



PLS 309 Soil Science

COURSE SYLLABUS: Fall 2024

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

Office Location: AgIT 155, PSC 103

Office Hours: @PSC 103 MW 10 – 11 am, M 3 – 4 pm
@AgIT 155 MW 8 – 9 am, TR 11 am - Noon

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COURSE INFORMATION

Materials – Textbooks, Readings, Supplementary Readings

Textbook: **Required: The Nature and Properties of Soils, 15th Ed.--** Brady and Weil
Prentice Hall (14th edition is acceptable)

Course Description

Origin, formation, fertility and management of soils. Prerequisites PLS 1307 or 1315 and Chem 1305 or 1311.

Student Learning Outcomes

1. Students will be able to describe the various mineral and organic components of soils, including how changes in various quantities affect soil physical and chemical properties.
2. Students will understand pedogenesis and how different parent materials create soils with varying properties.
3. Students will understand water retention and movement in soils, especially as it relates to plant water availability.
4. Students will develop a basic understanding of soil chemistry, including pH and CEC, especially how they relate to nutrient availability and, when feasible, adjustments, such as liming, that can improve conditions for plant growth.

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5. Students will develop an introductory understanding of soil taxonomy, including the favorable traits and limitations of the various soil orders.

GRADING

500 points	Exams
200 points	Assignments
200 points	Final Exam
A	810+
B	720-809
C	630-719
D	540-629
F	<540

COURSE OUTLINE / CALENDAR

Exam 1	September 27, 2024	Introduction (Ch1) Soil Formation, Weathering, Genetic Horizons (C 2), Erosion (Ch 17)
Exam 2	October 23, 2024	Soil Texture, Bulk Density, Particle Density (Ch 1 & 4) Soil Air and Porosity (Ch. 1 & 7)
Exam 3	November 15, 2024	Soil Water, Saturation, Field Capacity, Permanent Wilting Point, Water Movement (Ch. 1, 5, & 6) pH (Ch. 9) Cation Exchange Capacity, Fertilizers (Ch. 8)
Exam 4	December 4, 2024	Soil Classification and Taxonomy (Ch 3)
Final	December 11, 2024 8:00 – 10:00 am	Comprehensive

TECHNOLOGY REQUIREMENTS

LMS

All course sections offered by Texas A&M University-Commerce have a corresponding course shell in the myLeo Online Learning Management System (LMS). Below are technical requirements

LMS Requirements:

<https://community.brightspace.com/s/article/Brightspace-Platform-Requirements>

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LMS Browser Support:

https://documentation.brightspace.com/EN/brightspace/requirements/all/browser_support.htm

ACCESS AND NAVIGATION

You will need your campus-wide ID (CWID) and password to log into the course. If you do not know your CWID or have forgotten your password, contact the Center for IT Excellence (CITE) at 903.468.6000 or helpdesk@tamuc.edu.

Note: Personal computer and internet connection problems do not excuse the requirement to complete all course work in a timely and satisfactory manner. Each student needs to have a backup method to deal with these inevitable problems. These methods might include the availability of a backup PC at home or work, the temporary use of a computer at a friend's home, the local library, office service companies, Starbucks, a TAMUC campus open computer lab, etc.

COMMUNICATION AND SUPPORT

If you have any questions or are having difficulties with the course material, please contact your Instructor.

Technical Support

If you are having technical difficulty with any part of Brightspace, please contact Brightspace Technical Support at 1-877-325-7778. Other support options can be found here:

<https://community.brightspace.com/support/s/contactsupport>

COURSE AND UNIVERSITY PROCEDURES/POLICIES

Course Specific Procedures/Policies

Cheating of any kind will not be tolerated. Copying of others' work, use of disallowed material on exams, plagiarism in assignments, use of AI software to complete 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 and possible expulsion.

Assignments are due as posted in the Course Schedule. Late penalties are assessed as follows:

- Assignments will be graded on the Monday following submission. Assignments not submitted will be recorded as a zero.
- Assignments are not accepted via email.
- The student must contact the professor immediately with a valid excuse for assignments not submitted to receive full credit. Valid excuses include severe illness, natural disasters, and

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unforeseen circumstances that prevent timely submission. Unforeseen circumstances will be evaluated on a case-by-case basis.

- 1 day late - 10% penalty
- 2 days to 1 week late - 25% penalty
- More than 1 week late - 50% penalty
- No work other than the Final Exam will be accepted after July 5

Syllabus Change Policy

The syllabus is a guide. Circumstances and events, such as student progress, may make it necessary for the instructor to modify the syllabus during the semester. Any changes made to the syllabus will be announced in advance.

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/oneStopShop/undergraduateAdmissions/studentGuidebook.aspx>

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

<https://www.britannica.com/topic/netiquette>

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>

Students with Disabilities-- 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

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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: studentdisabilityservices@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.

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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