ENVS 144/Politics 179:
Global Climate Change Politics
Online Course

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Required Sections: Either Friday 9:20-10:25am OR 12-1:105pm
Section Location: ISB 431

Weekly Assignments due each Friday by 9am

Syllabus QUIZ #1 DUE by 9am on Friday September 23rd

Course Description: Although the science surrounding climate change is increasingly clear, the ethical, social and political discussions surrounding how to address it remain as contested as ever. While the industrialized world has been historically responsible for causing the problem over the last 150 years, scientific evidence suggests that we cannot avoid the dangerous effects of climate change without reducing greenhouse gas (GHG) emissions from both developed and some rapidly growing developing countries (e.g. India and China). This fundamental inequity is what underlies most political debates on climate change in international relations. Undergirding all of these debates are questions of equity and justice.

This course unpacks the equity and justice dimensions of the climate crisis. Although we will focus on global politics, we will also spend several weeks delving into conceptual tools that can be applied in analyzing climate politics from the local to the global level, such as environmental justice, intersectionality, and race. We will start the course by laying a foundation in the core scientific evidence of anthropogenic climate change, its primary impacts, and by explaining why climate change is fundamentally an issue of justice. We will then navigate contested political terrain that produced to what many have referred to as the "historic" 2015 Paris Agreement on climate change, adopted by the 21st Conference of the Parties (COP21) to the United Nations Framework Convention on Climate Change (UNFCCC). We will deconstruct many of the tough questions of climate justice that governments continue to debate on the global stage, including: should developing countries be required to reduce their GHG emissions; if so, what mechanisms are available for doing so, who should pay for it, and should all developing countries be treated equally; and if not, what are the alternative problem solving tools and what would those entail from the developed world? We will then explore the ethics of emerging technologies in addressing climate change, the links between COVID-19 and climate politics, and follow the UN climate negotiations (COP27) which will take place in Egypt in November this year.

No prior experience with climate politics is required, however students with an interest in international relations, environmental justice, international law, global environmental policy, and/or sustainable development will benefit most from this course. While we will briefly review the major biological/ecological impacts of climate change, we will not go into much detail on climate change science. If you want more detail on climate change science please see the optional videos I have linked to on the syllabus under Week 1.

Effort: This is a 5 unit course. You will spend about 15 hours each week, roughly equally divided between: watching lectures/videos, reading course texts, completing quizzes, and/or working on projects individually or with your classmates.

Online Structure: The course is divided between asynchronous activities that you will complete on your own schedule and **required in-person synchronous discussion sessions** that will take place on Fridays. Each week 2-3 hours of lectures and/or other video content will be available online via Canvas. Students will be expected to watch these materials at a time that is convenient for them, but keep in mind that assignments related to those materials are **due weekly at 9am Friday.**

Sections and Group Work: Although the majority of the course will be conducted asynchronously, each week we also have a **required 1 hour in person synchronous section.** During these sections, we will discuss the readings, work on group projects, and engage in active learning activities. Be sure to prepare for your section by reading the "Section plan" noted on the syllabus each week. Giving some thought to the listed discussion questions ahead of time will help you to engage more thoughtfully and actively in your section (see participation grade below).

Sections will be held IN PERSON in ISB 431 on Fridays at either 9:20-10:25am or 12-1:05pm. You must attend the same section – the one for which you are registered- for the duration of the course.

COVID & Masking: For a variety of reasons, some people in our community remain particularly vulnerable to COVID. Out of care for them, I will be wearing a mask in class. I urge you all to consider doing the same.

Using Canvas: We will use Canvas to run all aspects of this course. Each week you should check the weekly "Module" on Canvas, which will provide links to all of the lectures and other videos that you should complete before your section time each week. This is also where you will find links to complete and/or turn in all assessment activities, such as position papers, and quizzes. Please look at this closely each week to ensure you don't miss anything and mark the assignment as complete once you are done.

Sometimes we will be watching live recordings of webinars or lectures. For these live recordings there are sometimes technical difficulties and glitches in the recording. Please just ignore these glitches and focus on the content. The Q&A at the end of these recordings is always optional. Please do watch the core content and the Q&A only if your interest is piqued.

