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: Fridays: 10am-12pm in room HW214

PRACTICALS: Tues 12-3pm or 3-6pm in SW 313

FIELD TRIP: Saturday Oct. 1st

COURSE DESCRIPTION

A study of the chemical, physical and biological properties of soils, soil formation and development, the classification of soils and the application of soil science to environmental issues and their response to environmental change.

PREREQUISITES

EESA01H - Introduction to Environmental Science **or**

EESA06H - Introduction to Planet Earth

REQUIRED READING (available at the UTSC bookstore):

“**Elements of the Nature and Properties of Soils**” by N.C. Brady and R.R. Weil, 2002, Pearson Publishers. This text is available from the UT Scarborough bookstore and from various sources on the internet.

COURSE LAYOUT

Lecture	Date	Lecture topic	Readings
1	Sept. 9	Introduction	Chapter 1
2	Sept. 16	Origin of soils/taxonomy	Chapter 2 & 3
3	Sept. 23	Soil physical properties	Chapter 4
4	Sept. 30	Soil water	Chapter 5
5	Oct. 7	Soil porosity	Chapter 7
6	Oct. 14	Mid-term	
7	Oct. 21	Soil chemical properties	Chapter 8
8	Oct. 28	Soil acidity	Chapter 9
9	Nov. 4	Soil biology & organic matter	Chapter 10 & 11
10	Nov. 11	Soil-plant relationships	Chapter 12 & 13
11	Nov. 18	Tropical soils and soil management	Chapter 14
12	Nov. 25	Review	

PRACTICALS

Practical	Date	Practical topic
1	Oct. 18 or Oct. 25	Soil properties – texture, porosity and bulk density
2	Nov. 1 or Nov. 8	Soil chemical properties – CEC and pH

COURSE WORK AND EVALUATION

The evaluation scheme is designed to meet the objectives of this course. Comprehension of the lecture material and readings, in both general and specific form, will be evaluated by the mid-term and final exam. Analytical skills will be evaluated with two practicals. Weights are as follows:

Practicals (15% x 2) = 30%
Mid-term = 30%
Final = 40%

Both the midterm and final exam will draw from lecture and practical materials and includes lecture notes and *any* material presented in the classroom that may or may not be posted on blackboard. Information from the textbook and other resources not directly covered in class or in the practical will not be tested on exams. Exams will contain both multiple choice and short answer questions.

Mid-term test

A mid-term test will be held in class. The test will consist of multiple-choice, short answer questions and some calculations and will be worth 30% of your final grade. Make-ups will not be given for the mid-term test. If you miss the test for a verifiable reason (i.e. Doctor's note), the weight of the mid-term will be added to the weight of your final exam with the permission of the instructor.

Final Exam

A comprehensive final exam will be given during UTSC examination period worth 40% of your final grade.

Practicals

Please see the Practicals Instruction Sheet for a detailed description of topics.

Field Trip

A half-day field trip to Durham Forest (30 minutes from UTSC) will be conducted on Saturday October 1st. Transportation will be provided. This field trip is not mandatory but you are highly encouraged to attend. More details will be provided in class.

COURSE POLICIES

Attendance and Penalties for late work

Practical attendance is mandatory. Students who do not collect their own data during the practical session will not be allowed to submit an assignment for grading and automatically will receive a grade of zero. TAs will be making note of absent students.

Late assignments will not be accepted and assigned a grade of zero. Students must hand in assignments to your TA at the beginning of your next practical session.

Plagiarism

Plagiarism is a serious academic offence. Please read the faculty's guidelines on plagiarism. Do not hesitate to consult with your instructor or TA about strategies that you can use to avoid being accused of plagiarism.

Office hours

I, the instructor, am available for two office hours per week. You are invited to attend office hours to discuss the lecture material, the nature of the final exam, the Environmental Science program at UTSC and/or the state of the world in general. This time is dedicated to your interests and questions, so please make use of it. The teaching assistants in this course also provide office hours for you, and your questions and your interests. I encourage you to make full use of this time.

Email contact

I will answer emails concerning this course on Tuesday and Thursday afternoons. This is to encourage you to make use of both the instructors and the TA office hours. Tutorials will not be given over email. At times, I may decide to send out important course

RESOURCES