DAKOTA COLLEGE AT BOTTINEAU

COURSE SYLLABUS

Course Prefix/Number/Title: Introduction to Soil Science - SOIL 210 (online)

Number of Credits: 3

Course Description: Physical, chemical, and biological properties of soils related to use, conservation, and plant growth

Pre-/Co-requisites: None.

Course Objectives: By the end of this course, students will be able to:

1.) Understand the physical and chemical nature of soils
2.) Explain how to manage soil in a sustainable manner to maximize production and profitability
3.) Apply conservation methods when working in agriculture
4.) Explain and demonstrate proper soil sampling and testing techniques
5.) Understand how pivotal soil is to our local economy and ecosystems

Instructor: Michelle Cauley

Office: Molberg 22 **Office Hours**: MWF 10:00 a.m. – 12:00 p.m.

Phone: 701-228-5498 **Email:** Michelle.cauley@dakotacollege.edu

Lecture/Lab Schedule: N/A

Textbook(s): Plaster, Edward J. 2014. Soil Science and Management. 6th Edition. Delmar, Cengage Learning.

Course Requirements: This is an introductory course that allows for building a foundation in many learning areas. Students are expected to read the text and come to class prepared to listen, participate in lectures, activities, and labs. Attendance is crucial for connecting learning and clearing up questions. Points in this class will come from the following assessment tools:

Assessment Tool:	Percentage of your Grade:		Grading Scale
Quizzes	15%		A = 90 – 100%
Weekly Labs	30%		B = 80 – 89.9%
Assignments / Homework	25%		C = 70 – 79.9%
Unit Tests / Final Exam	20%		D = 60 – 69.9%
Final Soils Presentation	10%		F = 0 – 59.9%

Quizzes: There will be a series of 12 quizzes throughout the semester from various chapters. These will be open book/note quizzes designed to identify gaps in the lectures and learning. The two lowest scores will be dropped from your grade. For a score to be dropped, the quiz still must be attempted. No zeroes will be dropped if the quiz hasn't been attempted.

Labs: Labs are still very much a part of this online course. Be prepared to be outside and actively involved in scientific research and learning. All students should purchase a **Soil Testing Kit** at the beginning of the semester for work in their final lab presentation and for other labs. More information on this will be posted in Weeks 2-3, but it is easily findable online.

Assignments / Homework: There will be a combination of assigned readings, in-class worksheets, and traditional assignments. Homework must be submitted on time to receive full credit. Late homework will be accepted with a 10% deduction per week late.

Unit Tests and Final Exam: There will be three unit-based tests and one final exam throughout the semester. These will be available to be completed online through Blackboard. Unit Tests and your Final Exam will be open for one week (seven days) and you will have unlimited time to take them within the testing window.

Tentative Course Outline:

Week	Over Arching Topics / Chapters	Exam / Quiz Schedule
January 13 – 17	Chapter 1 – Importance of Soil	Syllabus Quiz
January 20 – 24	Chapter 2 – Soil Origin and Development	Chapter Quiz
January 27 - 31	Chapter 3 – Soil Classification and Survey	Chapter Quiz
February 3 – 7	Chapter 4 – Physical Properties of Soil	**Unit 1 Exam (Ch. 1 –4)**
February 10 – 14	Chapter 5 – Life in Soil	Chapter Quiz
February 17 – 21	Chapter 6 – Organic Matter	Chapter Quiz
February 24 - 28	Chapter 7 – Soil Water	Chapter Quiz
March 3 – 7	Chapter 8 – Water Conservation	**Unit 2 Exam (Ch. 5-8)**
March 10 – 14	**Spring Break – No Lecture**	**No Lab / No Quiz**
March 17 - 21	Chapter 9 – Drainage and Irrigation	Chapter Quiz
March 24 – 28	Chapter 10 – Soil Fertility	Chapter Quiz
March 31 – April 4	Chapter 11 – Soil pH and Salinity	Chapter Quiz
April 7 – 11	Chapter 13 – Soil Sampling and Testing	**Unit 3 Exam (Ch. 9-11,13)**
April 14 – 18	Chapter 12 and 14 – Plant Nutrition and Fertilizers	Chapter Quiz
April 21 – 25	Chapter 16 – Tillage and Cropping Systems	Chapter Quiz
April 28 – May 2	Chapter 18 – Soil Conservation	Chapter Quiz
May 5 - 9	Chapter 19- 20 –Urban Soils, Government Agencies and Programs	Chapter Quiz
May 12 – 16	FINALS WEEK	**Unit 4 Final Exam** (Ch. 12, 14, 16, 18, 19, 20)