If you will be accessing Canvas on your phone, please be sure to download the Canvas mobile app.

Using Zoom: We will not use Zoom for this course, aside from for office hours. You can access office hours on Zoom via Canvas.

Office Hours: Office hours are listed above. They will be on Zoom a drop in basis.

Learning Outcomes: The ENVS major and combined majors have a set of Program Learning Outcomes (PLOs) that we hope each class will contribute to achieving. Here are those PLOs. This course will specifically strengthen your ability to achieve PLO #1 and #4.

Students graduating with a B.A. in Environmental Studies should be able to:

1. Identify the societal (social, political, economic, cultural and ethical) agents and structures that contribute to environmental change. (social science competency)
2. Describe the structure and functioning of major physical and ecological components of the earth's systems. (natural science competency)
3. Access and analyze a complex literature addressing specific topics in environmental studies, and evaluate the usefulness and limitations of individual sources of information. (analytic thinking)
4. Demonstrate effective oral and written communication skills. (communication skills)

In addition to programmatic learning outcomes, there are course-specific learning outcomes. If you do the readings carefully, come to class prepared to discuss them, and take your assignments seriously, by the end of the quarter you will be able to:

1. Describe the architecture of global-level climate policy within the UNFCCC;
2. Explain the justice implications of climate change and the host of proposed solutions to it;
3. Explain the political dynamics and diverse interests that make climate change such a difficult problem to solve politically;
4. Explain the climate policies and interests in one country, and explain how those policies and interests compare to what is going on in other countries; and
5. Explain the political trade-offs involved in using emerging technologies to address climate change.

Academic Integrity: Students are expected to adhere to the UCSC policy on academic integrity: http://www.ucsc.edu/academics/academic_integrity/. Unless otherwise stated in writing, all assignments should be written individually and be original works for this class. All academic integrity violations (e.g. plagiarism, cheating, multiple submissions, facilitating dishonesty) will be reported if encountered.

Accessibility and Disabilities: UC Santa Cruz is committed to creating an academic environment that supports its diverse student body. If you are a student with a disability who requires accommodations to achieve equal access in this course, please submit your Accommodation Authorization Letter from the Disability Resource Center (DRC) to me by email, preferably within the first two weeks of the quarter. I would also like us to discuss ways we can ensure your full participation in the course. I encourage all students who may benefit from learning more about DRC services to contact DRC by phone at 831-459-2089 or by email at drc@ucsc.edu

Other Support Services: Other support services on campus that you should be aware of include:

Campus Resources, Advocacy and Education: https://care.ucsc.edu/who-we-are/about-care.html

Title IX Office: https://titleix.ucsc.edu/resources/syllabi-disclosure-statement.html

Late Policy: You are strongly urged to hand in work on time as indicated on the syllabus. Unless otherwise indicated, late assignments will incur a 10% grade drop per day. Assignments more than 4 days late will not receive any credit. If you have extenuating circumstances, please see me in office hours to discuss ASAP.

Academic Integrity: All students are expected to abide by the University's academic integrity policy: https://www.ue.ucsc.edu/academic_misconduct

Assignments and Grading:

Grading will be based on the following:

Quizzes – 20%
Climate in the News – 20%
UNFCCC Simulation– 20%
Climate Engineering Ethics Bowl– 20%
Final Exam (take home) – 20%

99-100 – A+	87-89 – B+	77-79 – C+	67-69 – D+	<60 - F
94-98 – A	84-86 – B	74-78 – C	64-68 - D	
90 -93 – A-	80-83 – B-	70-73 – C-	60-63 – D-	

*For assigning final grades I will round up final grades at or above 0.5 and round down at or below 0.49. In fairness to all students, I will not make any exceptions to this rule. Also for equity reasons, I also do not offer one-off extra credit to individual students. Thank you for your understanding.

Quizzes (20%)
Each week students should complete all quizzes associated with the week's material. Typically there is one quiz per lecture. All quizzes are available on Canvas. There will not be make-ups for quizzes missed for any reason. However your lowest 2 quiz grades will be dropped.

