

University of Toronto
at Scarborough

2008-2009

**"INTRODUCTION TO ENVIRONMENTAL SCIENCE"
(EES A01H3 F LEC01)**

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Lecture:

Monday 09H00 - 11H00; AA-112

Text:

Environmental Science, B. Freedman, *Prentice Hall*, (4th Edition.)

Grading:

Tutorials (4):	30%
Mid-term Examination:	25%
Final Examination:	45%

Intent of the course:

To investigate the relationships between environmental degradation and human activity in terms of the physical and biological processes operating at or near the earth's surface. The environmental costs and consequences of human activity are examined in an attempt to define balances between human living conditions and environmental integrity.

LECTURE TOPICS

1. Introduction, ground rules, expectations, course structure
2. Human development and the environment
3. Global energy flows and the global water cycle
4. Local and global water resource issues
5. Soil development and characteristics
6. **THANKSGIVING: NO CLASS**
7. Soil utilization, degradation and management
8. Biological productivity and its human utilization
9. Genetic depletion and the protection of biological resources
10. Energy extraction and utilization
11. Non-renewable resource utilization
12. Economic gain and environmental loss
13. Summary and conclusions

Sept 8th
 Sept 15th
 Sept 22rd
 Sept 29th
 Oct 6th
 Oct 13th
 Oct 20th
 Oct 27th
 Nov 3rd
 Nov 10th
 Nov 17th
 Nov 24th
 Dec 1st

(Nota Bene; Monday)

I will follow this schedule as closely as possible, but things being what they are, some of these topics may "overflow" over into other time slots.

TUTORIALS

You will have 4 tutorials during the term, worth 30% of the final grade. You will be able to access the problem sheets on the Web as detailed below. Completed exercises must be placed in the box of the appropriate TA, outside N-221, by 17h00 on the dates shown. More details on the tutorials will be circulated during the Term. Attendance at tutorials is mandatory, and tutorial #0 is crucial for getting information: you must attend!

TUTORIALS SUBMITTED LATE WILL NOT BE ACCEPTED

You should use a word processor for your written responses. Your document should conform to the following: 25.4 mm margins, single-spaced, 12-point print size. The document must bear a handwritten name, signature, date and student number. Calculations may be handwritten.

	<i>Topic</i>	<i>On the Web</i>	<i>Discussion Wk of</i>	<i>Submission Due</i>
Tut 0:	Introduction --	Sept 15 th	Sept 15 th	-----
Tut 1:	Population Issues	Sept 22 nd	Sept 22 nd	Oct 3 rd
Tut 2:	Water Issues	Oct 6 th	Oct 6 th	Oct 24 th
Tut 3:	Soil Issues	Oct 27 th	Oct 27 th	Nov 7 th
Tut 4:	Biological Issues	Nov 17 th	Nov 17 th	Nov 26 th

MID-TERM EXAMINATION

The 2-hour mid-term examination will be held during the mid-term period, exact time, date and rooms TBA. The exam will consist of multiple-choice, true-false choice and "fill-in -the-blanks", and will be worth 25% of the final grade.

FINAL EXAMINATION

The final examination is worth 45% of the final grade for the course. It will be a combination of multiple choice, true-false choice, "fill-in-the-blanks" and written (short essay) answers.

FURTHER READINGS:

These titles are suggestions for supplementary reading. You do not have to restrict yourself to these items; the more you read, the better equipped you will be. As a minimum, you should read the course text **in its entirety**.

"Our common future": *Gro Harlem Brundtland (Chair)* The report of the World Commission on Environment and Development. Oxford University Press, 400 pp.

"The human impact on the natural environment": *Andrew Goudie*, Blackwells, 388 pp.

"Planet under stress": *Constance Mungall and Digby McLaren (eds.)* For the Royal Society of Canada, Oxford University Press, 344 pp.

"Environmental Science": *William Cunningham and Barbara Saigo*, Wm. C. Brown Publishers, 622 pp.

"Geosystems": *Robert Christopherson*, Macmillan, 616 pp.

"Global Environmental issues": *Kevin Pickering and Lewis Owen*, Routledge, 389 pp.

"Environment": *Peter Raven, Linda Berg and George Johnson*, Saunders College Publishing, 567 pp.

"Environmental Science", Sixth Edition, *Enger, E.D., and B.F. Smith*, McGraw-Hill

Ground Rules.

- 1.** In a large enrolment (300+) course like this, the quality of your learning experience depends not only on me (the Prof.), but also on you (the students).
- 2.** I can only do my best if I have your full and undivided attention for the whole class. Things which will rob me of that attention are:
 - a.** Late (noisy, disruptive) arrivals. This is a particular “hot-button” for me as you may well find out. This also applies to arrival back for the second hour of class.
 - b.** Cellphones ringing. I do not care who the call is from; you will **not** take it in class. Please switch off all pagers and cells before coming into class; even those that are in backpacks.
 - c.** Chattering and sharing particularly interesting newspaper ads with your chums. It is a complete mystery to me why anyone would spend all kinds of money on a class, and then futz about rather than trying their best to follow the material. That kind of stuff happening in class will force me to deal with it, and will also interrupt the flow of the class, most particularly for the people sitting close to the perpetrator(s).
 - d.** Behaviour that might have been acceptable (and which probably should not have been) in small high-school classes is not acceptable in the University context. The level of demand in this class is sufficiently high that nothing less than your best effort will be adequate. You have only 24 hours of class contact time with me; every minute counts. I have a mass of fundamentally important ideas to communicate to you; we have to work hard together at it to succeed.
- 3.** The material you will get from me in class will not all appear on the Web; I believe that the classroom experience is absolutely critical to the full University experience. I believe that putting all material on the Web is just an overt invitation to skip class. In addition, much of what I do in class is not very fully covered in the course text. If you miss that class material, it's gone. If you miss class, you'll also miss some fantastic jokes and anecdotes.....
- 4.** I do not mind questions in class if they can be answered quickly. If they cannot, I will defer answering them until the time between the two class hours, or until after class.
- 5.** I believe that the things that I am going to teach you are of surpassing importance. I have been teaching here for a very long time; I was certainly doing this before you were born, and in all probability before your parents even met. I still have a passion for this material and very much want to transmit that to you. All the above is simply an attempt to make the process easier and more enriching.
- 6.** I will soon have office hours posted on my door (and on the Intranet). If for any reason you don't want to talk to me directly, the TAs will also be available for consultation.