

Carleton University
Summer 2023
Department of Geography and Environmental Studies

ENST 2001: Sustainable Futures: Environmental Challenges and Solutions

Tuesdays and Thursdays, 11:35-2:25pm
Format: In-person synchronous classes
Instructor: Veronika Kratz (she/her)
Email: veronikakratz@cunet.carleton.ca
Office Hours: after class, or by appointment

I. Course description:

This course will explore environmental challenges and solutions through a focus on speculation, or the imagining of possible futures, as a practice which is central to both understanding and addressing the climate emergency. We will consider the role of speculation within the realms of climate science, art, scholarship, storytelling and social movements in order to consider what it means to imagine and build sustainable futures. We will explore various potential solutions to environmental crises including geoengineering, permaculture, rights for nature, and land back. We will consider: what kinds of futures do these solutions propose? Who are these futures for, and who might they leave behind? To aid our examination, we will also explore methods of future-making, including indigenous futurity and migrant futures, as traditions that can guide our thinking.

Coming into this semester, we are all experts on living with and through environmental crisis. This course will allow us, collectively, to apply these experiences and knowledges as we seek to develop our capacity for speculation in order to imagine (and, thereby, work toward) decolonial, just, and radically green futures.

II. Learning Outcomes:

This course seeks to introduce and familiarize students to speculation as a method of envisioning futures that is central to environmental work. As a part of this project, we will practice utilizing the classroom as an experimental space in which we can both sit with the difficult realities of living through environmental crisis and imagine alternatives. Students in this class will also gain familiarity with some of the central debates surrounding potential solutions to the climate crisis, considering such factors as time, cost, risk, feasibility, and effectiveness from political, scientific and cultural viewpoints.

This course also offers an opportunity to develop student's critical thinking and writing practices. This will look different for everyone, but the course assignments are designed to encourage writing as a practice through which we can better articulate and engage with our own ideas, as well as how our ideas sit in relation to others. Writing in this class is encouraged to be experimental, creative, and full of risks. Low-stakes assignments such as the reading journal are designed to allow for (and even celebrate!) rough work, while other assignments offer space for more polished reflection and research (which may not always take the form of written work).

III. Prerequisites:

Second-year standing in the Environmental Studies program or permission of the Department.

IV. Texts:

All course materials will be available on Brightspace/ARES.

V. Course Calendar:

Week 1 (July 4-7): Imagining Sustainable Futures

July 4: Introduction: Future as Practice/Speculation as Praxis

- Readings:
 - Course Syllabus and assignment outlines
 - "Sultana's Dream," Rokeya Sakhawat Hossain (1905) (short story)

July 6: The Science of Speculation: Climate Forecasting

- Readings:
 - IPCC AR6 Synthesis Report
 - Optional:
 - *Because IPCC* (graphic novel)

Work Due: Reading Journal 1; Introduction & Self-Assessment (July 7)

Week 2 (July 10-14): What kind of future? (Re)defining Sustainability

July 11: NO CLASS

July 13: (Re)defining Sustainability

- Readings:
 - Kathleen R. Smythe, "A historian's Critique of Sustainability." *Culture Unbound*, 913-929 (2014)

Work Due: Reading Journal 2; Assignment 1 (July 14)

Week 3 (July 17-21): Imagining I: Land and Water: Challenges and Solutions

July 18: Soils and Nutrients: Permaculture and Alternative Agricultures

- Readings:

- Albert Bates and Toby Hemenway “From Agriculture to Permaculture” in *2010 State of the World – Transforming Cultures: From Consumerism to Sustainability*, pp. 47-53 (2010)
- Nina Lakhani, “The farmers restoring Hawaii’s ancient food forests that once fed an island,” *The Guardian* (17 June 2022)

July 20: Oceans, Carbon Capture, and Geoengineering

- Readings:
 - *Plan Sea: Ocean Interventions to Address Climate Change*, episode 6: “The pathways for ocean-based carbon removal approaches” (podcast)
 - “What about Geoengineering?” Niclas Hallstrom, Jennie C. Stephens and Isak Stoddard; and “Drawdown Technologies,” Rob Jackson, 233-239, *The Climate Book* (2023)

Work Due: Reading Journal 3 (July 21)