UNFCCC Simulation (20%)
During Week 6 we will engage in a United Nations Framework Convention on Climate Change (UNFCCC) simulation. During this simulation, students will work in small groups to research their assigned country's position related to *climate-related displacement and the treatment of climate change refugees*. Students will be assigned to countries at random. Countries will be chosen based on which countries are likely to be important players in the topic under discussion. Most group work can be completed in section but you will likely need to divide some tasks among group members for completion outside of section as well.

See full instructions for this assignment on Canvas under Home tab and under Files → Assignments

Climate Engineering Ethics Bowl (20%)
Building on course reading materials, lectures, and additional research, students will discuss the merits and drawbacks of climate engineering. As in a traditional debate, an ethics bowl requires you to research, explain, and defend a position. Unlike a traditional debate, which pits teams against one another, in an ethics bowl teams need not disagree but are evaluated on the clarity and quality of their arguments. The ethics bowl format allows students to discuss and analyze a complex moral and ethical issue and to work collaboratively to develop and defend a position on that issue. Central to the ethics bowl format is a requirement that all participants treat one another with courtesy and respect.

Detailed instructions for the Ethics Bowl can be found on Canvas under Home tab and under Files → Assignments

Climate in the News (20%)

Climate change issues are in the news daily. Further, climate change issues impact so many aspects of our lives that we cannot possibly cover everything in one quarter. This assignment is designed to add a student-led dimension to what we learn about climate change. Please use the discussion board on Canvas called "Climate in the News" for the appropriate week to post and discuss recent news articles that discuss any climate change issue of your choice.

For full credit you must post at least 4 news articles and 4 replies/comments on the articles posted by your classmates. The required weeks for posting are noted on the syllabus. You are welcome and encouraged to post as often as you like, but only one per week will count towards your grade.

You must post an article and post a comment during the following weeks:
Week 1 (or Week 2 if you joined the class late); Week 8; Week 10; and Week 11

Your posts (4 points each) should:

1. Clear state where the article is published and when

2. Summarize the main point of the article

3. Explain why it's interesting and related to the class

4. Include the full text of the article pasted in, attached or in a link.

Your replies (1 point each) should note something you like or do not like about the article or something you learned that was new. They can be short. 1-3 sentences is sufficient.

See Canvas discussion board for more details and for an example that I posted of an article I thought was really interesting.

Final Exam (take home) (20%)

The final exam for this course will be a series of short answer questions that relate to the various topics covered throughout the quarter. The questions will ask students to draw from the readings, lecture, and relevant personal experiences. There will be several additional required readings associated with the prompt. We will discuss the drafts during the final section on Friday Dec 2nd, and the final draft will be due to Canvas on **Monday, December 5th at 11:59pm.**

Required Readings: All required readings for class are freely available on Canvas under Home tab and under Files → Readings

Weekly Topics:

Week 1 (September 22- 23): Introduction

Lecture/Videos:
NA

Readings:
1. Syllabus
2. Review "Week 0 Orientation Materials" on Canvas
3. Review APA Formatting Guidelines under Week 1 materials on Canvas

*Assignments due to Canvas by **9am on Friday September 23rd:***
1. Syllabus Quiz
2. Student Pledge on Canvas
3. Climate in the News (see Canvas under Discussion)

Section Plan: This week in section we will introduce ourselves and ask you each to introduce yourselves, including any experience with climate change issues and what you hope to get out of this class. We will also take any questions about the syllabus, assignments and structure of the course and explain how we will be running sections for the duration of the quarter. We will also ask you to share the article you posted for the Climate in the New assignment.

Week 2 (September 26-30): Climate Change Basics: Institutions, Indicators and Impacts

Lecture/Videos:

2.1 Climate Change Indicators and Impacts (20 min) (Prof. Jinnah)
2.2 Climate Impacts - Global Weirding (9min)(Prof. Katharine Hayhoe)
2.3 A Climate Change Solution that's Right under our Feet (11min)(Prof. Asmeret Asefaw Berhe, UC Merced)
2.4 Climate Change in Africa (30min)(CTGN Africa)
2.5 The Intergovernmental Panel on Climate Change (7min, Prof. Jinnah)
2.6 How Climate Change Impacts the US: Exploring the National Climate Assessment and IPCC Reports (~26min) (Dr. Katharine Hayhoe, Texas Tech University, and Dr. Brenda Ekwurzel, Union of Concerned Scientist) (Watch minutes 22-29 AND 48-68min, the rest is optional)

