

PPPM 340: Climate Change Policy Fall 2021 (CRN 15210)

Class: 10-11:20, Tuesday and Thursday, 248 GER

Prof. Grant Jacobsen

Office: 128 Hendricks Hall

Email: gdjaco@uoregon.edu

Office Hours: 11:30-1:30, Wed.*

He/him/his

Course GTF: Angela Arrington

Office: Virtual

GTF Email: angela@uoregon.edu

GTF Office Hours: Tu, 11:30-12:30**

**My office hours will be conducted through Zoom. To attend office hours, please go to <https://grantjacobsen.youcanbook.me/> and choose a time that works for you. When the meeting time arrives, you can access my Zoom room using this link:*

<https://uoregon.zoom.us/j/4283464824>.

*** Office hours will be conducted through Zoom. To attend office hours, please go to <https://angelaarrington.youcanbook.me/> and choose a time that works for you. When the meeting time arrives, you can access my Zoom room using this link:*

<https://uoregon.zoom.us/j/93854388702?pwd=K1J6S1kzOCtnZXprNmhtNisvT3Fndz09>

COURSE DESCRIPTION

Climate Change Policy (PPPM 340) provides an overview of important policies related to climate change. The beginning of this course will cover some of the fundamentals of climate change and climate change policy and the remainder will focus on examining the design and effectiveness of specific policies. Some topics that will be covered are cap-and-trade, carbon tax, carbon offsets, energy efficiency, renewable electricity, alternative fuels, the endangerment finding, nuclear power, and geoengineering.

Due to Covid-19, certain course / classroom policies may need to be enacted (e.g. mask-wearing protocols). See the first module listed in canvas for details related to Covid-19 and our class. These protocols may be revised as Covid-19 related circumstances change.

STUDENT LEARNING OUTCOMES

Following completion of this course, students will be able to:

1. Analyze issues related to climate change policy based on both equity and efficiency criteria.
2. Evaluate major components of climate change policy, including cap-and-trade, carbon tax, carbon offsets, carbon markets, international climate agreements, transportation policies, energy efficiency policies, renewable electricity policies, and the clean air act.

3. Write clearly and persuasively about climate change policy.

COURSE STRUCTURE

Textbook, Readings, and Software

Assignments and Course Grades

Course grades will be based on the following components:

<u>Component</u>	<u>Percentage</u>
Canvas Questions	20%
Midterm Exam	27%
Writing Assignment	15%
Final Exam	38%

- **Pre-Class Canvas Questions**

With the exception of exam days, there will be a quiz due before each class. These questions will be posted two days before the class period to which they correspond and, unless otherwise noted, must be completed by 45 minutes before class on the day to which they correspond. The quizzes will often be comprised of one question based on the previous lecture and one question based on one of the shorter readings for the new lecture. Each quiz will appear in the Quizzes tab in Canvas and has a title that corresponds to the date by which it is due. To allow for missed quizzes due to extenuating circumstance / forgetfulness, each student's two lowest scores will be dropped.

- **Written Assignments**

There will be one writing assignment. Detailed instructions for this assignment will be distributed later in the course. The due date is listed on the course schedule.

- **Exams**

There will be one mid-term exam and a comprehensive final exam. **Exams will be completed online through Canvas during our regularly scheduled meeting time.**

CLASSROOM DETAILS AND ACADEMIC POLICIES

Course Website

The course website is located on the University of Oregon's Canvas system. The class syllabus, announcements, and other materials will be posted on the Canvas site. Please check the course website frequently for updates.

Calculators

Only basic calculators will be allowed during exams (i.e. no graphing calculators, no cell phones).

Classroom Policies

The classroom is a place of focused learning. This requires that everyone arrive on time, stay until the end of the class period, not disrupt the class by leaving the room temporarily, and refrain from non-learning activities.

- **Environment:** In order to create a classroom in which everyone is comfortable expressing his/her opinions and perspectives, please approach the contributions of others with both an open mind and a willingness to question one's own assumptions and biases.
- **Laptops/phones:** The use of laptops or phones/smartphones during lecture is not permitted.
- **Food:** Please avoid eating in class. Drinks are fine.

Professional Practice

You are expected to behave in a professional manner at all times.

- All students should treat one other and the instructor with the professional courtesy and respect expected in a workplace.
- All communications relating to this course and all work turned in for this course should reflect professional standards in tone, presentation, formatting, and spelling.
- All course assignments should be completed using a word processor.

Email

I will try to respond to all email within 48 hours of receiving them. Please make sure that you have reviewed Canvas and the syllabus prior to asking any question about course logistics. Please do not send notifications if you need to miss a class for a routine matter such as a doctor appointment or job interview.

