

SOIL 210 INTRODUCTION TO SOIL SCIENCE
COURSE SYLLABUS

Class Numbers #
(12724 /13567/13941/09284) - F22 - MERGE

Fall 2022
(22 August—16 Dec 2022)

INSTRUCTOR:

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LRSC North Campus

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Office: 701-662-1693

Office Hours: Mon, Wed, 2:00 PM- 3:00 PM or by appointment

COURSE DESCRIPTION: Introduction to basic principles of soil science and the study of soil properties such as physical, chemical, and biological and how each relates to the crop production resources and the environment.

CREDIT HOURS: 3 Credits (includes laboratory)

CLASS HOURS: Lecture and Laboratory Online Based.

PREREQUISITES: None.

REQUIRED TEXTBOOK: Plaster, Edward J. 2014. Soil Science and Management. 6th Edition. Delmar, Cengage Learning.

MATERIALS OF INSTRUCTION: Textbook and Website

LOCATION: LRSC Online Campus/Blackboard System.

NOTE: It is the responsibility of the student to read, understand and apply the information available in the Lake Region State College 2019- 2021 catalog and this syllabus.

General Education Objectives

I.3 Apply Knowledge to the Real World

I.6 Values and Ethics

II.3 Problem Solving Skills

III.2 Understand World Events

V.2 Environment

V.4 Scientific Method/Inquiry

VII.1 Value of Lifelong Learning

VII.2 Adapt to the future

TRADE AND TECHNICAL DIVISION MISSION STATEMENT:

(Lake Region State College Catalog 2017-2019, p. 41): The Trade and Technical Division offers various specialized programs. The division frequently assesses industry trends and standards and alters curricula to ensure the quality of its programs. It is the mission of the Trade and Technical Division to provide students with current knowledge and training necessary for immediate entry into various specialties within the job market.

COURSE OBJECTIVES: This course introduces basic principles of soil science. Emphasis is placed on managing soil in a sustainable manner to maximize production and profitability of crops while maintaining and improving soil quality for future generations.

STUDENT OUTCOMES/COMPETENCIES:

Upon completion of this course, students will be able to:

- Explain the functions of soil
- Understand soil components, soil forming factors, and basic taxonomy of soils.
- Understand physical properties of soil related to structure, texture, porosity, and water holding capacity of soils
- Understand basic chemical properties of soil
- Understand biological properties of soil, and types and functions of soil organisms and their effects on soil quality
- Understand land use management and soil conservation in modern crop production
- Describe the effects of erosion, water management, and crop residue on the sustainability of soils for crop production.

MAJOR UNITS OF INSTRUCTION:

- Chapter 1. The Importance of Soil
- Chapter 2. Soil Origin and Development
- Chapter 3. Soil Classification and Survey
- Chapter 4. Physical Properties of Soil
- Chapter 5. Life in the Soil
- Chapter 6. Organic Matter
- Chapter 7. Soil Water
- Chapter 8. Water Conservation
- Chapter 9. Drainage and Irrigation
- Chapter 16. Tillage and Cropping Systems
- Chapter 18. Soil Conservation
- Chapter 19. Urban Soils
- Chapter 20. Government Agencies & Programs

Assessment Tools			Grading Scale:
Exam I	100 pts		A =90-100%
Exam II	100 pts		B =80-90%
Exam III	100 pts		C =70-80%
Final Exam	200 pts		D =60-70%
Quizzes	100 pts		F =0-60%
Assignments	100 pts		
Labs	400 pts	8 labs will be given	
Total Points	1100 pts		

Additional labs will be given based on the students' needs and interests.

ATTENDANCE: Regular attendance and participation are important parts of this course. Participation in class discussions is required.

ACADEMIC HONESTY: Plagiarism takes the words and/or ideas of another and uses them as your own without giving appropriate credit to the original source. Any clear violations of these standards and others such as cheating, or violating copyright laws, are handled promptly, firmly, privately, and fairly by the instructor. Other examples of scholastic dishonesty and the grievance process can be found in the LRSC Student Catalogue.

Students who either intentionally or unintentionally practice plagiarism will receive a grade of zero for that assignment. Additionally, instructors have the ability to have students submit assignments through TurnItIn via Pearson Learning Studio or the website [<http://www.turnitin.com>]. The website will provide plagiarism check of similar content, citations and sources, provide feedback on grammar, spelling and word usage and critiques on writing from Pearson professional tutors.