OPTIONAL:
Just for Fun (no quiz, content warning: some swearing):

- Burn Notice, The Daily Show (11min)(John Stewart)

More options if you want more climate science background:

- Professor David Archer at University of Chicago makes all of his climate science lectures available online. You can find them here: http://forecast.uchicago.edu/lectures.html
- Climate Science continued (Interview with Dr. Rebecca Barnes)

Readings:

1. Gillis. 2017. Climate Change Is Complex. We've Got Answers to Your Questions. (A New York Times Interactive). https://www.nytimes.com/interactive/2017/climate/what-is-climate-change.html
2. Explore NASA's website on climate change evidence http://climate.nasa.gov/evidence/
3. IPCC. 2018. Global Warming of 1.5 °C: Summary for Policymakers. Intergovernmental Panel on Climate Change. Geneva, Switzerland.
4. Masters, J. 2020. One of Earth's three warmest July months on record Yale Climate Connections.
5. US Global Change Research Program. 2018. 4th National Climate Assessment. Overview: https://nca2014.globalchange.gov/highlights/overview/overview
6. Ahmed, Amal. 2018. "For Some Poor Countries, Climate Science Comes to Late" The Atlantic. October 15, 2018.

Assignments due to Canvas by 9am Friday:

1. Quizzes #1-6
2. Climate in the News (only if you didn't post last week)

Section Plan: Please come prepared ready to answer and discuss the following questions:

- How do we know climate change is anthropogenically driven? Explain two pieces of scientific evidence to support this fact.
- Why does Amal Ahmed argue that climate science comes too late for poor countries?

Week 3 (October 3-7): Climate Justice: Local to Global

Lectures/Videos:

3.1 What is Climate Justice? (42min, Interview with Prof. Prakash Kashwan, University of Conn.)
3.2 Climate Change is a Social Justice Issue (14min) (Adriana Laurent, TEDx)
3.3 Greta Thunberg's Statement at COP18 (4min) (Greta Thurnberg, UNFCCC)

3.4 Kiribati: a drowning paradise in the South Pacific (43 min) (DW Documentaries)

OPTIONAL:

- Climate Justice in Black and Brown Communities (80min) (Climate Justice Alliance)

Readings:

1. Kashwan, Prakash. 2020. *Climate Justice: An Introduction*. A Pedagogical Note. University of Connecticut
2. Haque. 2019. (How) Climate Change is a Hangover of Colonialism, Exploitation, and Slavery. Eudaimonia and Co. Accessed 23 August 2019.
3. Kojola, Erik and David Pellow. 2021. New directions in environmental justice studies: examining the state and violence, *Environmental Politics*, 30:1-2, 100-118.
4. Su, Y. (2020) UN Ruling on Climate Refugees Could be Gamechanger for Climate Action. *The Conversation.* 28 January 2020.
5. Read the Instructions on Canvas for the UNFCCC simulation before coming to your section this week.

OPTIONAL:

- Schlosberg, David, and Lisette B. Collins. 2014. "From Environmental to Climate Justice: Climate Change and the Discourse of Environmental Justice." *Wiley Interdisciplinary Reviews: Climate Change* 5(3): 359–74

Assignments due to Canvas by 9am Friday:

1. Quizzes #1-4
2. Sign up for UNFCCC simulation country on Canvas

Section Plan:

- Discussion of the following questions (15min):
  - Why is climate change a justice issue?
  - What are the international dimensions of climate justice?
- UNFCCC simulation groups assigned and discussion of assignment in section. Begin coordination for group work in advance of next week's section and begin working on Issue Background Papers. (50min)

Week 4 (October 10-14) International Climate Politics: UNFCCC, Kyoto Protocol, and Paris Agreement

Have you started posting your Climate in the News posts and comments? If not, you'll need to post one every week starting this week to complete the assignment. One post per week max. 6 posts required for full credit.

