Environmental decision-making syllabus

University of Toronto, School of the Environment

ENV 1001: Environmental Decision-Making: Interdisciplinary Perspectives
Winter 2020: Kate Neville, Wednesday 12-3pm

Contact information
Instructor: Dr. Kate J. Neville  Email: kate.neville@utoronto.ca
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Course location
Please note that the location of the course varies by week
   Weeks without a guest speaker: tbd
   Weeks with a guest speaker: SS 2102

Course overview

Description: ENV1001 is the core course for the graduate Collaborative Specialization in Environmental Studies at the School of the Environment. In this course, we address the broad topic of “environmental decision-making,” which we understand as the challenging process of how humans engage with the natural world, and the many iterative (and sometimes invisible) decisions we make about how to organize human societies and activities. While decision-making itself is a field of study, this course takes a more flexible interpretation of the term, involving choices about, and affecting, the environment.

   With a focus on the insights from across a range of disciplines—throughout the humanities, social sciences, and natural and applied sciences—and with attention to fields beyond academia, we consider multiple perspectives on the environment. Through guest lectures, student research presentations, group projects, and individual written assignments, we explore questions of worldviews and values, conflicting interests and information, decision-making models and tools, and evaluation and adaptation.

   Students should emerge from the course with a broader set of perspectives on environmental and social challenges, enhanced communication skills across disciplines, and additional experience in diverse teams. Our central goal is to enable conversations to take place within and beyond the classroom about the challenges of human-environment relationships, with new ideas on creative and just approaches to social and political decisions.

Structure: Weekly 3-hour classes. The course is aligned with the School of the Environment’s Environment Seminar Series, so six of the twelve weeks of class will have an invited guest lecturer, and the session will be open to the public. Any changes to the schedule will be announced in class and posted on Quercus (UofT’s online course platform).

Assignments (details below)

- Participation: 10% (continuous—based on attendance & active listening and engagement)
- Individual research presentation (“3-minute thesis”): 20% (week 5)
- Guest speaker facilitation & written assignment: 40% (varying deadlines)
- Group-based decision-making assignment: 30% (week 12)
Assignment details

Participation 10%: Primarily an attendance-based grade, with quality of participation relevant. This is mainly a grade to acknowledge the work that it takes to come to class prepared and to engage actively in class discussions in weeks where you are not the discussion facilitator.

If you have to miss class, you will be expected to offer some reflections in writing in advance of class to the week’s readings and/or peer discussion papers. You can post these comments on the discussion board in Quercus. If your absence is unanticipated (unexpected illness, caretaking duties, etc.), you can post these ideas and comments on the discussion board after the class. You are, of course, welcome to post written ideas on the discussion board even if you attend class.

Three-Minute Thesis 20%: 3-minute presentations based on own research/field of study/research area of interest. More details to be provided. You will give a practice presentation in small groups in week 3, and your final (graded) presentation to the whole class in week 5.

Guest speaker facilitation 40%: Several students will be responsible for each guest lecturer's visit: this involves preparing for the visit, leading a small-group discussion after the guest lecture, and writing a response essay following the lecture. This is not a group assignment—each facilitator will prepare individually. Facilitators will:

- 1) post a 1 page (500 word max) reflection paper on the assigned readings on Quercus, with 1-2 discussion questions, by midnight Sunday ahead of the speaker's visit;
- 2) facilitate a post-guest-lecture discussion (~30-45 minute small-group discussion sections with classmates following the guest lecture);
- 3) submit a 3-4 page essay (1500-2000 words) in the format of a viewpoint, forum, or opinion/editorial article on the week’s themes. This is due the week after the guest lecture.

For part (3): your goal is to engage in interdisciplinary communication, with attention to the anticipated audience. You will write your paper on the theme of the week’s guest lecture but can interpret these ideas differently from the guest speaker; you are encouraged to draw on academic literature on the topic beyond the assigned readings. You may choose to write for an academic audience: such articles appear in many academic journals, including Science's policy forum. Alternately, you may choose to write for a policy, public, or interdisciplinary website, such as the Washington Post's Monkey Cage, the Center for Global Development's web series, the Wilson Center's New Security Beat. The intended outlet must be indicated.

Note: in case of a speaker cancellation or substitution (this has happened in the past, and flexibility is essential in this class!), students assigned to facilitate discussions will, for part 2, lead discussions on the assigned readings and their posted discussion questions. If a speaker cancels, we will still hold class, and spend the time in discussions on the week’s themes.

Group-based decision-making assignment 30%: In 8000 words or less, not including citations, each research team will provide description and analysis of an individual, organizational or system-generated environmental decision made in the recent past. A list of possible topics will be provided, but groups are free to choose their own (must be approved by
The topic can either be the decision itself or both the decision and its implementation. That is, the research question to be addressed is one of the following:

- why was the decision made?
- why was the decision made and then implemented in the way it was?