General Education Competency/Learning Outcome(s) OR CTE Competency/Department Learning Outcome(s):

1. Demonstrates an understanding of the natural environment.
    a. Chooses best management practices for sustainability of the natural environment.
    b. Explains the impact of human activity on the environment.
2. Applies the Scientific Methods of Inquiry
    a. Utilizes the scientific process to solve problems.
3. Applies scientific information in everyday life.
    a. Recognizes the role of science in nature and society.

Relationship to Campus Focus: This course supports the Campus Focus of "Nature, Technology, and Beyond" by fostering the skills and knowledge necessary to utilize natural, human, and technological resources successfully and confidently for use in student's futures.

Classroom Policies:

- Students are expected to be polite and respectful of the instructor, other students, and any guests in our class.
- Lecture outlines are available from the course shell. The outlines can be used to guide you in the understanding of material and are useful in notetaking. Be prepared and have outlines ready for class.
- If a student is to miss an exam or quiz, it must be taken ahead of time for full credit.
- All assignments are due in a timely fashion. All assignments not turned in on time are subject to a minimum of 10% deduction on final score.
- When in doubt – communicate! Email and office hours are the easiest ways to let your instructor know of any issues or emergencies that arise.

Student Email Policy: Dakota College at Bottineau is increasingly dependent upon email as an official form of communication. A student's campus-assigned email address will be the only one recognized by the Campus for official mailings. The liability for missing or not acting upon vital information conveyed via campus email rests with the student.

Academic Integrity: According to the DCB Student Handbook, students are responsible for submitting their own work. Students who cooperate on oral or written examinations or work without authorization share the responsibility for violation of academic principles, and the students are subject to disciplinary action even when one of the students is not enrolled in the course where the violation occurred. The Code detailed in the Academic Honesty/Dishonesty section of the Student Handbook will serve as the guideline for cases where cheating, plagiarism or other academic improprieties have occurred.
Disabilities or Special Needs: Students with disabilities or special needs (academic or otherwise) are encouraged to contact the instructor and Disability Support Services.

Title IX: Dakota College at Bottineau (DCB) faculty are committed to helping create a safe learning environment for all students and for the College as a whole. Please be aware that all DCB employees (other than those designated as confidential resources such as advocates, counselors, clergy, and healthcare providers) are required to report information about such discrimination and harassment to the College Title IX Coordinator. This means that if a student tells a faculty member about a situation of sexual harassment or sexual violence, or other related misconduct, the faculty member must share that information with the College's Title IX Coordinator. Students wishing to speak to a confidential employee who does not have this reporting responsibility can find a list of resources on the DCB Title IX webpage.

AI Student Policy:
Unless otherwise indicated in the course syllabus, or in individual instructions for course assignments, or in the absence of the express consent of the course instructor, students are not allowed to utilize generative AI to help produce any of their academic work. Any violation of this policy will be considered an act of academic dishonesty as outlined within the Dakota College Code of Student Life.

RESPONSIBILITIES

Students	• Responsible for following the syllabus and assignment instructions regarding use of generative AI for all academic work. • Obtain permission of the instructor prior to the use of generative AI that is outside of the syllabus or assignment instructions. Provide appropriate rationale for how the use of generative AI will enhance the learning experience for the assignment. • In instances where generative AI is permissible, appropriately cite the generative AI program used and indicate where in the assignment it was used, in a brief submission statement.
Faculty	• Determine if the use of generative AI could enhance student learning in any assignment of project. • Clearly indicate in all course syllabi if generative AI is allowable for any academic work. • If allowable, give specific parameters for how and when generative AI may be used. • If a violation of generative AI for the individual course/syllabus is suspected, discuss the concern with the student. If violation is still suspected, inform the appropriate semester coordinator/program director.