Lecture/Videos:

4.1 A History of International Climate Change Law: UNFCCC and Kyoto Protocol (22min, Prof. Jinnah)
4.2 The Paris Agreement (17min, Prof. Jinnah)
4.3 An Insider's Look at the Paris Agreement (54min) (Sue Biniaz, U of Chicago)
4.4 Adaptation Fund: Pioneering Effective Action on the Ground (12min)(Adaptation Fund)

Readings:

1. Spend about 10min exploring the UNFCCC website with a focus on the upcoming COP27, available at: www.unfccc.int
2. Spend about 10min exploring Climate Action Tracker at https://climateactiontracker.org/ (Look at country profiles to see what individual countries are doing)
3. Dagnet, Y. et al. 2019. COP25: What we needed, what we got, what's next. World Resources Institute. Blogpost 23 December 2019.
4. IISD. 2021. Analysis of the Glasgow Climate Conference.
5. Mulvaney, K. 2019. Climate Change Report Card: These countries are reaching targets. *National Geographic Environment.*

These last two required readings will be important for thinking about the UNFCCC Simulation:

6. Mace, M.J. and Verheyden, R. 2016. Loss, Damage and Responsibility after COP21: All Options Open for the Paris Agreement. *Review of European Community & International Environmental Law.* 25(2): 197- 214
7. Matthew Lai, Stacy-Ann Robinson, Emmanuel Salas, William Thao & Anna Shorb (2022): Climate justice for small island developing states: identifying appropriate international financing mechanisms for loss and damage, Climate Policy, DOI: 10.1080/14693062.2022.2112017

Assignments due to Canvas by 9am Friday:

1. Quizzes #1-4
2. Climate in the News

Section Plan:

- Discussion of the following questions:
  - What are two key differences between the Paris Agreement and the Kyoto Protocol?
  - Working in your Simulation group, use the Climate Action Tracker (CAT) website to research your country's actions to address climate change. Summarize what they pledged to do to implement the Paris Agreement. How

does CAT rank their efforts? What factors might explain your country's performance? (e.g. oil producing nation, large solar industry, strong civil society presence, etc.). Be prepared to present your research to the class (3min per group)

- If time permits, evaluate the proposal from Lai et al (2022). Is this a fair way to account for SIDS losses due to climate change? What would you do differently?

Week 5 (October 17-21): Equity and Responsibility in the UNFCCC

Lectures/ Videos:

6.1 Climate Justice in the UNFCCC: Common but Differentiated Responsibilities (10min) (Prof. Jinnah)
6.2 The Climate Game and the World's Poor (IIED, 40 min)
6.3 Climate Refugees (83 min)(YouTube documentary, available on Canvas)
6.4 The common but different responsibilities of states to accept climate refugees (17min) (Robyn Eckersley)

Readings:

1. Civil Society Review. 2019. US and EU owe more than half the cost of repairing future damage caused by climate disasters. Press Release. 25 November 2019.
2. Calliaria, Serdecznyb, and Vanhala. 2020. Making sense of the politics in the climate change loss & damage debate. Global Environmental Change. 64: 102133
3. UNFCCC Summary of the Warsaw Mechanism on Loss and Damage. Available here: https://unfccc.int/topics/adaptation-and-resilience/workstreams/loss-and-damage-ld/warsaw-international-mechanism-for-loss-and-damage-associated-with-climate-change-impacts-wim
4. Climate Analytics Briefings on Loss and Damage: https://climateanalytics.org/briefings/loss-and-damage/
5. UNFCCC Task Force on Displacement: https://unfccc.int/wim-excom/sub-groups/TFD
6. The UN Refugee Agency role in climate-related displacement: https://unfccc.int/wim-excom/sub-groups/TFD

OPTIONAL but RECOMMENDED:

- Okereke, Chukwumerije and Philip Coventry. 2016. "Climate justice and the international regime: before, during, and after Paris" *WIREs Climate Change*. 7:834–851.
- Agarwal, Anil and Sunita Narain. 2015. "Environmental Colonialism: The Perverse Politics of Climate Change." Except reproduced in *Global Environmental Politics: From Person to Planet.* Simon Nicholson and Paul Wapner (eds.) Boulder, London: Paradigm Publishers. Pages 233-237.

