DAKOTA COLLEGE AT BOTTINEAU

COURSE SYLLABUS

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

Number of Credits: 4

Course Description: Principles of plant nutrition and soil nutrient availability; soil testing and fertilizer recommendations and management. Macronutrient emphasis.

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 20

Office Hours: T / TH – 8:00 – 10:00 a.m.

Phone: 701-228-5498

Email: Michelle.cauley@dakotacollege.edu

Lecture/Lab Schedule: Lecture: MW – 8:00 – 8:50 a.m.
Labs - T 2:00 – 3:50

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	10%		A = 90 – 100%
Labs	30%		B = 80 – 89.9%
Assignments / Homework	10%		C = 70 – 79.9%
Unit Tests / Final Exam	40%		D = 60 – 69.9%
Professionalism	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.

Labs: Labs in this class are a privilege. Violation of school procedures regarding student conduct will not be tolerated. Many of the labs are all day or partial day field trips and you will be exempt from other classes on these occasions. However, this does not exempt you from the work that is missed for those classes. All missed work from classes missed because of this lab will need to be made up per arrangements with other instructors

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 day 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.

Professionalism: Your grade will also be determined by your professionalism in this course. Attendance, timeliness in meeting deadlines, participation, engagement in learning, respectful actions, communication – these will all be factored into your final grade in this course. Just like in the real world, professionalism matters.

Tentative Course Outline:

Week	**Over Arching Topics / Chapters**	**Exam / Quiz Schedule**
August 21 – 25	Chapter 1 – Importance of Soil	
August 28 – September 1	Chapter 2 – Soil Origin and Development	Chapter Quiz
September 4 – 8	Chapter 3 – Soil Classification and Survey	Chapter Quiz
September 11 – 15	Chapter 4 – Physical Properties of Soil	Exam 1 (Ch. 1 –4)
September 18 – 22	Chapter 5 – Life in Soil	Chapter Quiz
September 25 – 29	Chapter 6 – Organic Matter	Chapter Quiz
October 2 – 6	Chapter 7 – Soil Water	Chapter Quiz
October 9 – 13	Chapter 8 – Water Conservation	Midterm / Exam 2 (Ch. 5-8)
October 16 – 20	Chapter 9 – Drainage and Irrigation	Chapter Quiz
October 23 – 27	Chapter 10 – Soil Fertility	Chapter Quiz
October 30 – November 3	Chapter 11 – Soil pH and Salinity	Chapter Quiz
November 6 – 10	Chapter 13 – Soil Sampling and Testing	Exam 3 (Ch. 9-11, 13)
November 13 – 17	Chapter 14 - Fertilizers	Chapter Quiz
November 20 – 24	Chapter 16 – Tillage and Cropping Systems	Chapter Quiz

November 27 – December 1	Chapter 18 – Soil Conservation	Chapter Quiz
December 4 – 8	Chapter 20 – Government Agencies and Programs	Chapter Quiz
December 11 - 15	Review for Final	Finals Week! (Ch. 14, 16, 18, 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.
- All assignments are due in a timely fashion. Work can be completed up to a week late for up to 70% credit.
- If a student is to miss an exam or quiz, it must be taken ahead of time for full credit.
- 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.