INTRODUCTION TO ENVIRONMENTAL SCIENCE
(EES A01H3F, Fall 2009)

Instructor: C.P.J. Mitchell
Phone: 416 208 2744
Office: SY-362
Email: carl.mitchell@utoronto.ca

Office Hours: Tuesdays, 1-3pm and by appointment.

Teaching Assistants: TBA

Course Web Site: Everything on Blackboard (https://portal.utoronto.ca)

Lecture Time: Monday, 09H00 - 11H00; AA-112
Additionally: Web Option
If you are “Web Option”, do NOT physically come to the first lecture; view it only on the web.

Practical Times: Please go only to the tutorial slot assigned to you by the Registrar’s Office.
Contact Prof. Mitchell is there is a conflict.
Monday, 11H00 - 13H00; HW-408
Monday, 13H00 - 15H00; HW-408
Monday, 15H00 - 17H00; HW-402
Tuesday, 16H00 - 18H00; HW-402
Wednesday, 13H00 - 15H00; HW-402
Thursday, 09H00 - 11H00; HW-402
Thursday, 09H00 - 11H00; HW-309
Thursday, 11H00 - 13H00; HW-402
Thursday, 12H00 - 14H00; HW-310
Thursday, 15H00 - 17H00; HW-402

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

Text: "Environment: The Science Behind the Stories, Canadian Edition"
[Authors: Jay Withgott, Scott Brennan, and Barbara Murck; Publisher: Pearson Canada, 753pp.]

INTENT OF THE COURSE

This course will introduce students to the science behind processes occurring on the earth and within its atmosphere. The course will look at 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 OUTLINE / SCHEDULE

<table>
<thead>
<tr>
<th>DATE</th>
<th>LECTURE CONTENT</th>
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<tbody>
<tr>
<td>Sept. 14</td>
<td>Introduction, Ground Rules, Expectations, Course Structure, and Environmental &quot;Science&quot;.</td>
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<tr>
<td>Sept. 28</td>
<td>Earth Systems and Ecology</td>
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<tr>
<td>Oct. 5</td>
<td>Global Energy Flows and the Global Water Cycle</td>
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<td>Oct. 12</td>
<td>THANKSGIVING: NO CLASS</td>
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<td>Oct. 19</td>
<td>Water Resource Issues</td>
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<td>Oct. 26</td>
<td>Soils and Soil Degradation</td>
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<td>Nov. 2</td>
<td>Genetic Depletion and Biodiversity</td>
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<td>Nov. 9</td>
<td>Atmospheric Science and Global Climate Change</td>
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<td>Nov. 16</td>
<td>Energy Extraction and Impacts</td>
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<td>Nov. 23</td>
<td>Resource Utilization and Alternatives</td>
</tr>
<tr>
<td>Nov. 30</td>
<td>Economic Gain, Environmental Loss</td>
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<tr>
<td>Dec. 3</td>
<td>Last Class: Challenges and Lessons Learned; Summary and Conclusions</td>
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NOTE: THIS IS A THURSDAY LECTURE (CALLED “UTSC MONDAY”) TO MAKE UP FOR THANKSGIVING

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.

TUTORIAL OUTLINE / SCHEDULE

You will have 4 tutorials during the term, worth 30% of the final grade. You will be able to access the problem sheets on Blackboard as detailed below. Completed exercises must be placed in the box of the appropriate TA, outside room SW-624A, 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!

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.

<table>
<thead>
<tr>
<th>Tut 0:</th>
<th>On Blackboard</th>
<th>Discussion Wk of</th>
<th>Submission Due</th>
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<tbody>
<tr>
<td>Tut 1:</td>
<td>Sept. 21</td>
<td>Sept. 21</td>
<td>In Tutorial</td>
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<tr>
<td>Tut 3:</td>
<td>Nov. 2</td>
<td>Nov. 2</td>
<td>Nov. 13</td>
</tr>
<tr>
<td>Tut 4:</td>
<td>Nov. 23</td>
<td>Nov. 23</td>
<td>Dec. 3</td>
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MISSED MID-TERM/LATE PENALTIES FOR PRACTICALS

The 2-hour mid-term examination will be held during the mid-term period, exact time, date and rooms to be announced in class when this information becomes available. The exam will consist of multiple-choice, true-false choice and "fill-in-the-blanks", and will be worth 25% of the final grade. Make-ups will not be given for the mid-term examination. If you miss the examination for a verifiable reason (i.e. you have a Doctor’s note) and/or if you have made provisions regarding the mid-term prior to it being conducted, the weight of the mid-term will be added to the weight of your final exam. This puts a very heavy weight on your success in the final exam and I highly DO NOT recommend this. If you simply "miss" the mid-term, you will receive a mark of zero.

Practical assignments are due on the dates shown in the above schedule. Late assignments and final projects will be penalized at a rate of 10%/day (business days) and will not be accepted (you will receive a mark of zero) after being 5 days late.

INTERACTION WITH THE PROFESSOR AND TEACHING ASSISTANTS

I (Professor Mitchell) very much enjoy speaking with students, especially about Environmental Science and you are welcome to discuss all facets of the course material with me during my office hours or by appointment. I am very friendly, so please do not be afraid. Your TAs also have office hours and you should take advantage of these for questions pertaining to your laboratory assignments or if you are somehow intimidated about speaking face-to-face with me. Neither I nor the TAs however, will answer point-blank questions about specific questions on assignments, especially just prior to them being due. If you attend all lectures and all laboratories in an attentive manner, you should have little problem in completing excellent assignments and performing well on examinations.

