



Climate Governance: How Individuals, Communities, NGOs, Firms, and Governments can Solve the Climate Crisis

ENVIR 201/SMEA 201
(SSc/NSc, DIV)

SCHEDULE

Lecture: MW, 3:30 - 4:50 MLR 301

Discussion sections:

Time	THURSDAYS			FRIDAYS		
	Section	Room	TA	Section	Room	TA
10:30 -11:20	AA	MEB 234	JW	AD	MGH 284	MP
11:30 – 12:20	AB	MGH 238	JW	AE	MEB 245	MP
12:30 – 1:20	AC	MGH 228	JW	AF	MGH 242	MP

TEACHING TEAM

Instructor:

Nives Dolšak, Ph.D.

Stan and Alta Barer Professor and Director, School of Marine and Environmental Affairs, UW

nives@uw.edu

Office Hours: Tuesdays, 11:00-12:00, MAR 111

Teaching Assistants

Sections AA, AB, AC Jack Winterhalter (MMA Candidate, SMEA) jackwint@uw.edu Office Hours: Wednesdays, 11:00 am - 12:00 pm, MAR 115	Sections AD, AE, AF Maxwell Perkins (MMA Candidate, SMEA) maxper@uw.edu Office Hours: Thursdays, 12:00 - 1: 00 pm, MAR 115
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COURSE DESCRIPTION

Climate change is a global problem. Solving it requires that individuals like you and me, communities, firms, NGOs, and governments change what we currently do. Most people and organizations are reluctant to change, especially when such changes impose costs. How can we then avert the climate crisis?

To solve a problem, we must understand it, know what human activities cause it, and how to change these activities. What is it about climate change that makes it so difficult to solve? Is it that we do not have sufficient information about its causes and impacts? Is it that we do not know what to do about it? Shall we reduce emissions of greenhouse gasses, adapt to climate change, develop our economies in a sustainable way to increase our capacity to cope with climate change, incentivize innovations in energy generation and use, or move to a place that is less impacted by climate change? Will any of these actions be more difficult for some people and communities than for others? If so, who should pay so that this transition is just? And maybe the most difficult question: when we figure out what needs to be done, how do we make it happen?

In this course, we will draw on many sources to answer the above questions. We will read analyses written by atmospheric scientists, biologists, ecologists, economists, energy experts, geographers, political scientists, public health experts, sociologists, and others. We will read statements made by environmental organizations, climate advocates, firms, labor unions, and governments. We will read newspapers and social media. We will examine data. Drawing on these different sources, we will build a broad understanding of how different actors view climate change problems, how they want to solve them, and what it would take to implement these solutions.

LEARNING OBJECTIVES

- (1) Advance the knowledge of climate change causes, impacts, and solutions.
- (2) Advance the knowledge of differences across communities and actors in how they experience climate crisis, their capacity to address it, and solutions they prefer.
- (3) Increase the understanding of how various solutions, adopted by individuals, communities, NGOs, firms, or governments work.
- (4) Apply these concepts to develop (analyze) a solution that a specific actor could implement (had implemented).

EVALUATION AND GRADING

Students' work will be evaluated based on the following assignments:

Assignment	Maximum Points
Quizzes (7 required; each completed quiz is 1 point)	7
Problem sets (7 required; each completed problem set is 2 points max)	14
Discussion posts (10 required; each completed discussion post is 1 point)	10
Voting Record	16
Final team project report (30) and Weekly team meeting summaries (3)	33
TOTAL	80

Quizzes

Students will complete short quizzes before their discussion section. We use these quizzes to ensure that students understand core concepts from the readings and lectures of climate change, its causes and impacts (observed and projected), approaches to solving climate change, and ways of putting those in action. Quizzes will be credit/no-credit. To receive full credit, students must complete at least 7 quizzes throughout the quarter.

DUE: Quizzes will be available on Canvas at the beginning of each week. Students are expected to complete the quiz before their discussion section.

Problem sets

During discussion sections, students will complete problem sets (some individually, others in small groups). Students will post a brief write-up of these activities on Canvas. Problem sets will receive a maximum of 2 points each. Students are expected to complete 7 problem sets throughout the quarter.

DUE: 24 hours after students' respective discussion section.

Discussion posts

During class lectures, students will have multiple opportunities to relate the readings and the lecture to their personal experience. To earn points for discussion posts, students will be asked to write a short answer (3-4 sentences) to a specific question provided during the lecture. This assignment will be credit/no-credit. Students are expected to turn in 10 discussion posts throughout the quarter.

DUE: During the lecture session.