Grading Scale

Letter grades are mostly based on conventional academic scales. To the extent possible, I attempt to set cut points for each letter range based on natural breaks in the distribution of student scores. This adjustment typically helps students. It also reduces the probability that a single point here-or-there is pivotal in a student's final grade.

Missed Class Policy

If you must miss a class, please arrange to get class notes from a classmate.

Missed Assignments / Exams

Make-up exams or extensions on assignment deadlines will be allowed only in the case of a documented emergency or documented serious illness. Arrangements must be made to take an exam early when absences are required due to approved university activities. If you miss a mid-term due to a documented emergency or documented serious illness, your final exam will be re-weighted to account for the missed mid-term.

Policy on Assigning an Incomplete Grade

You are expected to turn in all assignments at the designated time. In accordance with university regulations, an incomplete will only be given when “the quality of work is satisfactory but a minor yet essential requirement of the course has not been completed for reasons acceptable to the instructor.”

Academic Misconduct

Academic misconduct is prohibited and includes, but is not limited to, tampering with grades, resubmitting assignments for more than one class, cheating, plagiarism, fabrication, and furnishing false information. Please see the Dean of Student’s web site for the complete definition of academic misconduct. You are responsible for ensuring that your actions do not constitute academic misconduct. If there is any question about whether an act constitutes academic misconduct, it is your obligation to clarify the question with the instructor before committing or attempting to commit the act. By way of example, students should not give or receive (or attempt to give or receive) unauthorized help on assignments or examinations without express permission from the instructor.

Violations of Course Policies

Students who fail to adhere to the guidelines described in this section may receive an F for the course, and may be subject to additional penalties from the Department or the University.

OTHER INFORMATION

Math Review

This course requires some familiarity with basic concepts in mathematics and algebra at the high school level. The following (optional) book might be helpful for students seeking a review of some basic high school math skills.

- Schaum's Outline of Elementary Algebra, 3rd Ed, by Barnett Rich and Philip Schmidt. Schaum’s Outline Series, McGraw-Hill, New York, ISBN 0-07-141083-X.

Writing Lab

If you would like to improve your writing skills, I strongly encourage you to use the services of the Writing Lab. The Writing Lab begins week two of the term and closes at 5:00 pm the Wednesday of finals week. Free tutoring is available on a drop-in basis or by appoint. (You must go to the writing lab to schedule your appointment.) 9:00am – 5:00pm, Monday – Friday, 72 PLC (Prince Lucien Campbell).

Documented Disabilities

Students who have a documented disability and anticipate needing accommodations in this course should make arrangements to see the instructor as soon as possible and should request that the Counselor for Students with Disabilities send a letter verifying the disability.

Workplace Harassment Prevention

I support Title IX and have a duty to report relevant information. The UO is committed to providing an environment free of all forms of prohibited discrimination and sexual harassment, including sexual assault, domestic and dating violence and gender-based

stalking. Any UO employee who becomes aware that such behavior is occurring has a duty to report that information to their supervisor or the Office of Affirmative Action and Equal Opportunity. The University Health Center and University Counseling and Testing Center can provide assistance and have a greater ability to work confidentially with students. UO employees also have a duty to report child abuse. All UO employees are required to report to appropriate authorities when they have reasonable cause to believe that any child with whom they come in contact has suffered abuse or any person with whom they come in contact has abused a child.

Inclusion Statement

The College of Design is a community that values inclusion. We are committed to equal opportunities for all faculty, staff and students to develop individually, professionally, and academically regardless of ethnicity, heritage, gender, sexual orientation, ability, socio-economic standing, cultural beliefs and traditions. We are dedicated to an environment that is inclusive and fosters awareness, understanding, and respect for diversity. If you feel excluded or threatened, please contact your instructor and/or department head. The University Bias Response Team is also a resource that can assist you.

COURSE SCHEDULE

Below is a tentative outline of the course sessions with assigned readings. Dates for some topics will inevitably change. Please rely on the class Canvas account for up-to-date information on class readings.