1st Offense: Since it is impossible to evaluate a plagiarized paper, no credit can be given. At the discretion of the instructor, a student may also be:

Assigned a reduced grade for the course

Allowed to rewrite and submit the assignment for credit

2nd Offense: Dismissed from the class with a failing grade

Please go to the following site for resource information on Plagiarism:

http://www.academicplagiarism.com/?page_id=109

Use the following sites to check your papers for plagiarism:

<http://www.plagtracker.com/>

<http://www.dustball.com/cs/plagiarism.checker/>

If you are caught copying another person's assignment, quiz, or test or knowingly allow a classmate to copy your work, you will be given an automatic grade of 0 on that assignment.

Students are expected to adhere to the Student Code of Conduct as listed in the Lake Region State College 2019-2021 catalog pages 38-40. Scholastic dishonesty is addressed in the Lake Region State College catalog on page 38.

ACCOMODATIONS: If you need special accommodations because of a disability, I will gladly work to meet your needs. Please let me know if you need any special accommodations of the curriculum, instruction, or assessments of this course to enable you to participate fully. I will keep any information you share with me confidential.

**Tentative Class Schedule
Fall 2022**

Dates	Chapters	Assignments
August 22-26	Review of Some Basic Science	Read the Appendix 1 and review the Some Basic Science Chapter on Pages 464-472
August 29-31	Chapter 1 The Importance of Soil: Life in Soil Series:	Watch Lecture Complete Quiz Complete & Submit all the Chapter 1 related assignments by midnight on Aug 31st, 2022
September 1-2	Chapter 2 Soil Origin and Development	Watch Lecture Complete Quiz Complete Lab 1 (See Blackboard Folder) Complete & Submit all the Chapter 2 related assignments by midnight on Sept 2nd, 2022
September 6-9	Chapter 3 Soil Classification & Survey	Watch Lecture Complete Quiz Complete & Submit all the Chapter 3 related assignments by midnight on Sept 9th, 2022
September 12-16	Exam 1 Review Time: Exam 1 will cover Chapters 1-3	Exam 1 Complete Exam 1 by Midnight on the last day of Sept 16th, 2022
September 19-23	Chapter 4 Physical Properties of Soil	Watch Lecture Complete Quiz Complete Lab 2 (See Blackboard Folder) Complete & Submit all the Chapter 4 related assignments by midnight on Sept 23rd, 2022
September 26-30	Chapter 5 Life in the Soil	Watch Lecture Complete Quiz Complete & Submit all the Chapter 5 related assignments by midnight on Sept 30th, 2022
October 3-4	Chapter 6 Organic Matter	Watch Lecture Complete Quiz Complete Lab 3 (See Blackboard Folder) Complete & Submit all the Chapter 6 related assignments by midnight on Oct 3rd, 2022
October 10-14	Exam 2 Review Time: Exam 2 will cover Chapters 4-6	Exam 2 Complete Exam 2 by Midnight on the last day of Oct 14th, 2022
October 17-21	Chapter 7 Soil Water	Watch Lecture Complete Quiz Complete Lab 4 (See Blackboard Folder) Complete & Submit all the Chapter 7 related assignments by midnight on

		Oct 21st, 2022
October 24-28	Chapter 8 Water Conservation	Watch Lecture Complete Quiz Complete Lab 5 (See Blackboard Folder) Complete & Submit all the Chapter 8 related assignments by midnight on Oct 28th, 2022
Nov 1-4	Chapter 9 Drainage & Irrigation	Watch Lecture Complete Quiz Complete & Submit all the Chapter 9 related assignments by midnight on Nov 1st, 2022
Nov 7-10	Exam 3 Review Time: Exam 3 will cover Chapters 7-9	Exam 3 Complete Exam 2 by Midnight on the last day of Nov 10th, 2022
Nov 14-18	Chapter 13 Tillage & Cropping Systems	Watch Lecture Complete Quiz Complete Lab 6 (See Blackboard Folder) Complete & Submit all the Chapter 13 related assignments by midnight on Nov 18th, 2022
Nov 21-22	Chapter 16 Tillage & Cropping Systems	Watch Lecture Complete Quiz Complete & Submit all the Chapter 16 related assignments by midnight on Nov 22nd, 2022
Nov 28-30	Chapter 18 Soil Conservation	Watch Lecture Complete Quiz Complete Lab 7 (See Blackboard Folder) Complete & Submit all the Chapter 18 related assignments by midnight on Nov 28th, 2022
Dec 1-2	Chapter 19 Urban Soils Chapter 20 Government Agencies & Programs	Watch Lecture Complete Quiz Complete & Submit all the Chapter 20 related assignments by midnight on Dec 2nd, 2022
Dec 5-8	Individual Review Period	Complete Lab 8 (See Blackboard Folder) Complete & Submit all the course related assignments by midnight on Dec 8th, 2022
Dec 12-16	Final Exam Time Final Exam is Comprehensive	Final Exam must be completed by midnight on Dec 12th 2022

Schedule and assignments are subject to change. Additional labs may be given after discussing with students.