Voting Record

Each student will select one elected official from the Washington [House of Representatives](#) and analyze their voting on climate bills in 2024 (legislative session 2023-24). We are not including Senators in this analysis to make the assignment more manageable. If you are unsure about who represents you, you can search for your district representative [here](#). If you are not voting in WA state, use the address of the School of Marine and Environmental Affairs to identify a representative for this assignment: 3707 Brooklyn Ave NE, Seattle, 98105.

Following the [methodology of the League of Conservation Voters](#) (LCV), analyze representative's voting record in the 2023-24 legislative session. Similar to the LCV approach, you will have to determine which votes in your state legislature need to be included in your analysis. While the LCV methodology included all environmental votes, your analysis is about voting on climate issues. Therefore, you will want to examine votes pertaining to any issues that could impact climate mitigation or adaptation. These could include: climate change, energy, land use (as it impacts climate mitigation and/or adaptation), transportation, agriculture (as it pertains to climate mitigation and/or adaptation), and any other relevant issues. While the legislature voted on more than 50 bills that can potentially impact climate mitigation and/or adaptation, we require that you examine only the bills that your discussion section will identify for this assignment. You will provide a 1-2 sentence explanation of how each bill included in your assignment pertains to climate adaptation and mitigation. You will need to define the "pro climate" vote for each bill (not that for some bills, a vote "nay" is required to further climate mitigation or adaptation. In order to find your rep's vote (yea or nay) on a bill, you will need to review the Roll Calls on each bill's website. For example, see the WA Legislature website for bill 1216 [here](#). If you scroll to the end of the House action report, you will find for March 4, information on the 2nd substitute bill substituted, and you will be able to access voting information at "View Roll Calls". Your representative may also have a record of their votes on their own website.

Post your analysis (750-1000 words TOTAL, excluding references) as a word file as an Assignment in Canvas.

DUE: Sunday April 28, by 11:59 pm.

Final Team Project

By April 29 (Week 6), students will be randomly assigned to a topic and a team of 3-4 students to work on the final project. Each group member will examine one of the actors assigned to your group. If you determine that an actor on your list had not adopted any climate action plan, the group should identify a similar actor with a climate action plan. This project is designed to allow you to apply the concepts we learned in the class to examine possible climate solutions specified actors (individuals/households, communities, non-governmental organizations, firms, cities, counties, or a state government) could adopt and implement. In this analysis, you will draw on the readings assigned for this class and on information you can find about the assigned actors on the Internet. You may consider sources such as organizational websites, climate reports prepared by the actors, newspaper articles, social media campaigns, and others. While it is not important which citation style manual your group uses, make sure all members cite their sources uniformly.

Most of the analysis in the private sector, government agencies and offices, and in academia occurs in teams. In this class, we expect students to complete the final project in teams to learn how to design and manage team projects. We require regular weekly reporting of team activities on Canvas to facilitate transparency and accountability of team members to one another. You will use a Canvas discussion board created for your group to post these weekly reports and to exchange documents with other team members.

Your team's *final report* shall include the following sections:

1. *Executive summary* (written by the team, expected length is 150-200 words). This section will provide a concise summary of all key findings of the group's report.
2. Research methodology (written by the team, expected length is 150-200 words). This section will explain the procedure followed to identify sources for the analyzed actors and define the concepts that were included in each actor's report.
3. *Reports on individual actors in this team*
 - Report for Actor 1 (written by student 1, expected length is 550-650 words)
 - Report for Actor 2 (written by student 2, expected length is 550-650 words)
 - Report for Actor 3 (written by student 3, expected length is 550-650 words)
 - Report for Actor 4 (written by student 4, expected length is 550-650 words)

Each actor's report will include the following information:

- Brief description of the actor's mission (or authority), resources available (economic resources, political and cultural influence, etc.), and their potential to impact climate change (mitigation and/or sequestration).
- Analysis of the science used (if any) in the actor's climate action plan/pledge/policy/behavioral change. How do they use the science to (a) inform their plan and to (b) communicate why it will be effective? Is there any information that is omitted, but should have been included? Explain why. If nothing was omitted, why do you feel the information is complete?
- List the activities intended to reduce greenhouse gas emissions, enhancing carbon sinks, or increasing climate resilience included in the actor's climate action. Who is the targeted population, i.e., who is supposed to adopt these activities? How will the analyzed actor incentivize or mandate that the target population engages in these activities?
- How will these actions and their impact on climate mitigation/adaptation be measured? How will this information be made available? Who will have access to this information?

4. *Conclusion* (written by the team, expected length is 200-250 words). This section will identify key similarities and differences among the approaches of the actors the group examined. What explains the similarities? What explains the differences?

