ENV200H: Assessing Global Change: Science and the Environment
Winter 2021

Last Updated: January 6, 2021

Time: Tuesdays and Thursdays, 11:00 – 12:00 pm
Location: online synchronous with recordings uploaded after lecture
Tutorials: Four tutorials are scheduled through the term: week of Feb 1, Mar 1, Mar 15, Mar 29. The tutorial schedule can be found alongside the lecture and reading schedule later in this syllabus.
Instructor: Karen Ing, Associate Professor, Teaching Stream, School of the Environment; ES2098, 416-978-4863; karen.ing@utoronto.ca

Teaching Assistants:
Course administration, such as request for extensions on assignments or missed tests should be addressed to the Head TA (Susan Frye, s.frye@mail.utoronto.ca).

Susan Frye (Head TA)	s.frye@mail.utoronto.ca
Serra Buchanan	serrawillow.buchanan@mail.utoronto.ca
Mark Horsburgh	mark.horsburgh@utoronto.ca
Jasmine Williams	jasmine.williams@mail.utoronto.ca
TBA	

Course website: Quercus (https://q.utoronto.ca)

Office Hours: Immediately following class.

Required Text:

There is no required hardcopy textbook for ENV200H. Instead resources will be drawn from a variety of open sources, and links to any relevant readings can be found in the lecture reading schedule in the syllabus or may be updated and posted prior to each associated lecture.

A backbone to the course materials are the units drawn from:
Freedman, Bill. 2018. Environmental Science. A Canadian Perspective. Dalhousie Libraries. Digital Editions.
https://digitaleditions.library.dal.ca/environmentalscience/
OR
https://ecampusontario.pressbooks.pub/environmentalscience/

These readings will appear in the lecture & reading schedule simply identified by their Chapter # and title.

Marking Scheme

Tutorial Assignments x 4, 15% each	Feb 7, Mar 7, Mar 21, Apr 4	60%
Tutorial Attendance & Participation		5%
Midterm, in-class	Feb 25th	15%
End of term test	April Exam Period	20%

Course Subject

Global environmental change, such as climate change, loss of species diversity, land transformation, and resource overexploitation, are daunting challenges currently confronting humanity. These changes are primarily precipitated by anthropogenic activities which are impacting the planet's ability to self regulate or persist. To better address these challenges we need to assess and understand the magnitude and consequences of these changes through a systematic acquisition of knowledge.

It is from this basis that ENV200 was designed. ENV200H is a course about science and what it means to study something from a scientific perspective. ENV200H is also a course about the environment. Taken together, environmental science means using scientific protocols, *i.e.* seeking valid, generalizable knowledge, to further our understanding of the natural world as well as acquiring knowledge about our impacts on that world.

This course is therefore designed to meet the following educational objectives.

Educational objectives
- an understanding/appreciation of how science helps us understand our world and can assist in refining a life-long environmental ethic
- recognition and understanding of the impacts of the changing global environment, e.g. increasing atmospheric CO_2, alterations to hydrologic cycle, species diversity loss, and land transformation.
- recognition people as part of ecosystems rather than a part from ecosystems
- Ability to think critically to evaluate sources of information for scientific credibility to enable students to assess the degree of future environmental perturbations

Tutorials
Mastering complex knowledge from outside your own discipline, as students are being asked to do in this science distribution course, is very challenging. Therefore four tutorials have been incorporated into the course structure as a forum in which students will work to further their understanding and application of the role of science in environmental science using four different exercises.

- Tutorial 1 - Science in the media (week of Feb 1st)
- Tutorial 2 - Tragedy of the Commons (week of Mar 1st)
- Tutorial 3 – Biodiversity (week of Mar 15th)
- Tutorial 4 - Natural capital (week of Mar 29th)

Each tutorial is designed to illustrate a specific concept that is relevant to the course. There is an assignment associated with each tutorial, which is due by the following Sunday (Feb 7, Mar 7, Mar 21, Apr 4). Each assignment is worth 15%. In addition, there is an additional 5% for overall participation. Students can only attend and get credit for attending the tutorial section in which they are formally registered and assigned, unless permission is granted beforehand by the head TA.

The tutorial assignments are designed to guide students through the process of how to critically approach and analyze new sources of information. Readings are assigned within each tutorial, chosen to illustrate specific relevant concepts. The associated assignments are usually designed to evaluate the students' ability to process new information. Therefore though the answers to the worksheet questions are embedded in the assigned readings, students are expected to generate a response in their own words and not simply cut and paste the response from the assigned reading.

Copying the response from the reading does not demonstrate understanding of the concept. Instead we are looking for the student's ability to construct a response based on their understanding of the reading. Equally important is that copying text word for word is a violation of the University's Academic Code of Behaviour, as described in more detail below which clearly identifies that it is unacceptable to submit work for credit by copying material word-for-word from a source.

