University of Toronto at Scarborough

"INTRODUCTION TO ENVIRONMENTAL SCIENCE"

(EES A01H3F, Fall 2011)

Professor: Dr. C.P.J. Mitchell **Phone:** 416 208 2744 **Office:** SY-362
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Office Hours: Wednesdays, 11:30 am to 1:30 pm and by appointment.

Teaching Assistants: TBA

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

Lecture Time: Mondays, 10am-noon; AC-223

Tutorials: **Tutorials start the week of September 19, NOT the first week of school. Please go only to the tutorial slot assigned to you by the Registrar's Office because all tutorials start the semester at full capacity (40 students each). Contact Prof. Mitchell directly, not your TA, if there is a conflict. However, please note that no one unfortunately, not even Prof. Mitchell, can remove someone from a tutorial to fit you into another. Your best bet to get into a tutorial that works best for your schedule is to check ROSI daily for room in case a student drops the course, thus providing an open spot.**
Note that tutorial rooms sometimes change in the first few weeks of class. Also, additional tutorial sections may be added. You will be advised in lecture and through Blackboard.

Grading:

Assignments (5 @ 6% each):	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, chemical 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. The course is science-based and intended for students interested in pursuing environmental issues from a scientific (physical, chemical, biological, and mathematical), rather than social, perspective.

ACCESSIBILITY STATEMENT

Students with diverse learning styles and needs are welcome in this course. In particular, if you have a disability/health consideration that may require accommodations, please feel free to approach me and/or the Access*Ability* Services Office as soon as possible. I will work with you and Access*Ability* Services to ensure you can achieve your learning goals in this course. Enquiries are confidential. The UTSC Access*Ability* Services staff (located in S302) are available by appointment to assess specific needs, provide referrals and arrange appropriate accommodations. (416) 287-7560 or ability@utsc.utoronto.ca.

LECTURE OUTLINE / SCHEDULE

DATE	LECTURE CONTENT
Sept. 12	Introduction to Environmental "Science"
Sept. 19	Humans, Population, and the Environment
Sept. 26	Earth Systems and Ecology
Oct. 3	Global Energy Flows and the Global Water Cycle
Oct. 10	**THANKSGIVING: NO CLASS**
Oct. 17	Water Resource Issues
Oct. 24	Soils and Soil Degradation
Oct. 31	Genetic Depletion and Biodiversity
Nov. 7	Atmospheric Science and Global Climate Change
Nov. 14	Energy Extraction and Impacts
Nov. 21	Resource Utilization and Alternatives
Nov. 28	Economic Gain, Environmental Loss
Dec. 1	Last Class: Challenges and Lessons Learned; Summary and Conclusions

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 AND ASSIGNMENT OUTLINE / SCHEDULE

Attendance at the tutorials listed in the schedule below is mandatory for everyone and attendance WILL be taken. In general, during one week of your tutorial, TAs will teach you some new environmental science skill (these are broadly listed below in the schedule) and will go through a multitude of examples related to these new skills. At this tutorial, you will be given a take-home assignment that you must complete within 8 days. During tutorial the week following, you will have an opportunity to meet with your TA during normal tutorial hours and in your normal tutorial room the day before the assignment is due, in case there are any lagging misunderstandings. Assignments are then due in the drop box on the 6th floor of the Science Wing (exact placement of drop boxes will be discussed in tutorial as this is not yet known) the following day by 4pm. Unfortunately, it is very difficult to keep track of all 450+ students in the class and as such, late assignments will not be accepted and will be given a mark of zero. The only time a late assignment will be accepted is if a student suffers a medical issue that is substantiated by a doctor's note, given to your TA. For all other issues and schedule conflicts, you are expected to hand in your assignment EARLY. This rule will be followed very strictly. Keep in mind that tutorials are worth 6% each, for a total of 30% of your final grade. We will strive for as short a turnaround in marking assignments as is possible so that you regularly know where you stand. Typical turnaround times for marking assignments will be ~2 weeks. Unfortunately, no one, including Professor Mitchell can move students between tutorial slots and most tutorial slots will begin the semester entirely at their maximum allowable limit (generally 40 students per tutorial). Sign up for specific tutorial slots is on a first-come-first-served basis, starting when you first chose your classes for the semester. If you have a hard conflict with another class or tutorial, your only option is to log in to ROSI at least daily to check for

openings in other slots as they come up. Generally, there is a lot of movement over the first couple of weeks of classes. I will do what I can if you have a tutorial scheduling conflict, but generally that will be to reiterate the above advice. Note again that there are no tutorials or assignments during the first week of classes! **To summarize, here are a few key points to keep in mind regarding tutorials:**

