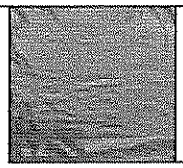
THE OHIO STATE UNIVERSITY



SENR

COURSE SYLLABUS

SOIL SCIENCE LECTURE

ENR 300.01
Winter 2008
3 Credits

Course Instructor
Brian K. Slater
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Teaching Assistants

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Textbook:
Soils: An Introduction (6th Edition, 2006)
by Michael J. Singer, Donald N. Munns
Pearson Prentice Hall
ISBN: 0131190199

Course Objectives:
The overall objective of this introductory course is to introduce the basic concepts and vocabulary of soil science. During the course we will examine the physical, chemical and biological properties of soils and their interactions with other components of forest, wetland, agricultural and grassland ecosystems. Information about soil properties and behavior will help shape decisions regarding appropriate use and management of the valuable soil resource.

Specific objectives are to:

1. understand how soils are formed and classified,
2. learn about important soil processes and their influence on soil behavior,
3. examine the role of soils in a variety of terrestrial ecosystems, and
4. develop an appreciation for the world soil resource base and the importance of its conservation.

Prerequisites
Understanding soils requires a working knowledge of the principles and vocabulary of the sciences, including elementary chemistry. Students attempting to take this course without having received credit for Chemistry 101 or 121 (or an equivalent course) should be aware that the level of understanding is assumed, and little time will be available to review basic concepts of chemistry.

Course Content:
The lectures and reading assignments are intended to complement each other. Most lectures will be directly related to assigned readings. The objective of the lectures will be to clarify important concepts and provide some supplemental material. Students are responsible for subject matter covered in lecture, the textbook, and any handouts. Handout pages of all lectures are posted on the School of Environment and Natural Resources website, http://snr.osu.edu/current/courses/enr300.html.

Grading

Grades will be based on:

2 Midterm exams @ 30% each: 60%

Final exam	30%
Attendance	10%

Grades will be calculated on a scale of 0 - 100% of possible points. Letter grades will be assigned using a statistical curve. Attendance will be taken on 3 to 5 randomly selected dates throughout the quarter.

Exams:
Midterm exams will be held on Monday January 22 and Monday February 19. The midterms and final will be in-class, closed book exams. The first mid-term will cover all material presented through January 19; the second mid-term will cover material presented from January 22 through February 16. The final will be comprehensive, covering all material presented during the quarter. The exams may be any combination of multiple choice, matching, true/false, short answer, and problem solving questions (bring a calculator!). If an exam is missed due to medical problems, family tragedies, or university sponsored activities, a written excuse from your physician or academic advisor must be provided. Otherwise, a zero will be assigned for that exam. There will be no make-up exams or extra-credit assignments. Incompletes will not be given unless pre-arranged with the instructor.

Access and Accommodations:
If you have concerns based on the impact of a disability, you should contact the instructor as soon as possible to arrange an appointment for discussing the course format, your needs, and accommodations. We rely on the Office for Disability Services for assistance in verifying the need for accommodations and developing strategies. If you have not previously contacted the Office for Disability Services, we encourage you to do so.

Tentative Outline and Schedule

Week	Lecture Topic(s)	Reading
1 (January 4)	Course overview; defining soil - form and function	Ch 1
2 (January 7-11)	Soil horizons and units; soil formation, weathering, soil forming factors and processes;	Ch 12
3 (January 14-18)	Soil geography, mapping and classification; Soil Orders	Ch 13
Wednesday, January 23	MIDTERM EXAM 1	
4 (January 25)	Soil physical properties, particles, pores and texture	Ch 2.1, 2.2
5 (January 28 - February 1)	Soil physical properties, structure, color, organic matter	Ch 2.4, 2.5, 2.6
6 (February 4-8)	Soil water	Ch 3.3, 5
7 (February 11-15)	Soil air	Ch 3, 4
Monday, February 18	MIDTERM EXAM 2	
8 (February 20-22)	Soil chemical properties	Ch. 2.3
9 (February 25 – 29)	Soil acidity, nutrients	Ch 11
10 (March 3-7)	Mineral nutrients and cycles, soil biology	Ch. 9, 10, 7
Wednesday March 12	FINAL EXAM	1:30 to 3:18 p.m.

Academic Misconduct (3335-31-02):
Academic misconduct is defined as any activity that tends to compromise the academic integrity of the institution, or subvert the educational process. Examples of academic misconduct include, but are not limited to:

violation of course rules as contained in the course syllabus or other information provided the student; violation of program regulations as established by departmental committees;

providing or receiving information during quizzes and examinations such as course examinations and general examinations; or providing or using unauthorized assistance in the laboratory, at the computer terminal, or on field work;

submitting plagiarized work for an academic requirement. Plagiarism is the representation of another's works or ideas as one's own; it includes the unacknowledged word for word use and/or paraphrasing of another person's work, and/or the inappropriate, unacknowledged use of another person's ideas;

falsification, fabrication, or dishonesty in reporting research results;

serving as, or enlisting the assistance of, a "ringer" or substitute for a student in the taking of examinations;

alteration of grades or marks by the student in an effort to change the earned grade or credit; and

alteration of University forms used to drop or add courses to a program, or unauthorized use of those forms.

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