



**PLS 329 Soil Science Lab
Course Syllabus: Fall 2025**

Instructor: Derald Harp, Ph.D., Professor - Horticulture

Office Location: PSC 103

Office Hours: M 9 - 11 am, 2-3 pm, W 9 - 11 am, R 1 -2 pm

Office Phone: (903) 886-5202

University Email Address: Derald.Harp@etamu.edu

COURSE INFORMATION

Materials – Textbooks, Readings, Supplementary Readings:

Textbook(s) Required: Soil Science Laboratory Manual, 4th ed. Derald A. Harp, Curtis Jones, and Rocky Lemus

Course Description:

Laboratory techniques to determine soil physical and chemical properties related to plant growth.

Prerequisites: PLS 1307 or 1315, and Chem 1305 or 1311

Student Learning Outcomes:

Students will be able:

1. To use laboratory techniques to determine soil physical properties, including texture, bulk density, particle density, and porosity;
2. To use laboratory techniques to determine soil chemical properties, including pH, electrical conductivity, cation exchange capacity, and macronutrient levels;
3. To use soil surveys and laboratory techniques to identify characteristics of an unknown soil sample.

COURSE SCHEDULE

Course Outline

Aug 25	Introduction / Lab Safety
Sept 1	No Lab. Labor Day Holiday.
Sept 8	Soil Sample Collection / Web Soil Survey
Sept 15	Bulk Density
Sept 22	Particle Density
Sept 29	Soil Texture
Oct 6	Soil Water
Oct 13	Soil Organic Matter
Oct 20	Soil pH
Oct 27	Soil EC and CEC
Nov 3	Soil Nutrition (N)
Nov 10	Soil Nutrition (P & K)
Nov 17	Open Lab
Nov 24	Lab closed. Thanksgiving Holiday.
Dec 1	Presentations

Grading

1. Lab Reports	500 points
2. Student Project	200 points
3. Grade Assignment	630+ = A
	560 – 629 = B
	490 – 559 = C
	420 – 489 = D
	below 420 = F

COURSE AND UNIVERSITY PROCEDURES/POLICIES

Course Specific Procedures:

All students enrolled at the University shall follow the tenets of common decency and acceptable behavior conducive to a positive learning environment. Students are expected to respect the rights of others in the class. Cell phones and other electronic equipment should be turned off prior to the beginning of class. Use of these items during class time, or any other unwarranted classroom disruption, will result in your immediate excusal from class for the remainder of the period.

Because this is a lab course, no food or drinks are permitted in the lab. Please finish any meals before class begins. The use of tobacco products during class time is strictly prohibited.

Cheating of any kind will not be tolerated. Copying of others' work, use of disallowed material on exams, plagiarism in assignments, or cheating in any other form as defined by the instructor will result in a grade of zero for that assignment. Multiple infractions will result in a grade of 'F' for the course. No electronic equipment, except calculators, will be allowed during exams. Violation of this will result in an immediate grade of 'O' for the exam.

ADA Statement

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 132
Phone (903) 886-5150 or (903) 886-5835
Fax (903) 468-8148
StudentDisabilityServices@tamuc.edu
[Student Disability Resources & Services](#)

"Campus Carry"

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 (<http://www.tamuc.edu/aboutUs/policiesProceduresStandardsStatements/rulesProcedures/34SafetyOfEmployeesAndStudents/34.06.02.R1.pdf>) and/or consult your event organizer). 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.