

Introduction to Soils Course Syllabus
Fall Semester 2012 - Online

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 courses such as this 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.

Objectives:

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.

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Textbook: Soils an Introduction; Michael J Singer, Donald N Munns 6th Edition
Available from the campus bookstore or from online sources.

Course Requirements:

Exams, discussions, and lab assignments 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 (5)

Labs: 9

Discussions: 2 Multiple Threads available from either instructor or students.

Exams: There will be five regular exams. Exams may contain short answer, multiple choice, matching true/false and problems. Notes and textbooks may be used on the test. Tests will allow 2 attempts with an average being the final score. **Be sure to do well on the first attempt and be sure to wait until I have gone over the first attempt before attempting the second. You may have answers right that the auto grading missed.**

Be sure to check your grades regularly to be sure that I have not missed any assignments that have been turned in. I try to check the class at least once a day, unless I am away from a computer hookup.

Laboratory: The laboratory portion of the course provides an opportunity to integrate lecture concepts with observable activities.

- Some will involve activities performed in the field or in a lab situation. If it is a lab type project, it may be done with simple household or gardening type tools or it may be done in a regular soils lab setting if that is available to you.
- The majority of labs will be written reports on observations made in the local landscape or articles assigned to be read. These reports should be in your own words and complete enough to cover the subject.

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%

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

Relationship to Campus Theme:

This course addresses the campus theme by incorporating the role soils play in our everyday life and the impact they have on our natural world. In addition students will use technology to conduct labs as well as study how technology can be used in soil science.

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.

Tentative Course Outline: Reading and lab schedule

Since the online class is designed to be done at your own pace, these are a suggested schedule. Midterm grades, given to let you know how you are doing up to that point, will be based on the completion of the first 2 exams by October 10, 2012

Test dates are last date for completion. Labs and tests may be done in advance if desired.

Test 1	Introduction , Terminology	p. 1-9	
Sept. 15	Soil Formation	p. 10-14	soil profiles - Natural and Urban
	Soil Genesis	p. 267 – 300	

Test 2	Soil Solids and Pores	p. 15 - 44	texture analysis
Oct. 10	Liquids and Gases	p. 50 - 70	bulk density
	Soil Climate	p. 71 - 86	
	Soil Water	p. 87 - 109	soil pores / water movement

Oct. 12, 2012 Midterm grades will be determined based on the above tests.

Test 3	Soil Biology, Nutrient Cycles and Microbes		
Nov. 1		p. 134 - 151	
	Microbial Processes	p. 158- 184	myccorhizal roots

Test 4	Nutrients and their Management	p. 190 - 239	Non-Cropping deficiencies
Nov. 20	Acidity and Salinity	p. 240 - 266	

Test 5	Soil Information Management	p. 301 - 320	inferred properties
Dec. 10	Soil Degradation	p. 353 -384	bioremediation in Bakken
	Nonagricultural Uses of Soils	p.: 385 - 410	