Analysis can include any factors deemed relevant, but please be sure to include the influence of different factors examined in the course (worldviews, values, information, interests, decision-making processes, adaptation). Please make use of, and cite, course readings.

**Policies and Expectations**

**In general:** In this course, you can expect that I will strive to be fair, respectful, prepared, responsive, and enthusiastic. In return, I anticipate you will be respectful of your classmates and of me, be prepared, and be on time for class. I hope that together we can foster a safe and engaging space, and I will rely on all of you to help create that space.

**Online course site:** We will maintain a course website (Quercus) for readings, course announcements, course materials, and discussions. Please check in frequently with this site. Please also be patient with this site, as it sometimes hits up against glitches. If communication on the site goes awry, please feel free to use email for assignments, questions, etc.

**Deadlines and late penalties:** I anticipate that all assignments will be submitted on time. However, some students may find themselves with valid conflicts and challenges, especially in light of your diverse programs and courses of study. Please contact me as early as possible if you anticipate being unable to meet deadlines. The same applies for missing classes: as this is a seminar class, attendance is the bedrock of the course, enabling us to build a strong community and develop enriching conversations across weeks; if you know in advance you need to miss class, it helps me to be aware of these absences.

**Backups and rough drafts:** You are strongly advised to keep rough drafts and backup copies of all assignments and essays you submit for this class. Please take a minute at the start of the term to set yourself a backup strategy. Whether it's a backup external hard drive, a web-based cloud service like Dropbox or Google Drive, or some other option, it's important that you have multiple copies of your work in the case of a hard drive failure or computer problem (this is important not only for this course, but also (especially!) for your research and thesis/dissertation projects).

**Names:** If the name on the official course registration list does not, for any reason, match the name by which you would like to be addressed (and under which you would like to submit assignments and sign emails) please let me know. I am not able to change official course lists, but I can certainly address you by your preferred name. Also, please let me know the pronouns you use (mine are she/her).

**Exceptions and Assistance:** The University has many resources to help students who need assistance for any number of reasons, both in and outside of the classroom, including library, academic, and health and counseling resources. The University also is committed to providing allowances for religious observances. If you are struggling or you encounter unanticipated challenges or crises during the term (whether for academic and/or personal reasons), please seek...
the support you need as early as possible. If you do not know the options, do not hesitate to ask. If you will need accommodation from me for any reason, in the classroom or on coursework and assignments, please let me know as soon as you can.

Some students find themselves facing challenges unexpectedly. If you find yourself in a difficult situation, even if you have not yet gone through all the official channels, it is best to let me know right away that you are seeking university assistance and may need accommodations (you do not need to disclose the details of your situation to me). A few helpful resources:

- [https://www.sgs.utoronto.ca/gradlife/Pages/Grad-Wellness.aspx](https://www.sgs.utoronto.ca/gradlife/Pages/Grad-Wellness.aspx)
- [https://www.sgs.utoronto.ca/currentstudents/Pages/Writing-Centre.aspx](https://www.sgs.utoronto.ca/currentstudents/Pages/Writing-Centre.aspx)
- [http://uoft.me/religiousaccommodation](http://uoft.me/religiousaccommodation)
- [http://familycare.utoronto.ca/resources/](http://familycare.utoronto.ca/resources/)

**Academic integrity**: The seriousness of academic integrity really cannot be stressed enough. Academic integrity is essential to the pursuit of learning and scholarship in a university, and to ensuring that a degree from the University of Toronto is a strong signal of each student’s individual academic achievement. As a result, the University treats cases of cheating and plagiarism very seriously, seeing these as serious academic offenses.

All suspected cases of academic dishonesty will be investigated following procedures outlined in the Code of Behaviour on Academic Matters, through the School of Graduate Studies. If you have questions or concerns about what constitutes appropriate academic behaviour or appropriate research and citation methods, you are expected to seek out additional information from your instructor or other institutional resources. As some norms differ across disciplines and universities, please take a moment to familiarize yourself with UofT policies.