Week 4 (July 24-28): Whose Future? Imagining with Environmental Justice

July 25: Indigenous Futurism

- Readings:
 - Kyle Powys Whyte, “Our Ancestors’ Dystopia Now: Indigenous Conservation and the Anthropocene” in *The Routledge Companion to the Environmental Humanities*, eds. Ursula Heise, Jon Christensen, and Michelle Niemann, pp. 206-215 (2017)
 - Amanda Strong (Director), “Bidaaban: The Dawn Comes” (short film)

July 27: Rajni Perera exhibit, “Futures” at the CUAG

- This week’s class will be held at the Carleton University Art Gallery

Work Due: Reading Journal 4 (July 28)

Week 5 (July 31-Aug. 4): Imagining II: Policy, Land, and Reparations

Aug. 1: Indigenous Protected and Conserved Areas (IPCAs)

- Readings:
 - J.S. Sze, L.R. Carrasco, D. Childs, et al. “Reduced deforestation and degradation in Indigenous Lands pan-tropically.” *Nature Sustainability*, 5 (2). pp. 123-130 (2022)
 - Indigenous Leadership Initiative (website)

Aug. 3: Rights of Nature

- Readings:
 - *The Rights of Nature: A Global Movement* (2020) (documentary)
 - K Chiucarello, “Grocery List for a Sand Dune,” *X-R-A-Y Literary Magazine* (2020) (short story)

Work Due: Reading Journal 5; Assignment 2 (Aug. 4)

Week 6 (Aug. 7-11): Activism and the Building of Sustainable Futures

Aug. 8: Climate Action

- Readings:
 - *How to Blow Up a Pipeline* (2022) (film)
 - Optional:
 - “Who Decides the Right Way to Protest?” episode of The New York Times podcast *The Argument*, May 25, 2022
 - Zeynep Tufekci, “Do Protests Even Work?” *The Atlantic*, June 24 2020

Aug. 10: Local Activism Showcase

- Readings:
 - Decolonial Solidarity Organizing Call (webinar)
 - Extinction Rebellion, *This is Not a Drill: An XR Handbook*, “Declaration of Rebellion” (1-2)

Work Due: Reading Journal 6 (Aug. 11)

Week 7 (Aug. 15): Possible Futures Workshop

Aug. 15: Last Class

- This class will serve as an opportunity to showcase and workshop final projects.

Work Due: Final Assignment (Aug. 16)

VI. Evaluation:

All assignments for this course will be submitted via cuPortfolio. We’ll discuss how to use this platform in detail during class.

- Introduction/Self-Evaluation + Final Self-Evaluation (5%)
- Reading Journals (15%)
- Assignment 1: Identifying Challenges (15%)
- Assignment 2: Critical Reflection (20%)
- Final Assignment: Possible Futures (30%)
- Participation (15%)

Brief Assignment Descriptions (detailed descriptions will be available on Brightspace):

Introduction/Self-Evaluation (2.5%): At the start of term, you will hand in an introduction letting me know a little about yourself and what brought you to the course. You will also hand in a self-evaluation that lays out your personal learning goals for the class (including the grade you wish to receive). We will work together throughout the term to achieve the goals you set out

here.

DUE: Friday, July 7

Reading Journal (15%): Students will submit a brief reflection every week. The journal is designed to be a low-stakes opportunity for you to explore your thinking on the readings, lectures, and class discussions. You're encouraged to make use of different media and materials including photos, film, music, and writing. I will post prompts for your journal entries each week, but these are optional—feel free to approach them in your own way. Your journals will be evaluated on their consistency, evidence of independent thought, and detailed engagement with course ideas/materials.

*DUE: Every week on Friday. * Students are asked to complete at least two journal entries by July 21, and two more by Aug. 16.*

*Journal entries are due each week on Friday. You must submit your journals on the week we are discussing the material. In other words, you cannot submit a journal for Week 2 on Week 4. You must complete at least four journal entries over the course of the semester, but you are encouraged to submit all six. I will base my evaluation on your best four entries. The journals will be evaluated at two points during the semester, in Week 3 and Week 6.

Assignment 1: Identifying Challenges (15%): For this assignment, students will identify an environmental challenge that is of interest to them and research possible solutions. These assignments will be 2-3 pages long and will be evaluated based on evidence of independent thought, proper use of secondary sources and research materials, and clarity.