5. References (make sure you cite in text and list used sources in "works cited" page). While it is not important which citation style your group uses, make sure your members cite their sources uniformly.

The grade of the project will consist of two parts: the larger part will be based on each student's work in their section (20 points) and the smaller part will be based on the coherence of the entire report (10 points). Submit your group project as an Assignment in Canvas.

DUE: Monday, June 3, by 3:30 pm on Canvas.

Weekly Summaries of Team Meetings

Immediately after the end of your weekly team meeting, one member of the team will post a brief (no more than 100 words) summary of what each individual team member accomplished that week and the work to be completed by each team member next week. These summaries will increase the transparency of the completed work and individual

member’s contributions and provide the TA with an opportunity to address any questions that may occur in the group project.

DUE: at the end of each group meeting time on your group’s Canvas discussion board.

ON-LINE DOCUMENT ACCESS AND ASSIGNMENT SUBMISSION

We will use the UW [Canvas site for this course](#) (ENVIR 201/SMEA 201 Spring 2024) to post course documents and assignments as well as access and grade students’ assignments.

WEEKLY SCHEDULE

Class	Topic	Class	Topic
3/25	Introduction and course logistics	3/27	Climate change and its causes
4/01	Climate impacts and vulnerability: Global	4/03	Climate impacts and vulnerability: National and Washington State
4/08	How individuals and societies make decisions	4/10	How firms make decisions
4/15	Approaches to solving climate crisis: regulation	4/17	Approaches to solving climate crisis: innovation
4/22	Approaches to solving climate crisis: market instruments	4/24	Approaches to solving climate crisis: behavioral changes
4/29	Mitigation pathways: transportation, electricity	5/01	Mitigation pathways: industry, commercial & residential, agriculture
5/06	Sustainable development and just transition	5/08	Adaptation pathways: land use, natural resource management, infrastructure
5/13	Adaptation pathways: climate migration	5/15	Making it happen: elections
5/20	Making it happen: consumption and investment	5/22	Making it happen: social movements
5/27	Class does not meet; federal holiday	5/29	Flexible; topic to be determined in response to students’ interest

REQUIRED READINGS

Students will read a variety of sources, such as reports, journal articles, book chapters, and statements by organizations. The readings (or the link to the readings that are in public domain) are available on Canvas. My lectures will focus on the most important aspects of the readings. Students are expected to complete the readings assigned for each week PRIOR to the discussion section of that week.

Note: Please be aware that in some documents in the .pdf format, the page numbers in the original publication do not match the numbers Adobe PDF reader assigns to the document. All my instructions in the syllabus refer to the pages in the original publication.

Week 1, March 27: Climate change and its causes

[IPCC, 2021: Summary for Policymakers](#). In: Climate Change 2021: The Physical Science Basis. Contribution of Working Group I to the Sixth Assessment Report of the Intergovernmental Panel on Climate Change [MassonDelmotte, V., P. Zhai, A. Pirani, S.L. Connors, C. Péan, S. Berger, N. Caud, Y. Chen, L. Goldfarb, M.I. Gomis, M. Huang, K. Leitzell, E. Lonnoy, J.B.R. Matthews, T.K. Maycock, T. Waterfield, O. Yelekçi, R. Yu, and B. Zhou (eds.)]. Cambridge University Press. In Press. (Pages 4-35)

IPCC, 2022. [Emission Trends and Drivers](#). In Climate Change 2022: Mitigation of Climate Change. Contribution of Working Group III to the Sixth Assessment Report of the Intergovernmental Panel on Climate Change. Cambridge University Press, Cambridge, United Kingdom and New York, NY, USA. Read pages 217-219 carefully and skim pages 220-275 for key lessons.

Week 2, April 1&3: Climate impacts and vulnerability

MONDAY

IPCC, 2022. [Climate Change 2022: Impacts, Adaptation, and Vulnerability](#).

- Read Summary for Policy Makers (Sections SPM.A. and SPM.B; pages 4-20)
- Read Executive Summaries in Chapters 2-7.

WEDNESDAY

IPCC, 2022. Climate Change 2022: Impacts, Adaptation and Vulnerability. [Chapter 14: North America](#).

Read from the Executive Summary through section 14.6 (pages 1931-1988).

Jay, A.K., et al. 2023: Ch. 1. Overview: Understanding risks, impacts, and responses. In: [Fifth National Climate Assessment](#). Crimmins, A.R., et al., Eds. U.S. Global Change Research Program, Washington, DC, USA. Read pages 16-36.

Readings for weeks 3-10 will be posted in weekly modules on the Canvas course site.

