PLS 253 Economic Entomology

Instructor: Ms. Erin Fortenberry
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Office Info: AG/IT 153 (903)886-5379
Class: TR 9:30-10:20 AG/IT 253
Lab: R 1:00-2:50
F 1:00-2:50

Course Description: (as in catalog) This course introduces students to the major orders of insects and other arthropods of economic importance with specific emphasis on those beneficial and harmful to agricultural and horticultural crops, livestock, pets, and food products. Control techniques using Integrated Pest Management will be included.

Student Learning Outcomes:
Skills:
- Identify arthropods to class by inspection
- Identify insects to order by inspection
- Identify unknown insects through the use of keys
- Collect, process, and store insects for study
Knowledge:
- Insect morphology and its use in identification of unknown specimens
- Insect anatomy and physiology to understand adaptation, behavior, and resistance mechanisms
- Insect life cycles and their importance in reproduction, pestilence and control
- Important arthropod classes, insect orders and major family descriptions
- Impact and control of major plant, animal, and human arthropod pests

Class Format:
The format for this course will vary from traditional lecture, group discussions, video presentations, online assignments and hands on lab activities.

Course Information:

Text (Recommended, Not Required)
Entomology and Pest Management, 6th Edition
Pedigo, Larry; Rice, Marlin

Text (Not Required)
Borror and DeLong's Introduction to the Study of Insects, 7th Edition
Norman F. Johnson; Charles A. Triplehorn
Textbook ISBN-10: 0-03-096835-6

The instructor reserves the right to modify this syllabus during the semester, if needed. The instructor also reserves the right to extend credit for alternative assignments, projects, or presentations.
Important Dates
Last day to drop with 100% refund, Feb. 5th
Last day for Graduation Application, Feb 6th
Spring Break, March 16th - 20th
Last day to drop with a Q, April 24th
Final Exam Week, May 11th - 15th

Grading Policy:
Exams (3 @ 100 points each)  300
Cumulative Final Exam  100
Insect Collection  150
Group Insect Fact Sheet  150
Attendance  100
Quizzes  100
Participation  100

Grade Distribution:
A  900-1000
B  800-899
C  700-799
D  600-699
F  <600

Exams
Exams will be short answer, fill in the blank, matching and short essay. There will be 3 exams during the semester and one cumulative final exam. There will not be make-up exams for unexcused absences. If you have an excused absence, I must be made aware of this before exam day to schedule the make-up.

Final Exam
Thursday, May 14th 8:00-10:00AM
The final exam is cumulative. The final exam can be doubled to replace the lowest test grade of the semester, as long as it was not a missed exam due to an unexcused absence.

Insect Collection
A detailed hand out will be given to describe the specifics of what insects & arthropods should be collected for this assignment. There will be a minimum of 20 insects & 5 arthropods in the collection. You may have to collect more than 25 specimens to meet all requirements.

Group Insect Fact Sheet
Students will be broken into groups dependent upon major and work with like majors for this group project. A 1-2 page Fact Sheet will be made informing the general public about an insect that is

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Course Content:
Lecture Week
1/20  Introduction to Insects
       Arthropod Classes
1/27  Insect morphology
2/3   Insect anatomy
2/10  Insect life cycles, reproduction, and development
2/17  EXAM I
       Insect Classification
2/24  Ametabola: Order Thysanura
       Hemimetabola: Orders Ephemeroptera, Odonata
3/3   Hemimetabola: Orders Orthoptera, Blattodea, Isoptera
3/10  Hemimetabola: Orders Hemiptera, Suborders Heteroptera, Homoptera
       EXAM II
3/17  SPRING BREAK
3/24  Holometabola: Orders Neuroptera, Coleoptera, Lepidoptera
3/31  Holometabola: Orders Diptera, Siphonaptera, Hymenoptera
4/7   Integrated Pest Management: Monitoring, Scouting, Decision making, Biological Controls
4/14  April 7th CDE’s
       EXAM III
4/21  Insecticide application, classes, mode of action, toxicity, and environmental impact
4/28  Pesticide certifications and legal requirements in Texas
5/5   Wrap Up & Insect Collections DUE
5/12  Final Exam Week
*Subject to change based upon speed material is absorbed by students

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