1. **There are NO tutorials the first week of classes (tutorials start the week of September 19).**
2. **Attendance is mandatory and attendance WILL be taken.**
3. **You alone are responsible for the timing of your tutorial slot. If you need to change, you need to monitor ROSI regularly to see if a slot opens for you.**
4. **Assignments are always due at 4pm, 8 days following the "Intro" tutorial for a particular assignment. This is slightly different for assignment #2 only, which is due 15 days following your "Intro" tutorial, due to the timing of the Thanksgiving holiday. Absolutely no late assignments will be accepted. A white sheet with the words 4pm will be dropped in each assignment drop box at the exact due date and time. If your assignment is on top of this sheet, it will not be marked. If your assignment will be late due to a documented medical reason, you should contact your TA as early as possible. Any assignment, for any reason, handed in more than 5 business days late, will not be accepted for marking. Note that this rule applies as well to students who decide to add the course later in the semester. ALL students, regardless of when you are officially entered into the class, are responsible for all aspects of the course. I realize this is a strict policy, but this is the only fair means of evaluating all students in the course.**
5. **Make sure you hand your assignment in to the right place. The drop box has numerous slots in it. Your particular tutorial time and TA's name will be above your slot. This is exactly where you hand in your assignment.**
6. **Plagiarism (cheating) will not be tolerated. You should refer to the Student Code of Conduct near the end of this syllabus.**

Tutorial and Assignment Schedule for Fall 2010:

Tutorial/ Assignment #	Content	Intro Tutorial Week of:	Follow-up Tutorial Week of:
1	Library/Research Skills	Sept. 19	Sept. 26
2	Mapping Skills	Oct. 3	Oct. 17
3	Quantitative Skills 1: Significant Digits and Units of Measure	Oct. 24	Oct. 31
4	Quantitative Skills 2: Problem Solving in Environmental Science	Nov. 7	Nov. 14
5	Quantitative Skills 3: Presenting and Interpreting Scientific Data	Nov. 21	Nov. 28

IMPORTANT MID-TERM POLICIES

The 2-hour mid-term examination will be held during the mid-term period, exact time, date and room(s) to be announced in class when this information becomes available. The mid-term exam will be entirely multiple choice and will be worth 25% of your 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), 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. Note that Professor Mitchell will assess the validity of your having missed the mid-term. Do not leave your marks to something subjective!

INTERACTION WITH THE PROFESSOR AND TEACHING ASSISTANTS

I (Professor Mitchell) very much enjoy speaking with students face-to-face, 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 (honestly!), so please do not be afraid to come to see me in person. Your TAs also have office hours and you should take advantage of these for questions pertaining to your laboratory assignments. Note that the TAs are not required to be intimately familiar with lecture material. If

you attend all lectures and all tutorials 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. 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, if necessary. 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 (even if not expressly covered in a particular lecture!), EVERYTHING that I say in lecture**. I duly understand that this sounds like a lot, but this is the level of academic commitment that is expected of you. 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. My advice is that you annotate the posted lecture notes with your own notes during lecture.

Email policy: For questions pertaining to the course and assignments, students should directly ask the Professor or your TA or preferably, post the question on the Blackboard "Discussion Board". 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 and please do check the Discussion Board to see if your question is already answered; oftentimes this is the case. All emails should be sent via a ".utsc.utoronto.ca" or ".utoronto.ca" email address to ensure a response. **Please note that due to the extremely large number of students I teach during the fall term (>500), I will only respond to emails from students in this course on Mondays and Thursdays between 4 and 5 pm. As such, there is no such thing as an "emergency" email. If it is a true emergency, come to my office. Note alternatively that I will have at least one TA check the Blackboard Discussion Board daily during weekdays throughout the term, meaning Blackboard is your best bet for a <24-hour response time.**

BLACKBOARD INFORMATION

Logging in to your Blackboard Course Website
Like many other courses, EESA01 uses Blackboard for its course website. To access the EESA01 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 EESA01 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: 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. I am fine with you annotating notes directly on your laptops, however, I will under no circumstances tolerate other uses of your computers during lecture. 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, 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.

TEXTBOOK READING

For those very keen to get going on reading, the following chart will let you know what chapters from the textbook should be read for which lecture. It is in your best interest to already have read the chapter *prior* to coming to class. I will inform the class of any deviations from this list as they come up.

Lecture Date	Associated Chapter(s) in Textbook
Sept. 12	1
Sept. 19	6
Sept. 26	5
Oct. 3	11, 13
Oct. 10	NO CLASS
Oct. 17	11
Oct. 24	7
Oct. 31	8, 9
Nov. 7	13, 14
Nov. 14	15
Nov. 21	16, 17
Nov. 28	21
Dec. 1	--

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. I am not oblivious to the fact that most students will have little previous experience with Environmental Science, or science in general. As long as you are willing to learn, I am willing to provide you with whatever resources you require to learn. 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 400+ 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 your 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, so following these rules will provide an enriching learning experience for everyone.