University of Toronto Scarborough Department of Physical and Environmental Sciences Introduction to Environmental Studies ESTB01H3 Wednesday 1-3 pm, MW-160, Fall 2018

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Course Description

This course is designed to provide a strong interdisciplinary focus on environmental issues as they exist within a socioeconomic, institutional, political and cultural context. The orientation of the course is pragmatic in the sense that it is concerned with the use of proactive action for dealing with environmental issues. As such, we will lead you towards a broad understanding of the tools, methods and resources that are employed in 'solving' environmental problems, but we will do so within the context of the limitations of these methods and of scientific knowledge more generally.

Environmental issues have many sides including scientific, social, cultural, ethical, political, and economic; and comprise multiple stakeholders promoting divergent points of view and interests. The presumption that we can proactively 'solve' such problems suggests that we first possess a fundamental understanding of the nature of these problems. To attain this comprehension, we will provide students with an overview of the historical development of our representations (i.e. models) of the environment, humanity, and their interactions. Against this historical backdrop we will then consider a number of modern environmental challenges in the form of case studies.

Course Objectives

Upon completion of this course, students will have an enhanced sense of the different, yet complementary perspectives on the environment, sustainability, environmental problems and their solutions to be found in the natural and social sciences. The student will have a solid understanding of what environmental studies are and what the environmental studies major program entails in a substantive sense. Broad course objectives include an awareness of the following fundamental themes associated with environmental problem solving:

1. It is critical that students first comprehend the fundamental complexity and interconnectedness of environmental issues. Whether defined as wicked, complex or hyper-complex, the first step in understanding the nature of human interaction with the environment is an awareness of the depths of uncertainty surrounding environmental issues.

- 2. As an extension of the first objective, we will examine the root drivers of human-induced environmental change (e.g. climate change), and the fundamental dilemma of 'proactive' human agency with respect to environmental issues. In other words, we will examine whether or not there is such a thing as directed environmental agency.
- 3. Students will be exposed to what might be considered the leading edge of international environmental problem-solving. There is a plethora of methodologies that are currently in use to deal with environmental issues. We will provide a preliminary overview of such methods, including their individual advantages and limitations. We will also introduce students to reflexive methods associated with what might be called the science of science.
- 4. Finally, we will touch upon a range of case studies to highlight fundamental differences in approaches to addressing environmental issues. Drawing upon the extensive partnerships of the New Brunswick Climate Change Research Collaborative and the UTSC 'Science in Society Laboratory' (e.g. *our collaborators have included Toronto Regional Conservation Authority, WWF, Carolinian Canada, METROLINX; GNB; NRCAN-CFS; USDA; EC; SACiWaters; Women and Environment, Nepal; York University; University of Waterloo; University of Moncton; Canadian Rivers Institute; ARPFNB; University of New Brunswick; Université du Québec à Montréal; Institut National de la Recherche Scientifique ... etc), we will seek to understand the functional relationship between these various institutional players.*

At an individual level, particular skills will be fostered to deal with the differences in perspectives and interests that are part of environmental problem solving. Students will leave the course with specific skills including:

- Critical thinking across disciplines: identifying, explaining and synthesizing key concepts learned in class;
- Reflexivity: noticing, articulating and working with one's thought processes, and reactions in the context of reading, writing, and dialogue;
- Demonstrating what they have learned through writing: summarizing, analyzing, assessing and synthesizing class readings and films.
- Simple, analytical skills

Required Readings

Please see Table 1 for the *required* readings all of which will be made available through QUERCUS. A list of *suggested* readings is given as a means of identifying primary sources and background material – students are not directly responsible for this material but it will come up in the lectures. You are responsible for the lecture content and material; the official version of the lecture slides is posted after the lecture date. Please do not share the slides as the content is subject to copyright.

