ENV337H1S – Human Interactions with the Environment
Winter 2019

Last Updated: December 20, 2018

Lecture: Mondays 10am – noon
(or until 1pm when having guest lecturers/other activities)
Location: RS208
Tutorials: Wednesdays: 10-11am and 11am – noon; KP113. Four tutorials are scheduled through the term (with complementary meetings/progress presentations).

Instructor: Carlos Avendano, office ES2104; carlos.avendano@utoronto.ca
Office Hours: Thursdays 1-2pm, or usually available after lectures.

Teaching Assistant: Susan Frye, ES2029; s.frye@mail.utoronto.ca

Required Text:
There is no required hardcopy textbook for ENV337H. Readings and other sources are indicated in the lecture schedule. Readings can be acquired through the UofT Library online catalogue.

Course Evaluation
Midterm, 60 min in-class February 25th 10%
Final Exam (open book) April exam period 30%
Creativity Video “World Water Day” March 15th 5%
Tutorial Projects: 50%
  Biodiversity Assessment (10%) February 6th
  Water Footprint Estimation (15%) March 6th
  Research Proposal (10%) March 27th
  Local Project (15%) April 8th
Feedback papers 5%

Students will be asked to submit three Feedback Papers (Jan 31, Mar 7, and Mar 25), where they will include their reflections regarding a consecutive series of lectures and associated readings.

Introduction and Learning Objectives:
The impact of 7 billion people on the planet is enormous and challenges future generations. The interconnected systems of the planet means that as humans interact with their surrounding environments, they too will be influenced and impacted in turn. What are these impacts today and in future? What solutions and tools are available? What can we learn from environmental and cultural history? Using an integrated and interdisciplinary systems approach, we explore problems and solutions to the earth’s limits to growth.

The course introduces students to Earth Systems interactions, and their limits to growth of human systems using an analytical perspective and, most importantly, how to critically analyze, quantify and solve problems arising from meeting these limits to growth.
Our learning objectives are to:
1. Familiarize you with Earth Systems, environmental processes, and ecological issues arising from human activities.
2. Understand the interconnectedness of these systems to each other and to human well-being.
3. Learn to integrate disparate issues with roots in natural sciences and social sciences, and to develop solutions to these issues.
4. Improve your critical thinking, analytical abilities and problem solving skills.
5. Improve your ability to conduct research, assemble information, and communicate the results of your research.

Lecture Topics and Tutorial Schedule

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<th>Wk</th>
<th>Date</th>
<th>Lecture Topic and Readings Schedule</th>
<th>Tutorials</th>
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<tr>
<td>1</td>
<td>Jan 7</td>
<td>Introduction.</td>
<td>Tut No. 1. The Water Footprint</td>
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| 2  | Jan 14| Are we in the Anthropocene? Human dominated planet.  
| 4  | Jan 28| Planetary Functioning: Have we transgressed planetary thresholds? What are the Planetary Boundaries?  
http://stockholmresilience.org/research/planetary-boundaries.html | Feedback paper No. 1 Due Jan 31 |
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<th>Date</th>
<th>Lecture Topic and Readings</th>
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<tr>
<td>5 Feb 4</td>
<td><strong>Ecosystem theory</strong>: Disturbance and Resilience.</td>
<td>Tut No. 3. Research proposal: Socio-ecological Systems</td>
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<td>6 Feb 11</td>
<td><strong>Population growth</strong>: Humans through the Quaternary Period. Consumption thresholds.</td>
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<td>Toth, G., Szigeti, C., 2016. The <strong>historical ecological footprint</strong>: From over-population to over-consumption. Ecological Indicators. 60, 283–291. <a href="https://ourworldindata.org/world-population-growth">https://ourworldindata.org/world-population-growth</a></td>
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<td>7 Feb 18</td>
<td><strong>Reading Week</strong></td>
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<td>8 Feb 25</td>
<td><strong>Mid-term</strong></td>
<td>Tut No. 4. Bottom-top proposal.</td>
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<td>9 Mar 4</td>
<td><strong>Historical human interactions with the environment</strong>: The Maya Civilization case study. Was there really a socio-ecological collapse? Socio-ecological resilience cases.</td>
<td>Feedback paper No. 2 Due Mar 7</td>
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<td>10 Mar 11</td>
<td><strong>Human impacts on the environment</strong>: What has happened since the Industrial Revolution?</td>
<td>World Water Day Video Due Mar 15</td>
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| 11 Mar 18| **Ecosystem Services:** Conservation Biology in a dynamic world. Resilience principles.  
[http://www.worldwaterday.org](http://www.worldwaterday.org)                                                                 |
Important Dates
(http://www.artsci.utoronto.ca/current/course/timetable/1718_fw/2018_winter_dates)

Jan 7 – Classes begin in S courses.
Jan 17 – Waiting lists for S section code courses turned off at end of day.
Jan 20 – Last day to add or make section changes to S section code courses.
Feb 18 – Family Day – University closed.
Feb 18-22 – Winter Reading Week – no classes.
Mar 17 – 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 – Winter term classes end; last day to request LWD from S code courses.
Apr 6-30 – Examination period.
Apr 19 – Good Friday – University closed.

COURSE POLICIES

Regarding attendance for mid-term:
For students who miss the regularly scheduled midterm on February 26th, 2018, the instructor 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.

Submission of tutorial projects:
It will be announced in advance whether tutorial projects are due in tutorial or in class (unless indicated otherwise).

A UofT Student Medical Certificate must be submitted for a missed tutorial before any special consideration 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.

We will be using Turnitin.com for submission of project reports in this course. Normally, students will be required to submit their reports to Turnitin.com for review of textual similarity and detection of possible plagiarism. In doing so, students will allow their reports 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 instructor immediately as alternate arrangements for screening the assignment must be arranged.

To avoid late penalties the essay assignment must be submitted to the Turnitin.com site before midnight of reports due dates. You will need to visit the Turnitin.com website and follow student instructions to submit your reports for vetting. You will be supplied with the code and password to identify the appropriate course to which the assignment should be submitted.
Formatting of reports for the different project reports will be specified during tutorials.

**Late penalties on reports or video**
The late penalty will be 2.5% of the assignment grade per day late, including weekends and will only be waived with 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 the certificate must cover the period of time you missed, e.g. the week before the assignment is due, etc. and must supply sufficient detail and appropriate support to warrant any special consideration.

**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 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