

ARIZONA WESTERN COLLEGE  
SYLLABUS

PLS 120 AGRICULTURAL ENTOMOLOGY

Credit Hours: 3 Lec: 3 Lab .5

PREREQUISITE: None

COURSE DESCRIPTION

An introduction to the science of entomology focusing on basic principles of systematics, morphology, physiology, behavior, ecology, and economics in relation to agriculture.; as well as, an introduction to agriculturally beneficial and harmful insects, control methods and the action mode of insecticides.

1. COURSE GOALS

- 1.1 Recognize the diversity of insects in the environment.
- 1.2 Identify economic issues with insects including agriculture, medical and veterinary entomology.
- 1.3 Describe evolutionary principles using insects as a model.
- 1.4 Explain how environment, behavior, competition, and resources are important in maintaining populations.
- 1.5 Use taxonomic keys to identify species.
- 1.6 Analyze the biological species definition and why it is often difficult to apply to insects.
- 1.7 Discuss the impacts that insects have on agriculture.
- 1.8 Identify integrated pest management control methods of insects.
- 1.9 Explain pesticide mode of actions and how they are utilized in agricultural pest management.

2. OUTCOMES

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

- 2.1 identify the 16 orders of insects relevant to agriculture.
- 2.2 classify the order of an insect specimen without using a key.
- 2.3 use a key to determine the family of an insect.
- 2.4 explain the morphological characters unique to various orders and families of insects.
- 2.5 collect, mount and curate insects.
- 2.6 identify and describe the life-history traits of agricultural economically important insects.
- 2.7 distinguish the various classes of the Phylum Arthropoda and be able to explain why certain organisms are in the various classes.
- 2.8 recognize agriculturally beneficial insects as well as insect pests.
- 2.9 explain the action mode of insecticides and recognize when to utilize each.

3. METHODS OF INSTRUCTION

- 3.1 Lecture and PowerPoint presentations
- 3.2 Classroom activities
- 3.3 Class discussions
- 3.4 Guest speakers, as appropriate

4. LEARNING ACTIVITIES

- 4.1 Reading assignments
- 4.2 Internet explorations and activities \ videos
- 4.3 Research analysis and critical thinking scenarios
- 4.4 Homework assignments

5. EVALUATION

- 5.1 Exams and quizzes
- 5.2 Participation

## 5.3 Written assignments

6. STUDENT RESPONSIBILITIES

- 6.1 Under AWC Policy, students are expected to attend every session of class in which they are enrolled.
- 6.2 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 will 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.
- 6.3 Americans with Disabilities Act Accommodations: Arizona Western College provides academic accommodations to students with disabilities through Access ABILITY 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.
- 6.4 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.
- 6.5 Texts and Notebooks: Students are required to obtain the class materials for the course.
- 6.6 Complete all assignments on the dates due.
- 6.7 Participate in class discussions and activities.
- 6.8 Take all quizzes and exams on date scheduled.
- 6.9 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 668.21), 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