Class Attendance

Because of the nature of the material covered in class, class participation is highly recommended. Students are required to do readings before class and come prepared with questions about the readings to discuss in class. We will also be viewing four films, which will be on hold in the UTSC library. The mid-term and final exam will consist of multiple and short-answer questions, which will draw upon the lecture content as well as the films, hence students who miss class are required to view films on their own time and seek lecture notes from their classmates.

Grading Scheme

In this course you will have 3 assignments (the first of which is decomposed into 4 quizzes) a mid-term exam (in lab) and a final exam (during the exam period).

Assessments	Percentage
Assignment 1 Movie Quiz (4)	10%
Assignment 2 Literature\Interpretation\Synthesis	20%
Assignment 3 Assessment\Interpretation\Synthesis	15%
Mid-term	20%
Final exam TBD	35 %

Missed Term Work

Late assignments will be subject to a late penalty of 5% (of the total marks for the assignment) for the first day late (including weekends), and 10% every day after that. All assignments are due before the beginning of class. Assignments must be uploaded (see below).

Handing in Your Assignment:

PDF (Portable Document Format) hardcopies files of the assignments must be uploaded to QUERCUS before the beginning of class on the day that it is due. If you do not know how to create a pdf please search online for a tutorial (*https://support.office.com/en-us/article/Save-or-*

convert-to-PDF-d85416c5-7d77-4fd6-a216-6f4bf7c7c110). I do not accept assignments sent by email.

Please follow the University of Toronto procedure to be completed in order to be considered for academic accommodation for any course work such as missed tests or late assignments. Verification of Student Illness or Injury forms can be found on the Office of the Registrar's webpage (<u>http://www.illnessverification.utoronto.ca/getattachment/index/Verification-of-Illness-or-Injury-form-Jan-22-2013.pdf.aspx</u>).

Extension of Time

Students MUST submit a request for extension in ADVANCE of the deadline in order to receive a decision. For extensions of time beyond the examination period you must submit a petition through the Office of the Registrar. <u>http://www.erin.utoronto.ca/index.php?id=6988</u>

A Note on Marking:

Feel free to contact the TA at any time to discuss the requirements of this course. If you are unhappy with the mark you received on an assignment please speak to the TA directly, with a written response to the comments on your assignment.

Academic Integrity

The University treats cases of cheating and plagiarism very seriously. The University of Toronto's *Code of Behaviour on Academic Matters* (<u>http://www.governingcouncil.</u> <u>utoronto.ca/policies/behaveac.htm</u>) outlines the behaviours that constitute academic dishonesty and the processes for addressing academic offences.

Potential offences in papers and assignments include using someone else's ideas or words without appropriate acknowledgement, submitting your own work in more than one course without the permission of the instructor, making up sources or facts, obtaining or providing unauthorized assistance on any assignment. On tests and exams cheating includes using or possessing unauthorized aids, looking at someone else's answers during an exam or test, misrepresenting your identity, or falsifying or altering any documentation required by the University, including (but not limited to) doctor's notes.

Please avoid academic dishonesty, have confidence in your own ability to learn and grow academically by doing your own thinking and writing!

Accessibility

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 AccessAbility Services Office as soon as possible. I will work with you and AccessAbility Services to ensure you can achieve your learning goals in this course. Enquiries are confidential. The UTSC AccessAbility Services staff (located in SW302) are available by appointment to assess specific needs, provide referrals and arrange appropriate accommodations (416) 287-7560 or ability@utsc.utoronnto.ca

Communicating With You

The best way to communicate with me is before or after class, and during office hours. You may also email the class tutorial assistant whose email is provided. From time-to-time I will send email messages to the class to notify you of changes in schedule and opportunities that you may want to take advantage of. I can only send messages to your U of T e-mail address. If you use another account (gmail, hotmail, yahoo, etc.) make sure that your U of T email is sent to your alternate email account. Similarly, if you want to communicate with me, please send the message from your U of T address, as I will not respond to emails from other email accounts.