

22079

## **PLS 2313L Economic Entomology Lab**

COURSE SYLLABUS: Spring 2026

T 1:00-2:50 Science, McFarland Bldg. (STC) Rm 211

Note: Lab **WILL** be held January 13th 2026, the first week of the semester.

Location Note: Some labs will be held at the Plant Science Center, located at 2069 CR 4320 Campbell, TX 75422 (3.5 miles south of Commerce on Hwy 24) Campus Shuttle is available, parking by the classroom is limited so park by the Vet Science classroom or high tunnel.

### **INSTRUCTOR INFORMATION**

**Instructor:** David R. Drake Ph.D. Adjunct Professor and Extension Program Specialist Integrated Pest Management (IPM) Texas A&M AgriLife Extension

**Lab Assistant:** TBA

**Office Location:** Agronomy Lab at the Plant Science Center - 2033 CR 4320 Campbell, TX 75422 (3.5 miles south of Commerce on Hwy 24)

**Office Hours:** TBA or by appointment

**Office Phone:** 903-468-3295

**University Email Address:** [drdrake@ag.tamu.edu](mailto:drdrake@ag.tamu.edu) or David.Drake@etamu.edu

### **COURSE INFORMATION**

#### ***Textbook(s) Required***

*Text*

Entomology and Pest Management, 7<sup>th</sup> Edition

Pedigo, Larry; Rice, Marlin; Krell, Rayda

Textbook ISBN 978-1-4786-3992-3

(older editions are acceptable)

#### ***Additional 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

#### ***Optional Texts and/or Materials***

Another insect identification manual, key, software or text of choice.

*The syllabus/schedule are subject to change.*

## ***Course Description***

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. The Lab is concurrent to the course and serves to compliment the lectures with hands on learning.

### Student Learning Outcomes

#### Skills:

Identify arthropods to class by inspection

Identify insects to order by inspection

Collect, process, and store insects for study

Identify locally important insects and arthropods by inspection and apply IPM control or conservation practices

#### 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

## ***COURSE REQUIREMENTS***

### ***Insect Collection***

A detailed hand out will be given in lab 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.

Failure to submit an insect collection will result in failing grade for the course.

### ***Insect Fact Sheet***

Students will be assigned an insect/arthropod to produce a fact sheet on dependent upon major. A 1 page Fact Sheet will be made informing the general public about an insect/arthropod that is pertinent to your major. The insect will be assigned, unless the student presents the instructor with an insect idea they would like to cover instead and it is approved. Students will prepare a 5 minute presentation about their fact sheet to be presented in lab near the end of the semester.

### ***Attendance***

Attendance will be taken at the beginning of class and lab. Attendance points will be deducted for each unexcused absence. Excused absences should be discussed with the instructor before the missed class period. During this discussion plans will be made to schedule any allowed makeup work.

### ***Quizzes***

Quizzes will be given during class and lab. Quiz grades will be averaged and totaled to 100 points at the end of the semester. There will be an identification quiz at the start of every lab.

### ***Participation***

Participation grade will be based upon presence, effective listening, being active in group work and participating in any class discussion.

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# GRADING

## Grading Policy:

Lecture and Lab grades are combined for a single grade

Lecture Exams 400

Insect Collection 250

Insect Fact Sheet 150

Attendance and Lab Participation 50

Quizzes 75

Lab ID and Exercise Final 75

## Grade Distribution:

A 900-1000

B 800-899

C 700-799

D 600-699

F <600

Grades are based on the following scale:

A = 90%-100%

B = 80%-89%

C = 70%-79%

D = 60%-69%

F = 59% or Below

## COURSE OUTLINE / CALENDAR

Week 1	Intro to lab, Lab Safety, ID pre-test
Week 2	Household and Greenhouse Pests
Week 3	Insect Collection Equipment - Insect Anatomy
Week 4	Insect Anatomy
Week 5	Insect Identification
Week 6	Structural Pests
Week 7	Horticultural and Greenhouse Pests
Week 8	Insect damage thresholds and IPM
Week 9	Fact Sheet Presentations
Week 10	Fact Sheet Presentations
Week 11	Animal Pests

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Week 12 Agricultural Field Pests  
Week 13 IPM  
Week 14 Insect Collection and Identification Lab Final

## ***University Specific Procedures***

### ***Student Conduct***

All students enrolled at the University shall follow the tenets of common decency and acceptable behavior conducive to a positive learning environment. The Code of Student Conduct is described in detail in the [Student Guidebook](#).

<http://www.tamuc.edu/admissions/registrar/documents/studentGuidebook.pdf>

Students should also consult the Rules of Netiquette for more information regarding how to interact with students in an online forum: [Netiquette](#)

<http://www.albion.com/netiquette/corerules.html>

### ***TAMUC Attendance***

For more information about the attendance policy please visit the [Attendance](#) webpage and [Procedure 13.99.99.R0.01](#).