Assignments due to Canvas by 9am on Friday:

1. Quizzes #1-4
2. Issue Background paper (one per student)

Section Plan:

- Discussion of the following questions (15min):
    - Should countries with different levels of development be treated differently under the UNFCCC? Why or why not and if yes, how?
    - Do rich countries have responsibility to accommodate climate refugees?
- Work on country research to develop Position and Recommendations in groups (50min)

Week 6 (October 24-28): UNFCCC Simulation

Lectures:

- No lectures this week. Please use your time to develop your position and recommendations for the simulation. There is a 1-page paper summarizing your country's position as well as a formal presentation of your position and recommendations in class on Friday. See assignment instructions on Canvas (under Files) for more detailed instructions.

Readings:

1. Whatever you identify to support your research on the Position and Recommendations paper

Assignments due to Canvas by 9am Friday:

1. Position & Recommendations paper
2. Slides for position/recommendation presentations

Section Plan:

- Groups will present their positions and recommendations to the class (8min per group, 5 slides max)

Week 7 (October 31-November 4): UNFCCC Simulation Continued

Lectures:

- No lectures this week. Please use your time to develop your Forward Strategy Presentation. There is no paper associated with this assignment but you will formally present these to the class on Friday and upload your slides to Canvas in advance (8min per group, 5 slides max).

Required Readings:

1. All groups' Position & Recommendation slides posted on Canvas. You will need to read these to complete the Forward Strategy Presentation.
2. Ethics Bowl Instructions

Assignments due to Canvas by 9am Friday:

1. Slides for Forward Strategy presentations

Section Plan (Prof. Jinnah/Astrid):

- Groups will present their Forward Strategy to the class (8min per group, 5 slides max)
- Discussion of Ethics Bowl Assignment (early due to holiday next Friday)

Week 8 (November 7-11) Can Technology Save Us?: Introduction to Climate Engineering

Note: UNFCCC COP 27 will be taking place in Sharm el-Sheikh, Egypt November 6-18

Lectures/Videos:

8.1 Introduction to Geoengineering (25 min) (Prof. Jinnah)
8.2 Could Solar Geoenginering Counter Global Warming (5 min) (The Economist)
8.3 Emerging Science of Solar Geoengineering (Shuchi Talati, Union of Concerned Scientists)
8.4 A new Tool to Address Climate Change (7min)(Harvard Forum on US Solar Geoengineering Research)
8.5 Assessment Carbon Dioxide Removal (25 min)(Katharine Mach, University of Miami and Janos Pasztor, C2G)(ONLY Dr. Mach and Mr. Pazstor's talks are required, the first 25 minutes of the webinar, the rest is OPTIONAL)
8.6 Watch an Ethics Bowl: Final Round 2018 NHSEB Nationals (45min)

Readings:

1. National Academies of Sciences, Engineering, and Medicine. (2021). Reflecting sunlight: Recommendations for solar geoengineering research and research governance. Pp1-19
2. Nelson, Arthur. 24 March 2017. "US Scientists Launch World's Biggest Geoengineering Study" *The Guardian*
3. Jinnah, Sikina, Simon Nicholson, David Morrow, Zachary Dove, Paul Wapner, Walter Valdivia, Leslie Paul Thiele, Catriona McKinnon, Andrew Light, Myanna Lahsen, Prakash Kashwan, Aarti Gupta, Alexander Gillespie, Richard Falk, Ken Conca, Dan Chong, Netra Chhetri. (2019) "Governing Climate Engineering: A Proposal for Immediate Governance of Solar Radiation Management." *Sustainability*. 11(14): 3954
4. Explore the Institute for Carbon Removal's website and choose 4 of the 6 "Fact Sheets" (on difference carbon removal technologies) to read. (Link on Canvas)
5. What is an Ethics Bowl? (Link on Canvas)

6. Ethics Bowl Instructions

Assignments due by 9am Friday:

1. Quizzes #1-4
2. Self and Group Assessment from UNFCCC Simulation
3. Climate in the News
4. Post some thoughts in response to the questions below on the Canvas discussion board called "Ethics Bowl Climate Engineering Casual Discussion"

