

# ENV101H1 S

## Confronting the Climate Crisis

### Winter 2025 Syllabus

#### Course Meetings

##### ENV101H1 S

Section	Day & Time
LEC0101	Wednesday, 1:00 PM - 3:00 PM
TUT0101	Wednesday, 3:00 PM - 4:00 PM
TUT0102	Wednesday, 3:00 PM - 4:00 PM
TUT0201	Wednesday, 4:00 PM - 5:00 PM
TUT0202	Wednesday, 4:00 PM - 5:00 PM
TUT0301	Thursday, 1:00 PM - 2:00 PM
TUT0302	Thursday, 1:00 PM - 2:00 PM
TUT0401	Thursday, 2:00 PM - 3:00 PM

Refer to ACORN for the most up-to-date information about the location of the course meetings.

Lectures are in-person only, and will be held every week. Tutorials will be held every week, except there will be no tutorial in week 1 and week 12.

#### Course Contacts

**Course Website:** <https://q.utoronto.ca/courses/378141>

**Instructor:** Prof Steve Easterbrook

**Email:** [sme@cs.toronto.edu](mailto:sme@cs.toronto.edu)

**Office Hours and Location:** Thursdays 11am.

**Additional Notes:** Email is the best way to contact me. Please include the course code in the subject of your email, and allow 24-48 hours for a response during normal office hours.

**Head Teaching Assistant:** Emily MacCallum

**Email:** [em.maccallum@mail.utoronto.ca](mailto:em.maccallum@mail.utoronto.ca)

**Teaching Assistant:** Jaden Phillips

**Email:** [jlee.phillips@mail.utoronto.ca](mailto:jlee.phillips@mail.utoronto.ca)

**Teaching Assistant:** Sarah Liez

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## Course Overview

This course is a comprehensive, interdisciplinary introduction to the climate crisis, suitable for any undergraduate student at U of T. The course examines the climate crisis from scientific, social, economic, political, and cultural perspectives, from the physical science basis through to the choices we now face to stabilize the climate system. The course uses a mixture of lectures, hands-on activities, group projects, online discussion, and guest speakers to give students a deeper understanding of climate change as a complex, interconnected set of problems, while equipping them with a framework to evaluate the choices we face as a society, and to cultivate a culture of hope in the face of a challenging future.

This course will give you a thorough, inter-disciplinary understanding of the climate crisis: how we got here, what's at stake, and what we can do about it.

### Course Learning Outcomes

By the end of this course, students will be able to:

- Identify key drivers and impacts of climate change and assess scale and urgency of the crisis;
- Interpret scientific reports and graphical presentation of data used in climate research and policymaking;
- Identify systemic interconnections between scientific, political, economic, social, and ethical dimensions of climate change and climate solutions;
- Identify and critique diverse responses to the climate crisis from the orthodox to the radical, and link them to underlying economic, political, and cultural worldviews;
- Engage in productive dialogue, debate, and collaborative learning to critically re-assess their own positions, values, assumptions, thought patterns, and behaviours in relation to the climate crisis;
- Apply the principles of active hope to cultivate constructive responses and resilient behaviours, including self-care and community engagement;

