Introduction to Soils Course Syllabus
Fall 2014

Course Prefix/Number/Title: SOIL 210
Number of Credits: 3 semester hours
Course Description: This class is designed to introduce students to one of the most important resources we have. With the knowledge gained through this course we can manage this slowly deteriorating resource so that it can serve and provide us with our requirements for life as well as for the future.

Course Objectives: The goal of this course is to facilitate student learning about soils and its management so that students better understand the interactions between this valuable resource and human activities.

1) To learn and retain information essential to understanding soils the managing this valuable Resource.
2) To understand and utilize the scientific methods of inquiry.
3) To practice sound, safe, and sensible laboratory techniques.
4) To appreciate the historic development of science.
5) To apply scientific information and principles to everyday life.
6) To recognize the interrelationship among the sciences, technology and society.

Instructor: Angie Bartholomay
Office: NSC 111
Office hours: MWF 9-10:00 am & 1-2:00pm
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Lecture Schedule: 8:00-8:50am MW Th1107

Lab Schedule: 11:00-12:50am Tuesday NSC 120

Textbook: Soils an Introduction; Michael J Singer, Donald N Munns 6th Edition

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 important information conveyed via campus email rests with the student.

Course Requirements:
Exams, quizzes, lab reports, and research paper will be used to determine the final grade. Any grievances about graded materials must be addressed within one week from the time the material is returned to the student.

Exams (4)	100 points each	400 points
Lab reports (13)	15 points each	200 points
Final Lab Project	100 points	100 points
Quizzes (10)	10 points each	100 points
Final Exam	100 points	100 points
Total points		900 points

Exams: There will be four regular exams. Exams may contain short answer, multiple choice, Completion and problems. Periodic tables and calculators may be used on the test.

Homework: Throughout the semester problems will be assigned in order for you to better Comprehend the concepts and math involved. This homework will not be graded, however you Will be able to use these assignments on quizzes. The problems assigned will be similar to those Which will be on the exams.

Quizzes: will be used to check for understanding. Quizzes cannot be made up.

Laboratory: The laboratory portion of the course provides an opportunity to integrate lecture Concepts with observable activities and is critical to understanding chemical concepts. Safety Goggles are available for purchase in the bookstore. Attendance in lab is mandatory and the Instructor must validate that you actually assisted in the collection of data. Borrowed results Are not acceptable and all parties involved will receive a grade deduction. Lab reports are due at The beginning of the next lab class. Late lab reports will not be accepted. Failure to wear safety Goggles, not following instructions or using unsafe procedures is unacceptable and may result in Your dismissal from further labs. Field trips will be taken as a part of lab in order for students to Gain 1st hand experience in soil testing and analysis.

Final lab- A special activity involving application of the principles of scientific method and inquiry Will occur the last two lab sessions and are due at the end of the last scheduled lab day. A Formal lab report must be completed.

Grades will be based on total points using the following grading scale:

A= 90-100%
B= 80-89.5%
C= 70-79.5%
D=60-69.5%
F= <59.5%

Tentative Course Outline:		Reading	lab schedule
Week 1	Soils, Soil Ecosystems	p.1-9	No Lab
Week 2	Soil Formation, Classification	p.10-14	soil texture
Week 3	Soil organic matter & pores	p. 15-40	soil solution & buffering
Week 4	air, water, porosity & permeability	p. 40-55	porosity & permeability
Week 5	Soil physical properties	p.55-70	soil properties
	Exam #1- Chapters #1-3		water conservation
Week 6	Soil Climate	p.71-76	soil fertility
Week 7	Soil water, potential & retention	p.87-109	soil water
Week 8	soil biology	p.111-133	soil organisms
Week 9	Carbon, nitrogen cycles & microbes	p.134-168	soil organisms
	Exam #2 Chapters #4-8		plant nutrition
Week 10	nutrients in plants & soil	p.169-198	macronutrients
Week 11	managing plant nutrients & fertilizers	p.199-239	soil analysis
Week 12	acidity, salinity & soil genesis	p.212-248	pH
Week 13	organic soils	p.249-300	soil formation
	Exam #3 Chapters 9-12		soil sampling & testing
Week 14	Soil information & surveys	p.301-338	soil survey
Week 15	soil degradation & control	p.353-383	soils as filters
Week 16	uses of soil & water quality	p.385-405	final lab
12/12/14	Final Review		
12/15-19/14	Final Exam		

General Education Goals & Objectives

This course meets General Education Goal 1: Explains the interrelationships between soil and their environment and the role of science in their lives. Specific objectives include;

1. - Demonstrates the application of the scientific method of inquiry (Objective #1)
2. - Demonstrates an awareness of the role of science in everyday life (Objective #3)

Relationship to Campus Theme:

This course addresses the campus them by incorporating role chemistry plays in our everyday life and the impact it has on our natural world. In addition students will use technology to conduct labs as well as study how technology can be used in chemistry. The course will address the role of chemistry in their everyday life as well as in the future.

Classroom Policies:

1) Cell phones, electronic devices & using headphones are prohibited in the classroom. It is recommended that you do not bring these devices into the classroom or have them on silent and placed on the table in front of you.
2) Food and beverages are permitted in accordance with IVN classroom policy.
3) Be respectful of other students, technicians, instructors and guests

Academic Integrity

All students are expected to adhere to the highest standards of academic integrity. Dishonesty in the classroom or laboratory with assignments, quizzes and exams will not be tolerated. Refer to the student handbook for further information.

Disabilities and Special Needs:

If you have a disability for which you require accommodations, you are encouraged to contact your instructor and the learning center (228-5479 or 1-888-918-5623) to request disability support services as early as possible during the beginning of the semester.