment
- Taking an exam, an interactive tutorial or computer-assisted instruction
- Attending a study group that is assigned by the school
- Participating in an online discussion about academic matters
- Initiating contact with a faculty member to ask a question about the academic subject studied in the course