ENV200H: Assessing Global Change: Science and the Environment
Winter 2024

Last Updated: January 4, 2024

Time: Tuesdays and Thursdays, 11:00 – 12:00 pm
Location: Tuesdays in MS (Medical Science Building @ 1 King's College Circle)
                  Thursdays in OI (OISE Building @ 256 Bloor St. W.)
                  Specific room information can be located in your timetable
Tutorials: Four tutorials are scheduled through the term: week of Jan 22, Feb 5, Mar 4, Mar 18. 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; 416-978-4863; karen.ing@utoronto.ca

Teaching Assistants:
Tutorial specific issues should be directed to your assigned TA, all other course administration issues such as missed tests should be addressed to the Head TA.

Coral Chell (Head TA)	coral.chell@mail.utoronto.ca
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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 Chapters 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, 10% each	Jan 28, Feb 11, Mar 10, Mar 24	40%
Tutorial Attendance & Participation		5%
Midterm (online during class time)	Feb 15th	15%
Final Exam	April Exam Period	40%

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 <u>about</u> 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 – Information and Scientific Literacy (week of Jan 22nd)
- Tutorial 2 – Sustainable Resource Sharing (week of Feb 5th)
- Tutorial 3 – Biodiversity (week of Mar 4th)
- Tutorial 4 - Natural capital (week of Mar 18th)

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 (Jan 28, Feb 11,

Mar 10, Mar 24).   Each assignment is worth 10%.   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 your 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 designed to evaluate the students' ability to process new information. Therefore 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 January 22nd. You should have registered for a tutorial section on ACORN as you signed up for the course. You should attend the tutorial timeslot in which you are officially enrolled since there could be a number of tutorial groups meeting during this time slot led by different TAs, and you will not receive credit for attendance unless you are on the official classlist for that location.

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

Lectures and tutorials will be in-person, but we may be using Zoom on occasion for online teaching & learning in this course.

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
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.

Use of AI
In this course, you may use generative artificial intelligence (AI) tools such as ChatGPT as learning aids and to help complete assignments. Generative AI may produce content which is incorrect or misleading, or inconsistent with the expectations of this course. These tools may even provide citations to sources that don't exist—and submitting work with false citations is an academic offense.

Generative AI is not required to complete any aspect of this course, and we caution you to not rely entirely on these tools to complete your coursework. Instead, we recommend treating generative AI as a supplementary tool only for exploration or drafting content. Ultimately, you (and not any AI tool) are responsible for your own learning in this course, and for all the work you submit for credit. It is your responsibility to critically evaluate the content generated, and to regularly assess your own learning independent of generative AI tools. Overreliance on generative AI may give you a false sense of how much you've actually learned, which can lead to poor performance on the midterm test or final exam, in later courses, or in future work or studies after graduation.

Tutorials
Tutorial assignments should be submitted online by the Sunday following your tutorial (Jan 28, Feb 11, Mar 10, Mar 24).

Tutorial related queries such as assignment extensions should be directed to your assigned TA.

Submission of assignments:
We will be using a plagiarism detection program 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 essays to the University's plagiarism detection tool website for a review of textual similarity and detection of possible plagiarism. In doing so, students will allow their material to be included as source documents in the University's plagiarism detection tool 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 University's plagiarism detection tool service are described on the Centre for Teaching Support & Innovation web site (https://uoft.me/pdt-faq).

If a student does not wish to submit to the online plagiarism tool, 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 file, with an extension of .doc, .docx, .rtf, or .pdf.

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 the Absence Declaration Tool on ACORN.

Please note the declaration must cover the period of time you missed, e.g. the week before the assignment/essay is due, etc.

Assignments will NOT be accepted one week past the due date even if accompanied by an absence declaration form unless prior approval has been obtained from your TA, the head TA, or the course instructor.

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 the midterm on February 15th, 2024, the head TA or instructor must be notified within 48 hours and a completed Absence Declaration on ACORN must be presented within a week before any special consideration (such as a deferred test) will be considered.
The final exam will be administered by the Faculty and students will need to contact their college registrars if they need to make alternate arrangements.

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
  o working in groups on assignments that are supposed to be individual work,
  o 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, 2024)

Date	Lecture Topic and Readings	Tutorial
T Jan 9	Course Intro	
R Jan 11	Science as Knowledge Protocol, Environmental Science	
T Jan 16	Population & Sustainability I	
R Jan 18	Population & Sustainability II	
T Jan 23	Earth's Environmental Systems I	1
R Jan 25	Earth's Environmental Systems II	1
T Jan 30	The Atmospheric Environment I	
R Feb 1	The Atmospheric Environment II	
T Feb 6	Ozone; Climate Change	2
R Feb 8	Climate Change	2
T Feb 13	Climate Change	
R Feb 15	**Midterm**	
T Feb 20	**Reading Week**	
R Feb 22	**Reading Week**	
T Feb 27	Ecosystems	
R Feb 29	Ecosystems	
T Mar 5	Evolution and Natural Selection	3
R Mar 7	Evolution and Natural Selection	3
T Mar 12	Biodiversity, Biogeography, Conservation biology	
R Mar 14	Biodiversity, Biogeography, Conservation biology	
T Mar 19	Land Uses - Agricultural Systems	4
R Mar 21	Land Uses - Agricultural Systems	4
T Mar 26	Land Uses - Agricultural Systems	

R Mar 28	Aquatic Resources - Freshwater Ecosystems	
T Apr 2	Aquatic Resources – Freshwater Ecosystem/Ocean	
R Apr 4	Aquatic Resources - Ocean Ecosystems	

Important Dates
Jan 8 – start of term
Jan 21 - last day to enroll in S courses
Feb 19 – Family Day
Feb 19-23 – Reading Week
Mar 11 - last day to drop S courses
Apr 5 – classes end
Apr 10-30 – exam period