**Prerequisites:** None

**Corequisites:** None

**Exclusions:** ENV194H1

**Recommended Preparation:** None

**Credit Value:** 0.5

## Marking Scheme

Assessment	Percent	Details	Due Date
<b>Participation in Tutorials</b>	10%	Full participation marks will be awarded if you submit an introductory video at the start of the course and participate in all the tutorials.	No Specific Date
<b>Personal Journal</b>	4%	Keep a journal of your thoughts and feelings about the climate crisis throughout the course. To encourage you to be frank and honest in describing your feelings, your journal will remain private. At the end of term, you will submit a short selection of thoughts from your journal for grading.	2025-04-02
<b>Weekly Quizzes</b>	8%	Short weekly online quizzes (weeks 2-11). Please attempt the quiz before the lecture - you can change your answers after I've gone over the material in the lecture. Quizzes will remain open till midnight after the lecture.	2025-01-08,2025-01-15,2025-01-22,2025-01-29,2025-02-05,2025-02-12,2025-02-26,2025-03-05,2025-03-12,2025-03-19,2025-03-26
<b>A1: Policy Brief</b>	15%	Write a two-page policy brief for a politician on a climate policy issue of your choice. Succinctly cover the key points an elected official might need to know before going into a vote in the legislature on the policy. Bring a draft of your briefing to your tutorial in week 6 for a peer review session. Final version due in class in week 7.	2025-02-26

Assessment	Percent	Details	Due Date
<b>A2: Climate Solution Presentation</b>	20%	Working in a team of 3-4 students, you will research a potential climate solution (e.g. a technology, a policy idea, a behavioural change, etc). Identify its pros and cons, and assess how much of a contribution it could make if adopted broadly. Present the results of your research in a six-minute talk in your tutorial in week 9 or 10.	2025-03-19
<b>Midterm test</b>	10%	A 50 minute midterm taken during the lecture in week 8. The style and format will be similar to the final exam, but it will be much shorter.	2025-03-05
<b>In-Person Final Exam</b>	33%		Final Exam Period

### Late Assessment Submissions Policy

Late penalty: Half marks if submitted after the deadline, but within one week. Zero after that. Individual extensions will be granted automatically without penalty if requested in advance of the deadline.

### Course Schedule

Week	Description
<b>Week 1</b> Jan 8	<p><b>How long have we known?</b></p> <ul style="list-style-type: none"> <li>• Course intro</li> <li>• Brief overview of the history of climate science</li> <li>• Sources of data about climate change</li> </ul> <p>Submit your intro video on padlet: <a href="https://padlet.com/sme54/env101-community-azqtp17lm5q5t0t5">https://padlet.com/sme54/env101-community-azqtp17lm5q5t0t5</a></p>
<b>Week 2</b> Jan 15	<p><b>What causes climate change?</b></p> <ul style="list-style-type: none"> <li>• Greenhouse gases – where they come from and what they do</li> <li>• How the greenhouse effect works</li> <li>• How scientists use models to assess climate sensitivity</li> </ul>

<b>Week 3</b> Jan 22	<b>How bad is it?</b> <ul style="list-style-type: none"> <li>• Future projections of climate change</li> <li>• Understanding targets: 350ppm, 1.5°C &amp; 2°C; Net Zero</li> <li>• Irreversibility, overshoot, long-term implications, and emergency measures (geoengineering)</li> </ul>
<b>Week 4</b> Jan 29	<b>Who does it affect?</b> <ul style="list-style-type: none"> <li>• Key impacts: extreme weather, sea level rise, ocean acidification, ecosystem collapse, etc</li> <li>• Regional disparities in climate impacts and adaptation, and the rise of climate migrants</li> <li>• Inequities in responsibility and impacts – the role of climate justice.</li> </ul>
<b>Week 5</b> Feb 5	<b>Do we have the technology to fix it?</b> <ul style="list-style-type: none"> <li>• Climate solutions and their pros and cons</li> <li>• Sectoral analysis: energy, buildings, transport, food systems, waste, etc</li> <li>• Interaction effects among climate solutions</li> </ul>
<b>Week 6</b> Feb 12	<b>Can we agree to fix it?</b> <ul style="list-style-type: none"> <li>• International policymaking: UNFCCC, IPCC, Kyoto, Paris, etc.</li> <li>• Policy tools: carbon taxes, carbon trading, subsidies, direct investment, etc.</li> <li>• Barriers to political action.</li> </ul> <p><i>Bring the draft of your policy brief to your tutorial for peer review</i></p>
Feb 19	<b>No class - reading week!</b>
<b>Week 7</b> Feb 26	<b>What will it cost to fix it?</b> <ul style="list-style-type: none"> <li>• Intro to climate economics</li> <li>• Costs and benefits of adaptation and mitigation</li> <li>• Ecomodernism vs. Degrowth</li> </ul> <p><i>Final version of your policy brief due.</i></p>
<b>Week 8</b> Mar 5	<b>What's stopping us?</b> <ul style="list-style-type: none"> <li>• Climate communication and climate disinformation</li> <li>• The role of political lobbying</li> <li>• How we talk about climate change and the role of framing</li> </ul>
<b>Week 9</b> Mar 12	<b>What are we afraid of?</b> <ul style="list-style-type: none"> <li>• The psychology of climate change</li> <li>• Affective responses to climate change: ecoanxiety, doomerism, denial, etc.</li> <li>• Maintaining mental health in the climate crisis</li> </ul> <p><i>First set of climate solutions presentations in tutorial</i></p>