COURSE AND UNIVERSITY POLICIES

RECORDING AND FILE USE AGREEMENT

By enrolling in this course, students agree to not download or share any course recordings or readings and acknowledge that the recordings are solely for their personal educational use during the quarter they are enrolled in the course.

CLASS PARTICIPATION AND ENGAGEMENT

This is an in-person class. We have designed the lectures and especially discussion sections for students to maximize their learning through discussion and hands-on problem sets. We strongly encourage all students to attend lectures and discussion sections.

USE OF DEVICES DURING THE LECTURE AND DISCUSSION SECTIONS

Research suggests that the use of electronic devices in class can be distracting for you and for your colleagues. Therefore, to enhance your learning experience, I ask students not to use phones, tablets, laptops, or any Internet connectable devices during my lectures. However, any student with a documented learning disability should feel free to use their computer and, if needed, a voice recording device, during my lectures.

Additionally, the discussion posts submitted during lectures will require that you use a phone or laptop. Please only use your device to type your discussion post during the specified time in the lecture. If you are using your phone for this, consider installing the Canvas app so that the pages display properly.

Your work in discussion sections, on the other hand, will require that you use a laptop. If you do not have one, please note that you can borrow a laptop from the UW libraries. You can find more information [here](#).

COVID-19 POLICY

For most updated UW Covid policies, please see [here](#).

We (the instructor and the TAs of this class) have built the course assignments to be flexible and allow students absences due to illness or other coronavirus-related disruptions, including the need to quarantine or because of closures

to caregiving services that may affect students who are caregivers. We will make lecture slides available after each lecture. The instructor and the TAs are available to students during their regularly posted office hours if any students have follow-up questions. We have designed quizzes and problem sets for every week while students are expected to submit only 7. This builds in substantial flexibility.

DIVERSITY, EQUITY, AND INCLUSION

The University of Washington supports an inclusive learning environment where diverse perspectives are recognized, respected, and seen as a source of strength. In this course, we will strive to create welcoming spaces where everyone feels included and engaged regardless of their social and cultural backgrounds.

DISABILITY ACCOMMODATIONS

University of Washington is committed to assisting disabled students. If you believe that you have a disability and would like academic accommodations, please contact Disability Resources for Students (DRS) at: [206-543-8924](tel:206-543-8924) V / [206-543-8925](tel:206-543-8925) TDD / uwdrs@uw.edu e-mail / <http://www.uw.edu/students/drs>.

RELIGIOUS ACCOMMODATIONS

“Washington state law requires that UW develop a policy for accommodation of student absences or significant hardship due to reasons of faith or conscience, or for organized religious activities. The UW’s policy, including more information about how to request an accommodation, is available at [Religious Accommodations Policy](#). Accommodations must be requested within the first two weeks of this course using the [Religious Accommodations Request form](#).”

LATE SUBMISSION POLICY

Quizzes and discussion posts are purposefully scheduled to increase learning in this class. Therefore, they cannot be completed late or rescheduled. However, students will have the opportunity to complete these assignments more times than required for grade, providing some flexibility in completion of these assignments. If a student has a problem completing the Voting record assignment on time, they should contact the TA prior to the due date to devise an alternative schedule for completion. If a team identifies problems that would preclude them from completing their work by the due date, they need to e-mail the TA (all team members have to be cc-ed on the e-mail) by May 29 to devise an alternative schedule for completion.

ACADEMIC INTEGRITY

The University of Washington Student Conduct Code ([WAC 478-121](#)) defines prohibited academic and behavioral conduct and describes how the University holds students accountable. I expect that you will know and follow university policies regarding all forms of academic and other misconduct.

Acts of academic misconduct include:

- Cheating:
 - unauthorized assistance in person and/or online for assignments, quizzes, tests or exams
 - using another student’s work without permission and instructor authorization
 - allowing anyone to take a course, assignment or exam for you without instructor authorization
- Falsification: intentional use of falsified data, information or records
- Plagiarism: representing the work of others as your own without giving appropriate credit to the original author(s) – this includes the use of AI-assisted software, such as ChatGPT
- Unauthorized collaboration: working with other students in the course on assignments, quizzes or exams without permission
- Engaging in behavior prohibited by an instructor
- Multiple submissions of the same work in different courses without instructor permission
- Deliberately damaging or destroying student work to gain advantage
- Unauthorized recording, and/or subsequent dissemination of instructional content

If these definitions are not clear to you, please contact me or our TAs so that we can review them with you. It is important that you fully understand what is and is not permissible in this course.