<http://www.tamuc.edu/admissions/registrar/generalInformation/attendance.aspx>

<http://www.tamuc.edu/aboutUs/policiesProceduresStandardsStatements/rulesProcedures/13students/academic/13.99.99.R0.01.pdf>

### ***Academic Integrity***

Students at Texas A&M University-Commerce are expected to maintain high standards of integrity and honesty in all of their scholastic work. For more details and the definition of academic dishonesty see the following procedures:

[Undergraduate Academic Dishonesty 13.99.99.R0.03](#)

<http://www.tamuc.edu/aboutUs/policiesProceduresStandardsStatements/rulesProcedures/13students/undergraduates/13.99.99.R0.03UndergraduateAcademicDishonesty.pdf>

[Graduate Student Academic Dishonesty 13.99.99.R0.10](#)

<http://www.tamuc.edu/aboutUs/policiesProceduresStandardsStatements/rulesProcedures/13students/graduate/13.99.99.R0.10GraduateStudentAcademicDishonesty.pdf>

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## **ADA Statement**

### **Students with Disabilities**

The Americans with Disabilities Act (ADA) is a federal anti-discrimination statute that provides comprehensive civil rights protection for persons with disabilities. Among other things, this legislation requires that all students with disabilities be guaranteed a learning environment that provides for reasonable accommodation of their disabilities. If you have a disability requiring an accommodation, please contact:

### **Office of Student Disability Resources and Services**

Texas A&M University-Commerce

Gee Library- Room 162

Phone (903) 886-5150 or (903) 886-5835

Fax (903) 468-8148

Email: [Rebecca.Tuerk@tamuc.edu](mailto:Rebecca.Tuerk@tamuc.edu)

Website: [Office of Student Disability Resources and Services](#)

<http://www.tamuc.edu/campusLife/campusServices/studentDisabilityResourcesAndServices/>

### **Nondiscrimination Notice**

Texas A&M University-Commerce will comply in the classroom, and in online courses, with all federal and state laws prohibiting discrimination and related retaliation on the basis of race, color, religion, sex, national origin, disability, age, genetic information or veteran status. Further, an environment free from discrimination on the basis of sexual orientation, gender identity, or gender expression will be maintained.

### **Campus Concealed Carry Statement**

Texas Senate Bill - 11 (Government Code 411.2031, et al.) authorizes the carrying of a concealed handgun in Texas A&M University-Commerce buildings only by persons who have been issued and are in possession of a Texas License to Carry a Handgun. Qualified law enforcement officers or those who are otherwise authorized to carry a concealed handgun in the State of Texas are also permitted to do so. Pursuant to Penal Code (PC) 46.035 and A&M-Commerce Rule 34.06.02.R1, license holders may not carry a concealed handgun in restricted locations.

For a list of locations, please refer to the [Carrying Concealed Handguns On Campus](#) document and/or consult your event organizer.

Web url:

<http://www.tamuc.edu/aboutUs/policiesProceduresStandardsStatements/rulesProcedures/34SafetyOfEmployeesAndStudents/34.06.02.R1.pdf>

Pursuant to PC 46.035, the open carrying of handguns is prohibited on all A&M-Commerce campuses. Report violations to the University Police Department at 903-886-5868 or 9-1-1.

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## PLS 2313L Lab Safety

1. The entomology lab, arthropods, insects, and the associated environments have potential risks to human safety and comfort. The risks can be greatly reduced by training, dressing appropriately, using personal protective equipment, following directions, and acting appropriately.
2. Please locate the following items for your appropriate lab space.
  - a. Exits,
  - b. Restroom,
  - c. eyewash,
  - d. first aid kit,
  - e. fire extinguisher, and
  - f. other safety items.
3. Possible dangers of the entomology lab include but are not limited to:
  - a. Live or dead insects/arthropods that are visually undesirable, foul smelling, exude body fluids and wastes, sting and/or bite
  - b. Exposure to insect/arthropod killing and preserving chemicals
  - c. Insect/arthropod mounting pins and other insect dissection tools (sharps)
  - d. The outdoor environment with weather, water, natural terrain, animal and plant life.
  - e. Dirty, cluttered, dusty, foul smelling, decaying, dark, or physically restrictive areas with insects/arthropods
4. Training and personal protective equipment will be available during lab and students must dress appropriately for the planned lab activities.
5. On some labs/activities students may work as teams for to accommodate student comfort level with insects/arthropods.
6. Any inappropriate behavior, accident, or incident should be immediately reported to the instructor so appropriate actions administered and the incident documented.

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