- [https://www.sgs.utoronto.ca/facultyandstaff/Pages/Academic-Integrity.aspx](https://www.sgs.utoronto.ca/facultyandstaff/Pages/Academic-Integrity.aspx)
- [http://www.governingcouncil.utoronto.ca/policies/behaveac.htm](http://www.governingcouncil.utoronto.ca/policies/behaveac.htm)
- [www.artsci.utoronto.ca/osai/students](http://www.artsci.utoronto.ca/osai/students)

Potential offences include, but are not limited to:

- Using someone else’s ideas or words without appropriate acknowledgement
- Using someone else’s words without using quotation marks
- Submitting your own work in more than one course without instructor permission
- Making up sources or facts
- Obtaining or providing unauthorized assistance on any assignment.
- Looking at someone else’s answers during an exam or test
- Falsifying institutional documents or grades
- Falsifying or altering any documentation required by the University
Class topics and readings

Please note that the order of classes may change; advance notice will be given

Week 1: Jan 8: introduction
Week 2: Jan 15: Guest speaker: Dr. Shoshanna Saxe, Civil & Mineral Engineering, UofT
Week 3: Jan 22: systems thinking; 3-minute thesis paired/group practice
Week 4: Jan 29: Guest speaker: Dr. Hilary Cunningham, Anthropology, UofT
Week 5: Feb 5: 3-minute thesis presentations
Week 6: Feb 12: Guest speaker: Dr. Uahikea Maile, Political Science, UofT

Winter reading week: Feb 19 – no class

Week 7: Feb 26: environmental decision-making tools; group work
Week 8: March 4: Guest speaker: TBD
Week 9: March 11: environmental values; group work
Week 10: March 18: Guest speaker: Dr. Sarah Finkelstein, Earth Sciences, UofT
Week 11: March 25: uncertainty and adaptation; group work
Week 12: April 1: Guest speaker: TBD – group project due

Please note, additional readings will be added for weeks with guest speakers.

Week 1: Jan 8: introduction
In this first week of class week, we introduce the goals for this course on environmental decision-making. We discuss environmental studies, environmental movements, and decision-making, and consider how a range of perspectives might inform us of different ways of approaching challenging environmental issues. We also find out a bit about each other and the perspectives from which we are each coming to the course, as well as various motivations for enrolling in the collaborative program in environmental studies. Our readings discuss the broad topic of environmental decision-making and the nature of environmental challenges (raising questions of scientific uncertainty and measurement, time horizons and contingencies, and values and equity), and different approaches to understanding the environment and land.

Readings: environmental decision-making and approaches


Week 2: Jan 15: Dr. Shoshanna Saxe, Civil & Mineral Engineering, UofT

Readings TBD
Week 3: Jan 22: systems thinking and multiple levels of decision-making
This week, we turn to questions of the interconnectedness of many of our decisions, and how to address decision-making at multiple levels. We use ideas of systems thinking to help place our decisions into a broader context, considering how multiple worldviews might help us see environmental challenges in new ways.

In the third hour of this week’s class, students will work in pairs/small groups to practice the three-minute thesis talks that will be presented in week 5. You will be expected to come prepared to give your talk to a small group of your peers and to provide constructive feedback to others on their talks, with the aims of improving the organization and delivery of research material and developing confidence in public speaking.

Readings: systems thinking

Week 4: Jan 29: Dr. Hilary Cunningham, Anthropology, UofT

Readings: tbd

Week 5: Feb 5: three-minute thesis presentations
This week, students will each present a three-minute presentation of their research (or, for those in course-based programs or still in the course phase of a research program, a research topic of interest). The readings this week address questions of interdisciplinary studies and communication, with the aim of helping you think through communication across fields and the assumptions underpinning our own research.

Readings: interdisciplinary studies

Week 6: Feb 12: Dr. Uahikea Maile, Political Science, UofT

Readings tbd

*Winter Reading Week: Feb 19 – no class*
Week 7: Feb 26: environmental decision-making tools
This week, we consider various tools that can be used in environmental decision-making, from modelling to environmental impact assessments to community consultations. In this overview of tools, we return to questions about the goals of decision-making, as well as the more technical processes of evaluating alternative courses of action.

We will dedicate the third hour of class to work on group projects.

Readings: decision-making tools

Week 8: March 4: speaker tbd

Readings tbd

Week 9: March 11: environmental values
This week returns to the recurring theme of environmental values, considering multiple perspectives on the questions associated with value, as well as the persistent question of the misalignment of peoples’ actions with their claimed values. We ask some questions about decision-making that lie at the heart of the endeavour: who is making decisions? For whom? On what grounds?

We will dedicate the third hour of class to work on group projects.

Readings: environmental values and the values-action gap
**Week 10: March 18: Dr. Sarah Finkelstein, Earth Sciences, UofT**

Readings: tbd

**Week 11: March 25: uncertainty and adaptation**
Recognizing the conditions of uncertainty under which much decision-making takes place, we look this week at decision-making strategies in cases of uncertainty, the need for adaptive approaches, and the challenges of communicating uncertainty to public audiences. We also consider how political changes create uncertainty and opportunities for change.

We will dedicate the third hour of class to work on group projects.

Readings: decision-making under uncertainty and trust in science

**Week 12: April 1: speaker tbd**

*group project due*

Readings: tbd