

Discipline: Agriculture	Sub-discipline: Plant Science
General Course Title: <b>Economic Entomology</b>	Min. Units: <b>3 Semester</b>
Proposed Suffix: <b>L</b>	
<p>Course Description:  The study of the insects and mites of economic importance to Agriculture including morphology, taxonomy, identification, life cycles, hosts, habitat relationships, and control methods. Collection and labeling of specimens will be required. Laboratory required.</p>	
Required Prerequisites or Co-Requisites <sup>1</sup>	
Advisories/Recommended Preparation <sup>2</sup>	
<p>Course Objectives: <i>At the conclusion of this course, the student should be able to:</i></p> <ul style="list-style-type: none"> <li>• Identify insects and closely related plant and animal pests and pest damage.</li> <li>• Describe rules and regulations for pest control.</li> <li>• Operate pesticide equipment efficiently and safely.</li> <li>• Explain the economic aspects of beneficial and harmful insects.</li> <li>• Diagram and describe the anatomy, morphology, and physiology of a typical insect.</li> <li>• Classify insects into Orders.</li> <li>• Describe the danger levels of categories I, II, III, and IV pesticides.</li> <li>• Compare alternate methods of pest control.</li> <li>• Prepare and classify an insect collection.</li> <li>• Select possible methods and timing of control in a given circumstance.</li> <li>• Define common pest and control terminology.</li> <li>• Estimate the critical levels in an insect population.</li> <li>• Identify the common chemicals in use today.</li> <li>• Prepare field reports and other required forms in pest control.</li> <li>• Describe spraying and fumigation systems, formulations, and adjuncts currently in use.</li> <li>• Explain Integrated Pest Control (I.P.M.) principles.</li> </ul>	
<p>Course Content:</p> <ol style="list-style-type: none"> <li>1. The Place of the Insect in our Agricultural Economy</li> <li>2. Elementary Anatomy, Morphology, and Physiology of Insects</li> <li>3. Identification and Classification of Insects</li> <li>4. Field Specimens Collected and Identified</li> <li>5. Type of Damage to Agricultural Crops, Products, and Materials</li> <li>6. Principles of Control</li> <li>7. Methods of Control</li> <li>8. Selection and Application of Control Methods</li> </ol> <p><b>Economic Entomology (Content Continued)</b></p> <ol style="list-style-type: none"> <li>9. Insect Collections</li> </ol>	

<sup>1</sup> Prerequisite or co-requisite course need to be validated at the CCC level in accordance with Title 5 regulations; co-requisites for CCCs are the linked courses that must be taken at the same time as the primary or target course.

<sup>2</sup> Advisories or recommended preparation will not require validation but are recommendations to be considered by the student prior to enrolling.

- a. Collecting
- b. Preserving
- c. Mounting
- d. Identification

10. Regulations and Legal Aspects of Pest Control

11. Field Reports and Required Forms

12. Calibration of Pesticide Application Equipment

13. Integrated Pest Management (I.P.M.)

Laboratory Activities: Individual Laboratory Activities are designed to support course objectives.

Methods of Evaluation: Lecture  
 Comprehensive Quizzes and Exams  
 Written Critical Thinking Scenarios  
 Problem Analysis and Solution  
 Research and Term Papers

Methods of Evaluation: Laboratory  
 Laboratory Skill Validation by Observation  
 Laboratory Reports  
 Laboratory Research Projects and Reports  
 Laboratory Skill Practicum Exams

Typical Textbooks, Manuals, or Other Support Materials  
 Under Review

**Statewide Articulation: CPP-PLT 233/L, other universities as lower division elective.**

FDRG Lead Signature:

Date:

Mark E. Bender, PhD CSU Stanislaus

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**Internal Tracking Number**