It is also unacceptable in these assignments to respond to the questions by simply putting source text in quotations and citing the original article. Simply extracting the answer from the source text word for word does not represent any processing of the new material.
Though this may at first seem a difficult task since the source document has provided the answer, this is a skill students should develop since it then clearly demonstrates student understands the concepts and is able to express them in their own words.

Tutorials are held on the weeks noted on the lecture & tutorial schedule below. They begin on the week of February 1st. Most of you will have already registered for a tutorial section, *i.e.* a particular day and time. However, there could be a number of tutorial groups meeting during this time slot led by different TAs. You will receive an email announcement prior to each tutorial with specifics on how to log onto your specific tutorial session.

COURSE POLICIES

The University of Toronto is committed to equity, human rights and respect for diversity. All members of the learning environment in this course should strive to create an atmosphere of mutual respect where all members of our community can express themselves, engage with each other, and respect one another's differences. UofT does not condone discrimination or harassment against any persons or communities.

Technology Requirements
Specific guidance from the U of T Vice-Provost, Students regarding student technology requirements is available here:
https://www.viceprovoststudents.utoronto.ca/covid-19/tech-requirements-online-learning/

Advice for students more broadly regarding online learning is available here:
https://onlinelearning.utoronto.ca/getting-ready-for-online/

We will be using BB collaborate and Zoom for online teaching & learning in this course. Lectures delivered via BB collaborate will be livestreamed and a video will usually be posted and accessible via the course Quercus website within 48hrs. Tutorials will be offered using BB collaborate or Zoom and will not be recorded or posted except under extenuating circumstances.

This course requires the use of computers, and of course sometimes things can go wrong when using them. You are responsible for ensuring that you maintain regular backup copies of your files, use antivirus software (if using your own computer), and schedule enough time when completing an assignment to allow for delays due to technical difficulties. Computer viruses, crashed hard drives, broken printers, lost or corrupted files, incompatible file formats, and similar mishaps are common issues when using technology, and are not acceptable grounds for a deadline extension.

Lectures/Copyright
This course, including your participation, will be recorded on video and will be available to students in the course for viewing remotely and after each session.
Course videos and materials belong to your instructor, the University, and/or other sources depending on the specific facts of each situation, and are protected by copyright. Do not download, copy, or share any course or student materials or videos without the explicit permission of the instructor.

For questions about recording and use of videos in which you appear please contact your instructor.

Tutorials
Tutorial assignments should be submitted online by the Sunday following your tutorial (Feb 7, Mar 7, Mar 21, Apr 4).

Submission of assignments:
We will be using Turnitin.com within the online assignment function in Quercus for submission of the written assignments in this course. Normally, students will be required to submit their course assignments to **Turnitin.com** for review of textual similarity and detection of possible plagiarism. In doing so, students will allow their essays to be included as source documents in the Turnitin.com reference database, where they will be used solely for the purpose of detecting plagiarism. The terms that apply to the University's use of the Turnitin.com service are described on the Turnitin.com web site.

If a student does not wish to participate in Turnitin, the student MUST advise the head TA immediately as alternate arrangements for screening the assignment must be arranged.

To avoid late penalties assignments must be submitted to the Quercus Assignment function before **midnight on the posted due date.**

When submitting your assignment on Quercus, the file should be saved in a single Word or pdf file, with an extension of .doc, .docx, .rtf, or .pdf. The title of your file should follow the format: "LastnameFirstname.doc"

In formatting your assignment it should:

- Include the following information on the front page: the assignment title (feel free to be creative, but representative), the course title and number, the instructor's name, the TA's name, your name and student number

Late penalties

The late penalty on all assignments will be 2.5% of the assignment grade per day late, including weekends and will only be waived with either the Absence Declaration Tool on ACORN or the accompaniment of a completed official University of Toronto **Verification of Student Illness or Injury Form** which can be found at:

http://www.illnessverification.utoronto.ca/.

Please note that supporting documentation must cover the period of time you missed, e.g. the week before the assignment/essay is due, etc. and must supply sufficient detail and appropriate support to warrant any special consideration.

Assignments will NOT be accepted one week past the due date even if accompanied by a medical certificate unless prior approval has been obtained from the course instructor or head TA.

Graded Material

Any disputes or questions on graded material must be brought to the attention of the TA or instructor within 2 weeks of return or posting, otherwise will be considered final.

Tests

For students who miss a regularly scheduled test (February 25th, 2021 or during the April exam period), the head TA must be notified within 48 hours and a completed University of Toronto Illness Verification Form or a completed Absence Declaration on ACORN must be presented within a week before any special consideration (such as a deferred test) will be considered.

