



PLS 309 Soil Science

COURSE SYLLABUS: Summer I 2026

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

The syllabus/schedule are subject to change.

GRADING

| | |
|------------|------------------|
| 500 points | Exams (5) |
| 200 points | Assignments (10) |
| 100 points | Discussions (10) |
| 200 points | Final Exam |
| A | 900+ |
| B | 800-899 |
| C | 700-799 |
| D | 600-699 |
| F | <600 |

COURSE OUTLINE / CALENDAR

Week 1

Introduction

- Assignment 1 / June 1
- Discussion 1 / June 1

Soil Texture

- Assignment 2 / June 3
- Discussion 2 / June 3
- Exam 1 / June

Week 2

Bulk Density

- Assignment 3 / June 7 - 10
- Discussion 3 / June 7 - 12

Pedogenesis

- Assignment 4 / June 7 – 12
- Discussion 4 / June 7 - 12
- Exam 2 / June 12 - 14

Week 3

Soil Water

- Assignment 5 / June 14 - 17
- Discussion 5 / June 14 - 19

Soil pH

- Assignment 6 / June 14 – 19
- Discussion 6 / June 14 - 19
- Exam 3 / June 19 - 21

Week 4

Soil CEC

- Assignment 7 / June 21 - 24
- Discussion 7 / June 21 - 26

Liming and Fertilizers

- Assignment 8 / June 21 - 26
- Discussion 8 / June 21 - 26
- Exam 4 / June 26 - 28

Week 5

Soil Surveys

- Assignment 9 / June 28 - July 1
- Discussion 9 / June 28 - July 1

Soil Taxonomy

- Assignment 10 / June 28 – July 1
- Discussion 10 / June 28 - July 1
- Exam 5 / June 28 - July 1

Final Exam

- July 2

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TECHNOLOGY REQUIREMENTS

LMS

All course sections offered by East Texas A&M University 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>

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>

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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 day 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 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
- No work will be accepted one week past the due date.

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. Use of outside sources such as Chegg, Quizlet, Artificial Intelligence, or other online source that provides answers to course questions will be considered cheating and result in a grade of '0' for the assignment. Repeated instances will result in a grade of 'F' for the course, and the student will be reported to the university for Academic Dishonesty.

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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 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.

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