

# ENV200H: Assessing Global Change: Science and the Environment Winter 2017

Last Updated: January 3, 2017

- Time:** Tuesdays and Thursdays, 11:00 – 12:00 pm  
**Location:** MS 2158 – Medical Science Auditorium  
**Tutorials:** Each student will attend four tutorials each semester. 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;  
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## Teaching Assistants:

|                           |  |
|---------------------------|--|
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*Course website:* Blackboard (accessible via <http://portal.utoronto.ca>)

**Office Hours:** by appointment. But will usually be available for questions immediately following class in the lecture room.

## 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<sub>2</sub>, 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 Jan 24<sup>th</sup>)
- Tutorial 2 - Tragedy of the Commons (week of Feb 14<sup>th</sup>)
- Tutorial 3 – Biodiversity (week of Mar 7<sup>th</sup>)
- Tutorial 4 - Natural capital (week of Mar 21<sup>st</sup>)

Each tutorial is designed to illustrate a specific concept that is relevant to the course. Attendance is required and there is an assignment associated with each tutorial, which is due **in** tutorial. Each assignment is worth 10% and each student need only complete **3 of the 4** assignments or the **best 3 of 4** will be counted towards the final mark. Please note that tutorial assignments will **NOT** be accepted unless the accompanying tutorial is attended. In addition, there is an additional 5% for overall participation.

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 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 24<sup>th</sup>. Most of you will have already registered for a tutorial section, *i.e.* a particular day and time. However, there could be four tutorial groups meeting during this time slot (at different locations with different TAs). You can find out where your particular tutorial meets (and the identity of your TA) shortly after we reach the last date to add a class (after Jan 18<sup>th</sup>, and this information will be posted on the course Blackboard site.

### **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 will be posted prior to each associated lecture.

However a backbone to the course materials are the units drawn from The Habitable Planet website developed by the Annenberg Learner in 2007 (<http://www.learner.org/courses/envsci/index.html>). These readings will appear in the lecture & reading schedule simply identified by their Unit # and title.

### **Marking Scheme**

|  |                     |     |
|--|---------------------|-----|
| Midterm, 45 min in-class   | Feb 9 <sup>th</sup> | 25% |
| Tutorial Assignments, 10% each (best 3 out of 4) throughout term |                     | 30% |
| Tutorial Participation   |                     | 5%  |
| Final Exam   | Apr exam period     | 40% |

### **COURSE POLICIES**

All tutorial assignments are due **in tutorial** and cannot be submitted without accompanying tutorial attendance.

No late assignments will be accepted, since students need only complete 3 of 4 tutorial assignments. If more than one assignment opportunity is missed, a UofT Student Medical Certificate must be submitted for the missed tutorials before any special consideration will be considered.

For students who miss the regularly scheduled midterm on February 9<sup>th</sup>, 2017, the head TA must be notified within 48 hours and a completed University of Toronto Medical Certificate must be presented within a week before any special consideration (such as a deferred midterm) will be considered.

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.

## Accessibility Needs

The University of Toronto is committed to accessibility. If you require accommodations for a disability, or have any accessibility concerns about the course, the classroom or course materials, please contact Accessibility Services as soon as possible: [disability.services@utoronto.ca](mailto:disability.services@utoronto.ca) or <http://studentlife.utoronto.ca/accessibility> .

## 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>

## Lecture & Tutorial Schedule (last update Dec 28, 2016)

| Date     | Lecture Topic and Readings                           | Tutorial |
|----------|--|----------|
| R Jan 5  | Course Intro   |          |
| T Jan 10 | Science as Knowledge Protocol, Environmental Science |          |
| R Jan 12 | Population & Sustainability I                        |          |
| T Jan 17 | Population & Sustainability II                       |          |
| R Jan 19 | Earth's Environmental Systems I                      |          |
| T Jan 24 | Earth's Environmental Systems II                     | 1        |
| R Jan 26 | The Atmospheric Environment I                        | 1        |
| T Jan 31 | The Atmospheric Environment II                       |          |
| R Feb 2  | Ozone; Climate Change                                |          |
| T Feb 7  | Climate Change                                       |          |
| R Feb 9  | <b>Midterm</b>                                       |          |
| T Feb 14 | Ecosystems   | 2        |
| R Feb 16 | Ecosystems   | 2        |
| T Feb 21 | <b>Reading Week</b>                                  |          |
| R Feb 23 | <b>Reading Week</b>                                  |          |
| T Feb 28 | Evolution and Natural Selection                      |          |
| R Mar 2  | Evolution and Natural Selection                      |          |
| T Mar 7  | Biodiversity, Biogeography, Conservation biology     | 3        |
| R Mar 9  | Biodiversity, Biogeography, Conservation biology     | 3        |
| T Mar 14 | Land Uses - Agricultural Systems                     |          |
| R Mar 16 | Land Uses - Agricultural Systems                     |          |
| T Mar 21 | Land Uses - Agricultural Systems                     | 4        |
| R Mar 23 | Aquatic Resources - Freshwater Ecosystems            | 4        |
| T Mar 28 | Aquatic Resources – Freshwater Ecosystem/Ocean       |          |
| R Mar 30 | Aquatic Resources - Ocean Ecosystems                 |          |
| T Apr 4  | Urban Issues – Getting to Tomorrow                   |          |

### Important Dates

Jan 5 – start of term

Jan 18 - last day to add or make section changes to S section code courses

Feb 20 – Family Day

Feb 21-24 – Reading Week

Mar 13 - last day to cancel S section code courses without academic penalty; last day to add or remove a [CR/NCR option](#) for S section code courses

Apr 5 – classes end

Apr 10-28 – exam period