DUE: Friday, July 14

Assignment 2: Critical Reflection (20%): This assignment is an opportunity to expand on or revisit one of your previous journal entries from the course in a more polished format. These reflections will be 3-4 pages long and will be evaluated based on evidence of independent thought, detailed engagement with course ideas/materials and, unlike the journals, on the clarity and polish of your writing.

DUE: Friday, Aug. 4

Final Assignment: Possible Futures (30%): The final assignment for this course asks students to take what they have learned and imagine a possible future which addresses a specific environmental challenge. The format of the final project is up to you, although I will post a number of ideas/prompts on Brightspace. Your final project may take the form of an essay, or it may look like something completely different based on your own background, skills, interests, and motivation in the course.

DUE: Friday, Aug. 16

Final Self-Evaluation (2.5%): Lastly, you will hand in a brief self-evaluation that reflects on your experiences and progress over the course of the semester to suggest a grade for yourself. I will

use this grade in determining my own final assessment of your course work.

DUE: Friday, Aug. 16

Participation (15%): Participation will be evaluated based on your regular attendance and thoughtful contributions to our class discussions. I encourage you to bring up ideas from your journals in discussion, especially if you have difficulty speaking in class. If you're worried about in-class participation please send me an email—I recognize that participation often looks different for everyone and I am happy to discuss.

Late Policy: If you need to hand in an assignment late, please send me an email or talk to me about it after class so that we can agree on a new deadline. I am happy to give you the time that you need to complete the work, just keep in mind that this will delay your feedback.

My evaluation of your written work in this class will be based on:

- evidence of independent thought (ie, not just summarizing or restating the material we cover in class but instead *using* it to explore your own ideas, interests, and interpretations)
- engagement with course ideas/materials (including readings, lecture materials, as well as ideas from your reading journals and class discussions)
- the clarity and polish of your work (with the exception of your reading journals, your work is expected to be well-edited and organized)
- consideration of feedback (I will be looking to see that you are taking my feedback into account as you progress through the semester)

If at any point in the semester you are unsure of your current standing in the course, please email me.

VII. Statement on Plagiarism

PLAGIARISM

The University Academic Integrity Policy defines plagiarism as “*presenting, whether intentionally or not, the ideas, expression of ideas or work of others as one’s own.*” This includes reproducing or paraphrasing portions of someone else’s published or unpublished material, regardless of the source, and presenting these as one’s own without proper citation or reference to the original source. Examples of sources from which the ideas, expressions of ideas or works of others may be drawn from include but are not limited to: books, articles, papers, literary compositions and phrases, performance compositions, chemical compounds, artworks, laboratory reports, research results, calculations and the results of calculations, diagrams, constructions, computer reports, computer code/software, material on the internet and/or conversations.

Examples of plagiarism include, but are not limited to:

- any submission prepared in whole or in part, by someone else;
- using ideas or direct, verbatim quotations, paraphrased material, algorithms, formulae, scientific or mathematical concepts, or ideas without appropriate acknowledgment in any academic assignment;
- using another's data or research findings without appropriate acknowledgement;
- submitting a computer program developed in whole or in part by someone else, with or without modifications, as one's own; and
- failing to acknowledge sources through the use of proper citations when using another's work and/or failing to use quotations marks.

Plagiarism is a serious offence that cannot be resolved directly by the course's instructor. The Associate Dean of the Faculty conducts a rigorous investigation, including an interview with the student, when an instructor suspects a piece of work has been plagiarized. Penalties are not trivial. They can include a final grade of "F" for the course.

VIII. Statement on Student Mental Health

As a University student you may experience a range of mental health challenges that significantly impact your academic success and overall well-being. If you need help, please speak to someone. There are numerous resources available both on- and off-campus to support you. Here is a list that may be helpful:

Emergency Resources (on and off campus):

<https://carleton.ca/health/emergencies-and-crisis/emergency-numbers/>

Carleton Resources:

- Mental Health and Wellbeing: <https://carleton.ca/wellness/>
- Health & Counselling Services: <https://carleton.ca/health/>
- Paul Menton Centre: <https://carleton.ca/pmc/>
- Academic Advising Centre (AAC): <https://carleton.ca/academicadvising/>
- Centre for Student Academic Support (CSAS): <https://carleton.ca/csas/>
- Equity & Inclusivity Communities: <https://carleton.ca/equity/>

Off Campus Resources:

- Distress Centre of Ottawa and Region: (613) 238-3311 or TEXT: 343-306-5550, <https://www.dcottawa.on.ca/>