Academic Integrity

The following is taken from the Faculty of Arts and Science Academic Integrity website (http://www.artsci.utoronto.ca/osai/students):

Academic integrity is fundamental to learning and scholarship at the University of Toronto. Participating honestly, respectfully, responsibly, and fairly in this academic community ensures that the U of T degree that you earn will be valued as a true indication of your individual academic achievement, and will continue to receive the respect and recognition it deserves.

Familiarize yourself with the University of Toronto's *Code of Behaviour on Academic Matters* (http://www.governingcouncil.utoronto.ca/policies/behaveac.htm). It is the rule book for academic behaviour at the U of T, and you are expected to know the rules. Potential offences include, but are not limited to:

In papers and assignments:

- Using someone else's ideas or words without appropriate acknowledgement.
- Copying material word-for-word from a source (including lecture and study group notes) and not placing the words within quotation marks.
- Submitting your own work in more than one course without the permission of the instructor.
- Making up sources or facts.
- Including references to sources that you did not use.
- Obtaining or providing unauthorized assistance on any assignment including
  - working in groups on assignments that are supposed to be individual work,
  - having someone rewrite or add material to your work while "editing".
- Lending your work to a classmate who submits it as his/her own without your permission.

On tests and exams:

- Using or possessing any unauthorized aid, including a cell phone.
- Looking at someone else's answers
- Letting someone else look at your answers.
- Misrepresenting your identity.
- Submitting an altered test for re-grading.

Misrepresentation:

- Falsifying or altering any documentation required by the University, including doctor's notes.
- Falsifying institutional documents or grades.

The University of Toronto treats cases of academic misconduct very seriously. All suspected cases of academic dishonesty will be investigated following the procedures outlined in the *Code*. The consequences for academic misconduct can be severe, including a failure in the course and a notation on your transcript. If you have any questions about what is or is not permitted in this

course, please do not hesitate to contact me. If you have questions about appropriate research and citation methods, seek out additional information from me, or from other available campus resources like the U of T Writing Website. If you are experiencing personal challenges that are having an impact on your academic work, please speak to me or seek the advice of your college registrar.
See also the handout "How Not to Plagiarize," Margaret Proctor, 2009, available online at http://www.writing.utoronto.ca/advice/using-sources/how-not-to-plagiarize

ACCESSIBILITY NEEDS
The University of Toronto is committed to accessibility: if you require accommodations for a disability, or have any other accessibility concerns about the course, please contact Accessibility Services as soon as possible.

disability.services@utoronto.ca or *http://studentlife.utoronto.ca/accessibility* .

ADDITIONAL SERVICES and SUPPORT
The following are some important links to help you with academic and/or technical service and support

- General student services and resources at Student Life
- Full library service through University of Toronto Libraries
- Resources on conducting online research through University Libraries Research
- Resources on academic support from the Academic Success Centre
- Learner support at the Writing Centre

Information for Technical Support/Quercus Support

Lecture & Tutorial Schedule (last update January 4, 2021)

Date	Lecture Topic and Readings	Tutorial
T Jan 12	Course Intro	
R Jan 14	Science as Knowledge Protocol, Environmental Science	
T Jan 19	Population & Sustainability I	
R Jan 21	Population & Sustainability II	
T Jan 26	Earth's Environmental Systems I	
R Jan 28	Earth's Environmental Systems II	
T Feb 2	The Atmospheric Environment I	1
R Feb 4	The Atmospheric Environment II	1
T Feb 9	Ozone; Climate Change	
R Feb 11	Climate Change	
T Feb 16	**Reading Week**	
R Feb 18	**Reading Week**	
T Feb 23	Climate Change	
R Feb 25	**Midterm**	
T Mar 2	Ecosystems	2
R Mar 4	Ecosystems	2
T Mar 9	Evolution and Natural Selection	
R Mar 11	Evolution and Natural Selection	
T Mar 16	Biodiversity, Biogeography, Conservation biology	3
R Mar 18	Biodiversity, Biogeography, Conservation biology	3
T Mar 23	Land Uses - Agricultural Systems	
R Mar 25	Land Uses - Agricultural Systems	

T Mar 30	Land Uses - Agricultural Systems	4
R Apr 1	Aquatic Resources - Freshwater Ecosystems	4
T Apr 6	Aquatic Resources – Freshwater Ecosystem/Ocean	
R Apr 8	Aquatic Resources - Ocean Ecosystems	

Important Dates
Jan 11 – start of term
Jan 24 – last day to enrol in S courses
Feb 15 – Family Day
Feb 15-19 – Reading Week
Apr 9 – classes end
Apr 13-23 – exam period