<b>Week 10</b> Mar 19	<b>How can we make our voices heard?</b> <ul style="list-style-type: none"> <li>• Protest movements and climate activism</li> <li>• Theories of Change</li> <li>• Modes of activism and the ethics of disruptive protest</li> </ul> <i>Second set of climate solutions presentations in tutorial</i>
<b>Week 11</b> Mar 26	<b>What gives us hope?</b> <ul style="list-style-type: none"> <li>• Constructive hope as a response to eco-anxiety</li> <li>• The role of worldviews, culture, and language</li> <li>• Reconnecting with nature</li> </ul>
<b>Week 12</b> Apr 2	<b>Where do we go from here?</b> <ul style="list-style-type: none"> <li>• Importance of systems thinking and multisolving.</li> <li>• The role of storytelling in creating a narrative of hope</li> <li>• Making your studies count: the role of universities in a climate emergency.</li> </ul>

## Policies & Statements

### Online Communication

The best way to ask me questions is during class. If you need to contact me outside of class, you can reach me via email at [sme@cs.utoronto.ca](mailto:sme@cs.utoronto.ca). Please put the course code in the subject line of your email. You must use your [mail.utoronto.ca](mailto:mail.utoronto.ca) email address for all course-related communications - I will not respond to email about the course that is not from a U of T mailbox. Please also remember to check your U of T email box regularly.

*Rationale for this policy:* University of Toronto email accounts are more secure, and are also governed by the institution's codes of conduct. It also means that if you tell me something important via email, but for some reason I don't receive it, this can be verified by IT staff if needed.

### Assignment Submission Method

All coursework should be submitted via Quercus.

### Late/Missed Assignments

The deadline for submitted coursework is the end of the day (11:59pm) on the day the assignment is due. Work submitted after this will be graded as normal, but half marks will be deducted as a late penalty. Work must be submitted online to Quercus.

I recognize that many of you face struggles for multiple reasons (family care, wellness, mental health, financial stress, housing, etc), all of which is compounded by multiple global crises including war, poverty, and climate change. If you're struggling with coursework, you may ask for an extension and I will always grant it, **as long as you ask before the deadline**. However,

bear in mind that missed deadlines tend to compound, and catching up can be hard. I'm happy to negotiate a timeline that works for you to help you get through the course successfully.

## **Students with Disabilities or Accommodation Requirements**

I welcome students with diverse learning styles and needs in this course. I have a disability myself, as do several of my family members, so I promise I will be sympathetic to your needs and help you find appropriate accommodations. If you have an acute or ongoing disability issue or accommodation need, you should register with Accessibility Services (AS) at the beginning of the academic year by visiting <https://studentlife.utoronto.ca/departments/accessibility-services/>. Without registration, you will not be able to verify your situation with your instructors, and instructors will not be advised about your accommodation needs. AS will assess your situation, develop an accommodation plan with you, and support you in requesting accommodation for your course work. Remember that the process of accommodation is private: AS will not share details of your needs or condition with any instructor, and instructors will not reveal that you are registered with AS.