Each and every student is expected to attend EVERY lecture and/or review every lecture via the WebOption. I will not re-teach an entire class to someone because they missed it. Please rely on your fellow colleagues in the class for missing notes or re-review the lecture via the WebOption. Lecture slides will be posted on Blackboard, but little of what I may “say” will actually be on those slides so it is important to note that the following is fair game for examination material: what is on lecture slides, what is in your readings, EVERYTHING that I say in lecture. Lecture slides are posted to facilitate your learning DURING lecture and for you to avoid having to, for example, copy large diagrams while you should be taking notes or listening. All lecture notes will be posted on Blackboard prior to each scheduled lecture.

Email policy: For questions pertaining to the course and assignments, students should directly ask the Professor or your TA or post the question in Blackboard. Short emails will usually be answered with appropriate, short responses. Long, drawn out questions and/or questions pertaining to very general subjects, which are likely to be of interest to the entire class, should be posted on the Blackboard (Discussion Board module) so that the entire class may benefit from the answer. All students should check the Discussion Board module of Blackboard at least weekly. All emails should be sent via a “.utsc.utoronto.ca” or “.utoronto.ca” email address. Emails from other domains will likely be lost to spam filters and not responded to. Emails from students in this course are responded to only on Tuesdays and Thursdays between 4 and 5 pm.

BLACKBOARD INFORMATION

Logging in to your Blackboard Course Website
Like many other courses, EESB04 uses Blackboard for its course website. To access the EESB04 website, or any other Blackboard-based course website, go to the UofT portal login page at http://portal.utoronto.ca and log in using your UTORid and password. Once you have logged in to the portal using your UTORid and password, look for the My Courses module, where you’ll find the link to the EESB04 course website along with the link to all your other Blackboard-based courses.

Activating your UTORid and Password
If you need information on how to activate your UTORid and set your password for the first time, please go to http://www.utorid.utoronto.ca. Under the “First Time Users” area, click on “activate your UTORid” (if you are new to the university) or “create your UTORid” (if you are a returning student), then follow the instructions. New students who use the link to “activate your UTORid” will find reference to a “Secret Activation Key”. This was originally issued to you when you picked up your Tcard at the library. If you have lost your Secret Activation Key you can call 416-978-HELP or visit the Help Desk at the Information Commons on the ground floor of Robarts Library to be issued a new one. The course instructor will not be able to help you with this. 416-978-HELP and
the Help Desk at the Information Commons can also answer any other questions you may have about your UTORid and password.

**Email Communication with the Course Instructor**
At times, the course Instructor may decide to send out important course information by email. To that end, all UofT students are required to have a valid UofT email address. You are responsible for ensuring that your UofT email address is set up AND properly entered in the ROSI system. You can do that by using the following instructions:

To submit the information to activate your UTORid and password (see above), you will need to click the "Validate" button. Follow the instructions on the subsequent screens to receive your utoronto.ca address. Once you have your UofT email address, go to the ROSI system (www.rosi.utoronto.ca), log in and update the system with your new UofT email address.

**You can check your UofT email account from**
1. The UofT home page [http://www.utoronto.ca](http://www.utoronto.ca): From the Quick Links menu on the top right, choose "my.utoronto.ca". Enter your UTORid and password, and when the Welcome page opens, click "WEBMAIL".
2. Email software installed on your computer, for example Microsoft Outlook or Mozilla Thunderbird. Visit the Help Desk at the Information Commons or call 416-978-HELP for help with the set up.

Forwarding your utoronto.ca email to a Hotmail, Gmail, Yahoo or other type of email account is not advisable. In some cases, messages from utoronto.ca addresses sent to Hotmail, Gmail or Yahoo accounts are filtered as junk mail, which means that emails from your course instructor may end up in your spam or junk mail folder.

**You are responsible for:**
1. Ensuring you have a valid UofT email address that is properly entered in the ROSI system
2. Checking your UofT email account on a regular basis.

**STUDENT CODE OF CONDUCT**
Please arrive promptly for lecture and do not forget to turn off cell phones and laptops. You are fully expected to abide by the Code of Student Conduct as set out by The Governing Council at the University of Toronto (http://www.utoronto.ca/govcncl/pap/policies/studentc.html). This document defines the standards by which students are to conduct themselves within class and within the University community at large. Please be advised that misconduct of any form will not be tolerated in this class. This includes plagiarism on tests, assignments, projects, and exams, which will be strictly enforced and is easily detected. If you have further questions regarding what constitutes plagiarism or other academic offences, feel free to speak with Prof. Mitchell or your TA.

**SOME FINAL WORDS OF ADVICE**
This course is only moderately technically demanding (some of you may not agree entirely!), but there are plenty of things that will be unfamiliar. It is difficult to "crash and burn" because of the large number of elements in the course. It is, however (and for the same reason), a considerable task to maintain a high standard. You cannot do really well if you do very poorly on any element, so be vigilant: a really bad mid-term, for example, can make a difference of at least a letter grade to your final mark.

Given the size of this class, I ask that we all conduct ourselves professionally and with respect. There are 300+ students in this lecture hall at the same time and given our limited time with each other (only 24 hours for the entire term), it is important that 1) you put your best effort forward in paying attention in class, and 2) you do nothing that might disturb your fellow students or myself (cellphones must be shut off, do not arrive late, do not discuss yesterday’s TV episode with you friend, do not check email, tweet, or update your Facebook page while I lecture). You and all the other students have paid a lot of money to be here, and what I have to say is extremely important to your education in Environmental Science, so following these rules will provide an enriching learning experience for everyone.