Any suspected cases of academic misconduct will be handled according to university regulations, which include:

1. submission of the case material (description of the incident and supporting documents such as an exam, paper, and any communications about the incident) to the College of the Environment Dean's Office
2. suspension of the grade for the quiz, exam, homework, paper or other assignment in question
3. an X grade for the class in the case of the academic misconduct procedure continuing past the end of the quarter
4. a reduction, down to a zero, for the quiz, exam, homework, paper or other assignment in question should the academic misconduct hearing officer find you responsible

For more information, see the College of the Environment's [Academic Misconduct Policy](#) and the [Community Standards and Student Conduct](#) website.

Please note that we use SimCheck tool in Canvas to identify potential instances of plagiarism. You can read more about this tool [here](#).

STUDENT ACADEMIC GRIEVANCE PROCEDURES

The College of the Environment [Student Academic Grievance Procedures](#) provide mechanisms for enrolled students to address academic problems or grievances in an equitable, respectful and timely manner. Academic grievances are defined as those involving conflicts between a student or students and their course instructors (including faculty and teaching assistants) or research mentor(s) with respect to differences arising within credit-bearing work and while the student is registered at the University of Washington. If you have or are experiencing such a conflict in this class, and have not, cannot, or do not wish to attempt resolution with me, I encourage you to explore additional options open to you by accessing the website above.

SAFETY

If you feel unsafe or at-risk while taking this or any course, please contact [SafeCampus](#), 206-685-7233 anytime where you can anonymously discuss safety and well-being concerns for yourself or others. SafeCampus can provide individualized support, discuss short- and long-term solutions, and connect you with additional resources when requested. For a broader range of resources and assistance see the [Husky Health & Well-Being](#) website.

SEX- AND GENDER-BASED VIOLENCE AND HARRASSMENT

UW, through [numerous policies](#), prohibits sex- and gender-based violence and harassment, and we expect students, faculty, and staff to act professionally and respectfully in all work, learning, and research environments.

For support, resources, and reporting options related to sex- and gender-based violence or harassment, visit [UW Title IX's webpage](#), specifically the [Know Your Rights & Resources](#) guide.

Please know that if you choose to disclose information to me about sex- or gender-based violence or harassment, I will connect you (or the person who experienced the conduct) with resources and individuals who can best provide support and options. You can also access those resources directly:

- Confidential: [Confidential advocates](#) will not share information with others unless given express permission by the person who has experienced the harm or when required by law.
- Private and/or anonymous: [SafeCampus](#) provides consultation and support and can connect you with additional resources if you want them. You can contact SafeCampus anonymously or share limited information when you call.

Please note that some senior leaders and other specified employees have been identified as [“Officials Required to Report.”](#) If an Official Required to Report learns of possible sex- or gender-based violence or harassment, they are required to call SafeCampus and report all the details they have in order to ensure that the person who experienced harm is offered support and reporting options.

Title IX website: <https://www.washington.edu/titleix/>

Support and help page: <https://www.washington.edu/titleix/resources/>

Confidential advocates: <https://www.washington.edu/sexualassault/support/advocacy/>

SafeCampus: <https://www.washington.edu/safecampus/>

Officials Required to Report: <https://www.washington.edu/titleix/title-ix-officials-required-to-report/>

Related policies: <https://www.washington.edu/titleix/policies/>

UNIVERSAL FORMATTING GUIDELINES FOR ACADEMIC ONLINE COMMUNICATION

When communicating online, it is important to keep in mind the below guidelines for appropriate communication. Following these protocols will enable students to represent themselves well and indicate respect for their colleagues and teachers. The below guidelines are quoted from the [UW Integrated Social Sciences Program](#).

1. AVOID SHOUTING - typing in all caps a lot of the time makes it seem like you're shouting and is considered to be impolite. Occasional use of all caps to emphasize an important POINT can be effective (e.g., in discussion forums), but OVER-USNG ALL CAPS IS NOT A GOOD IDEA.
2. No, really; don't shout!!! - one exclamation point is enough.
3. Chek yer speling and grammer error's - always read over your message for errors before sending it. If you're using your phone to type, this is especially necessary. If you're not great with spelling and punctuation rules, use a spell check/grammar check that will underline questionable words and punctuation.
4. BTW, abbreviations make it hrdr for ur reader 2 understand U - it only takes a second or two to type out the word or phrase, so show that you care by typing whole words.
5. Don't overuse emoticons :-) or other text art >^..^< - and don't use them at all in a message to someone you don't know well. We would like you to be able express your ideas in writing and not lean on emoticons to express thoughts that are better personalized with prose.

Stick to one font type, size, and color - use bold and italics sparingly to draw attention to individual words.