## **Specific Medical Circumstances**

If you become ill and it affects your ability to do your academic work, consult me right away. Normally, I will ask you for documentation in support of your specific medical circumstances. This documentation can be an Absence Declaration (via ACORN) or the University's Verification of Student Illness or Injury (VOI) form. The VOI indicates the impact and severity of the illness, while protecting your privacy about the details of the nature of the illness. If you cannot submit a VOI due to limits on terms of use, you can submit a different form (like a letter from a doctor), as long as it is an original document, and it contains the same information as the VOI (including dates, academic impact, practitioner's signature, phone and registration number). For more information on the VOI, please see <http://www.illnessverification.utoronto.ca>. For information on Absence Declaration Tool for A&S students, please see <https://www.artsci.utoronto.ca/absence>. If you get a concussion, break your hand, or suffer some other acute injury, you should register with Accessibility Services as soon as possible.

## **Accommodation for Personal Reasons**

There may be times when you are unable to complete course work on time due to non-medical reasons. If you have concerns, speak to me or to an advisor in your College Registrar's office; they can help you to decide if you want to request an extension or other forms of academic consideration. They may be able to email your instructors directly to provide a College Registrar's letter of support and connect you with other helpful resources on campus.

## **Mental Health and Well-Being**

Your mental health is important. Throughout university life, there are many experiences that can impact your mental health and well-being. As a University of Toronto student, you can access free mental health and wellbeing services at Health & Wellness (<https://studentlife.utoronto.ca/departments/health-wellness/>) such as same day counselling, brief counselling, medical care, skill-building workshops, and drop-in peer support. You can also meet with a Wellness Navigation Advisor who can connect you with other campus and

community services and support. Call the mental health clinic at 416-978-8030 ext. 5 to book an appointment or visit <https://uoft.me/mentalhealthcare> to learn about the services available to you.

You can also visit your College Registrar to learn about the resources and supports available: <https://www.artsci.utoronto.ca/current/academic-advising-and-support/college-registrars-offices>

If you're in distress, you can access immediate support: <https://uoft.me/feelingdistressed>

## **Religious Accommodations**

As a student at the University of Toronto, you are part of a diverse community that welcomes and includes students and faculty from a wide range of cultural and religious traditions. For my part, I will make every reasonable effort to avoid scheduling tests, examinations, or other compulsory activities on religious holy days not captured by statutory holidays. Further to University Policy, if you anticipate being absent from class or missing a major course activity (such as a test or in-class assignment) due to a religious observance, please let me know as early in the course as possible, and with sufficient notice (at least two to three weeks), so that we can work together to make alternate arrangements.

## **Equity, Diversity and Inclusion**

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. U of T does not condone discrimination or harassment against any persons or communities.

## **Participation + Conduct in Class**

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 flexible. We are all learning new skills, practices, and norms in a time of crisis, and doing so amidst a series of personal, community, and global challenges. I hope that together we can foster a safe and engaging space both in the classroom and online, and I will rely on all of you to help create that environment.

Be mindful of others during class discussions, and ensure everyone has a chance to speak. Some of the material in this course can evoke strong emotional reactions, and class members may have strongly held beliefs and opinions. We will need to listen to each other respectfully, but we must also be open to having our views challenged in a fair and constructive way. If at any point you feel that any speech or behaviour in the course is unacceptable, please alert me as early as possible, so that I can address it in a timely way.

## **Cell Phones and Laptop Usage**

Technology can support student learning, but it can also become a distraction. Research indicates that multi-tasking during class time can have a negative impact on learning. Out of respect for your fellow students in this class, please refrain from using laptops or mobile phones



for purposes unrelated to the class. Do not display any material on a laptop which may be distracting or offensive to your fellow students.