- Mental Health Crisis Service: (613) 722-6914, 1-866-996-0991, <http://www.crisisline.ca/>
- Empower Me: 1-844-741-6389, <https://students.carleton.ca/services/empower-me-counselling-services/>
- Good2Talk: 1-866-925-5454, <https://good2talk.ca/>
- The Walk-In Counselling Clinic: <https://walkincounselling.com>

IX. Statement on Pandemic Measures

It is important to remember that COVID is still present in Ottawa. The situation can change at any time and the risks of new variants and outbreaks are very real. There are a number of actions you can take to lower your risk and the risk you pose to those around you including being vaccinated, wearing a mask, staying home when you're sick, washing your hands and maintaining proper respiratory and cough etiquette.

Feeling sick? Remaining vigilant and not attending work or school when sick or with symptoms is critically important. If you feel ill or exhibit COVID-19 symptoms do not come to class or campus. If you feel ill or exhibit symptoms while on campus or in class, please leave campus immediately. In all situations, you should follow Carleton's symptom reporting protocols.

Masks: Masks are no longer mandatory in university buildings and facilities. However, we continue to recommend masking when indoors, particularly if physical distancing cannot be maintained. We are aware that personal preferences regarding optional mask use will vary greatly, and we ask that we all show consideration and care for each other during this transition.

Vaccines: While proof of vaccination is no longer required to access campus or participate in in-person Carleton activities, it may become necessary for the University to bring back proof of vaccination requirements on short notice if the situation and public health advice changes. Students are strongly encouraged to get a full course of vaccination, including booster doses as soon as they are eligible and submit their booster dose information in cuScreen as soon as possible. Please note that Carleton cannot guarantee that it will be able to offer virtual or hybrid learning options for those who are unable to attend the campus.

All members of the Carleton community are required to follow requirements and guidelines regarding health and safety which may change from time to time. For the most recent information about Carleton's COVID-19 response and health and safety requirements please see the University's COVID-19 website and review the Frequently Asked Questions (FAQs). Should you have additional questions after reviewing, please contact covidinfo@carleton.ca.

X. Requests for Academic Accommodations

ACADEMIC ACCOMMODATION

You may need special arrangements to meet your academic obligations during the term. For an accommodation request the processes are as follows:

Pregnancy obligation: write to me with any requests for academic accommodation during the first two weeks of class, or as soon as possible after the need for accommodation is known to exist. For accommodation regarding a formally-scheduled final exam, you must complete the Pregnancy Accommodation Form ([click here](#)).

Religious obligation: write to me with any requests for academic accommodation during the first two weeks of class, or as soon as possible after the need for accommodation is known to exist. For more details [click here](#).

Academic Accommodations for Students with Disabilities: The Paul Menton Centre for Students with Disabilities (PMC) provides services to students with Learning Disabilities (LD), psychiatric/mental health disabilities, Attention Deficit Hyperactivity Disorder (ADHD), Autism Spectrum Disorders (ASD), chronic medical conditions, and impairments in mobility, hearing, and vision. If you have a disability requiring academic accommodations in this course, please contact PMC at 613-520-6608 or pmc@carleton.ca for a formal evaluation. If you are already registered with the PMC, contact your PMC coordinator to send me your Letter of Accommodation at the beginning of the term, and no later than two weeks before the first in-class scheduled test or exam requiring accommodation (if applicable). After requesting accommodation from PMC, meet with me to ensure accommodation arrangements are made. Please consult the PMC website for the deadline to request accommodations for the formally-scheduled exam (if applicable).

Survivors of Sexual Violence

As a community, Carleton University is committed to maintaining a positive learning, working and living environment where sexual violence will not be tolerated, and where survivors are supported through academic accommodations as per Carleton's Sexual Violence Policy. For more information about the services available at the university and to obtain information about sexual violence and/or support, visit: <https://carleton.ca/equity/sexual-assault-support-services>

Accommodation for Student Activities

Carleton University recognizes the substantial benefits, both to the individual student and for the university, that result from a student participating in activities beyond the classroom experience. Reasonable accommodation will be provided to students who compete or perform at the national

or international level. Write to me with any requests for academic accommodation during the first two weeks of class, or as soon as possible after the need for accommodation is known to exist. <https://carleton.ca/senate/wp-content/uploads/Accommodation-for-Student-Activities-1.pdf>