Section Plan:

- Veteran's Day holiday – No section this week
- Please give the following questions some thought over the break and post some ideas on the Climate Engineering Discussion Board on Canvas:
    - *What are the potential benefits and risks of using climate engineering as a solution to climate change?*
    - *Who should have a voice in making those decisions?*
    - *What types of governance mechanisms should be developed for solar geoengineering research?*

Week 9 (November 14-18) – Climate Engineering and Justice: Ethics Bowl

Lectures/Videos:

10.1 Climate Engineering in the Wake of Paris (1 hour 43min, Q&A optional)
10.2 Climate Justice for Who? (48min, Prof. Jinnah)

OPTIONAL:
The Case for and Against Climate Engineering (1 hour 40min) (Prof. David Keith, Harvard University and Prof. Mike Hulme, Cambridge)

Readings:

1. McKinnon, Catriona. 2018. "Time is Running out on Climate Change but Geoengineering has Dangers of its Own" *The Conversation*.
2. Bellamy, Rob and Matthew Watson. "Should we be engineering the Climate: A social scientist and a natural scientist discuss" The Conversation.
3. Biermann, F., & Möller, I. (2019). Rich man's solution? Climate engineering discourses and the marginalization of the Global South. International Environmental Agreements: Politics, Law and Economics, 19(2), 151-167.
4. Táíwò, O. O., & Talati, S. (2022). Who Are the Engineers? Solar Geoengineering Research and Justice. Global Environmental Politics, 22(1), 12-18.
5. Ethics Bowl Instructions

Assignments due by 9am Friday:

1. Quizzes #1-2
2. 2-page briefing note

Section Plan:

- Ethics Bowl!

Week 10 (November 21- 25): Indigenous Voices in Climate Politics

Lectures/Videos:

7.1 Climate Change, Indigenous Activism and the Fight for Justice (24min) (Xiuhtezcatl Martinez and Vandana Shiva, AlJazeera)
7.2 Human Trauma and Climate Trauma As One (16min) (Sheila Watt-Cloutier, TEDx)
7.3 Indigenous Energy Justice and the Climate Crisis (59min) (Dr. Kyle Powers Whyte, University of Michigan)

Readings:

1. Claeys, Priscilla and Deborah Delgado Pugley. 2017. "Peasant and indigenous transnational social movements engaging with climate justice." *Canadian Journal of Development Studies* 38(3): 325-340.
2. Whyte, Kyle Powers. 2015. The Ethics of Traditional Knowledge Exchange in Climate Initiatives" *Earthzine*. 15 June 2015.

Assignments Due by 9am Friday:

1. Quizzes 1-3
2. Ethics Bowl Self and Group Assessment
3. Climate in the News

OPTIONAL:

- Indigenous knowledge meets science to solve climate change (13min)(Hindou Oumarou Ibrahim, TEDx)

Section Plan:

- Thanksgiving / Indigenous Peoples' Day Thursday, November 24th - No section this week

Week 11 (November 28 - December 2) Hot Topics: COP 27 & COVID-19

11.1 COVID-19 Climate Justice and Communities of Color (58min)(GRIST webinar)
11.2 Climate Change and Our Health Robert Bullard with Al Gore (11min)
11.3 Harnessing Humor (11min, Pablo Saurez)

11.4 Identify 1-2 videos or articles that have come out in the past couple of weeks that discuss COP27

Readings:

1. Final Exam Instructions and Challenge Readings required for your final exam - See detailed instructions on Canvas
2. Whatever you decide to read for the Climate and the News post for this week (see below)

Assignments:

1. Quizzes #1-3
2. Self and Group Assessment of Ethics Bowl (see assignment instructions for details)
3. On the Discussion Board for Week 11 Please post something interesting you learned from one or more of the articles you selected to read for 11.4 above
4. Climate in the News (must be related to COP27 and come to class prepared to discuss)

Section plan:

- What happened at COP27? (15min)
- Best cartoon annotations (15min)
- Course evaluations (last 15 min)
- Discussion of Final Exam questions in small groups (15 min)

Take home final exam due to Canvas **Monday, December 5th at 11:59pm.**