## **Academic Integrity**

All suspected cases of academic dishonesty will be investigated following procedures outlined in the [Code of Behaviour on Academic Matters \(https://governingcouncil.utoronto.ca/secretariat/policies/code-behaviour-academic-matters-july-1-2019\)](https://governingcouncil.utoronto.ca/secretariat/policies/code-behaviour-academic-matters-july-1-2019). If you have questions or concerns about what constitutes appropriate academic behaviour or appropriate research and citation methods, please reach out to me. Note that you are expected to seek out additional information on academic integrity from me or from other institutional resources. For example, to learn more about how to cite and use source material appropriately and for other writing support, see the U of T writing support website at <http://www.writing.utoronto.ca>. Consult the Code of Behaviour on Academic Matters for a complete outline of the University's policy and expectations. For more information, please see [A&S Student Academic Integrity \(https://www.artsci.utoronto.ca/current/academic-advising-and-support/student-academic-integrity\)](https://www.artsci.utoronto.ca/current/academic-advising-and-support/student-academic-integrity) and the [University of Toronto Website on Academic Integrity \(https://www.academicintegrity.utoronto.ca\)](https://www.academicintegrity.utoronto.ca).

## **Use of generative AI**

The assignments on this course have been carefully designed to give you meaningful experiences that build your knowledge and skills, and I hope you will engage with them in that spirit. If you decide to use any AI tools, you *must* include a note explaining what tools you used and how you used them, and include a reflection on how they have affected your learning process. Without such a note, use of AI tools will be treated as an academic offence, with the same penalties as if you had asked someone else (rather than a bot) to do the work for you.

*Rationale for this policy:* In the last couple of years, so-called Artificial Intelligence (AI) tools have become commonplace, particularly tools that use generative AI to create text and images. The underlying technology uses complex statistical models of typical sequences of words (and elements of images), which can instantly create very plausible responses to a variety of prompts. However, these tools have no understanding of the meanings that we humans attach to words and images, and no experience of the world in which those meanings reside. The result is that they are expert at mimicking how humans express themselves, but they are often factually wrong, and their outputs reflect the biases (racial, gender, socio-economic, geographic) that are inherent in the data on which the models were trained. If you choose to use AI tools to help you create your assignments for this course, you will still be responsible for any inaccuracies and biases in the generated content.

More importantly, these AI tools raise important questions about the nature of learning in higher education. Unfortunately, we have built a higher education system that places far too much emphasis on deadlines and grades, rather than on learning and reflection. In short, we have built a system that encourages you to cheat. The AI industry promotes its products as helpful tools, perhaps no different from using a calculator in math, or a word processor when writing. And there are senses in which this is true - for example if you suffer from writer's block, an AI tool can quickly generate an outline or a first draft to get you started. But the crucial factor in deciding when and how to use such tools is a question of what, exactly, you are offloading onto

the machine. If a tool helps you overcome some of the tedious, low-level steps so that you can move on faster to the important learning experiences, that's great! If on the other hand, the tool does all the work for you, so you never have to think or reflect on the course material, you will gain very little from this course other than (perhaps) a good grade. In that sense, most of the ways you might use an AI tool in your coursework are no different from other forms of 'cheating': they provide a shortcut to a good grade, by skipping the learning process you would experience if you did the work yourself.

### **Quercus Info**

This Course uses the University's learning management system, Quercus, to post information about the course. This includes posting readings and other materials required to complete class activities and course assignments, as well as sharing important announcements and updates. New information and resources will be posted regularly as we move through the term. To access the course website, go to the U of T Quercus log-in page at <https://q.utoronto.ca>.  
SPECIAL NOTE ABOUT GRADES POSTED ONLINE: Please also note that any grades posted are for your information only, so you can view and track your progress through the course. No grades are considered official, including any posted in Quercus at any point in the term, until they have been formally approved and posted on ACORN at the end of the course. Please contact me as soon as possible if you think there is an error in any grade posted on Quercus.