<u>Date</u>	<u>Topic</u>	<u>Main Reading</u>	<u>Supplementary Reading</u>
Sep. 28	Intro and Overview	<ul style="list-style-type: none"> • Illing, "Climate change: Bill McKibben's Advice for Activists," Vox, 2019 • McKibben, "Global Warming's Terrifying New Math," Rolling Stone, 2012 	<ul style="list-style-type: none"> • Fountain, Migliozi, and Popovich, "Where 2020's Record Heat Was Felt the Most," NYTimes, 2021
Sep. 30	Energy and GHG Background	<ul style="list-style-type: none"> • EPA, "Executive Summary," 2021 GHG Inventory • EIA, "Overview," 2021 Annual Energy Outlook Early Release • EIA, "Executive Summary," 2020 Intl. Energy Outlook 	<ul style="list-style-type: none"> • Pierre-Louis and Popovich, Climate Change Is Fueling Wildfires Nationwide, New Report Warns" NYTimes, 2018.
Oct. 5	Benefit Cost Analysis and the Social Cost of Carbon	<ul style="list-style-type: none"> • Wagner et al, "Eight Priorities for Calculating the Social Cost of Carbon," Nature, 2021 	<ul style="list-style-type: none"> • Chemnick, "The Cost of Carbon Pollution," Scientific American, 2021.
Oct. 7	Markets and Externalities	<ul style="list-style-type: none"> • Mankiw, "The Market Forces of Supply and Demand" 	<ul style="list-style-type: none"> • Clark, "Why Do Economists Describe Climate Change as a Market Failure?"
Oct. 12	Correcting Externalities - Part 1	<ul style="list-style-type: none"> • Gruber, "Externalities: Problems and Solutions" 	<ul style="list-style-type: none"> • Wagner, "Going Green but Getting Nowhere," NY Times, 2011 • Lowrey, "All That Performative Environmentalism Adds Up," the Atlantic, 2020.
Oct. 14	Correcting Externalities - Part 2	<ul style="list-style-type: none"> • Gruber, "Global Warming" 	<ul style="list-style-type: none"> • Porter, "Does a Carbon Tax Work?," NY Times, 2016
Oct. 19	Cap and Trade vs. Tax	<ul style="list-style-type: none"> • Sachs and Stavins, "Cap and Trade vs Carbon Tax" • Stavins, "Carbon Taxes vs. Cap and Trade: Theory and Practice," Harvard Project on Climate Agreements, 2019 	<ul style="list-style-type: none"> • Borenstein, "Understanding and Refining Emissions Markets," Energy Exchange, 2020.
Oct. 21	Offsets	<ul style="list-style-type: none"> • Schapiro, "Conning the Climate," Harper's, 2012 	<ul style="list-style-type: none"> • Fowlie, "Are Trees Getting Too Much Climate Credit...or Not Enough?," Energy Exchange, 2019
Oct. 26	Allocation and Revenue	<ul style="list-style-type: none"> • Pew, "GHG Allowance Allocation," Congressional Policy Brief 	<ul style="list-style-type: none"> • Curry, "Cap-and-Trade Funding Will Go For Electric Vehicles, Other Programs–But Not Transit Passes," StreetsBlog, 2017.
Oct. 28	Experience with Carbon Policies	<ul style="list-style-type: none"> • Fischer and Jacobsen, "The Green New Deal and the Future of Climate Policy," JPAM, 2021 • Carley and Konisky, "What we can learn from the Green New Deal about the importance of equity in 	<ul style="list-style-type: none"> • Plumer and Popovich, "These Countries Have Prices on Carbon. Are they Working?" NYT, 2019.

national climate policy,” JPAM, 2021

Nov. 2	<u>MIDTERM</u>		
Nov. 4	International Action	<ul style="list-style-type: none"> • Pew Center, “Climate Change 101: International Action” • Olmstead and Stavins, “Three Key Elements of a Post-2012 International Climate Policy Architecture,” REEP, 2012 	<ul style="list-style-type: none"> • Pew Center, “History of UN Climate Talks”
Nov. 9	Sub-International Action	<ul style="list-style-type: none"> • Bushnell et al., “Local Solutions to Global Problems: Climate Change Policies and Regulatory Jurisdiction,” REEP, 2012 	<ul style="list-style-type: none"> • Caldego, “California should link carbon market with Europe, Jerry Brown says,” SacBee, 2017.
Nov. 11	Energy Efficiency Policies	<ul style="list-style-type: none"> • Gillingham et al., “Advances in Evaluating Energy Efficiency,” Annual Review of Resource Economics, 2018 	<ul style="list-style-type: none"> • Taves, “Study Suggests Building Codes Can Cut Energy Use,” Wall Street Journal, 2014
Nov. 16	Renewable Electricity Policies	<ul style="list-style-type: none"> • Schmalensee, “Evaluating Policies to Increase Electricity Generation from Renewable Energy,” REEP, 2012 	<ul style="list-style-type: none"> • Sickinger, “BPA Curtails Wind Farm Electricity Generation,” OregonLive, 2011. • Wolfram, “What Drove Solar PV Price Reductions?,” Energy Exchange, 2019.
Nov. 18	<u>GUEST SPEAKER</u>	Caroline Moore, Division Administrator, Oregon Public Utility Commission	READINGS TO BE DISTRIBUTED LATER
Nov. 23	Transportation Policies	<ul style="list-style-type: none"> • McConnell and Leard, “Pushing New Technology into the Market: California’s Zero Emissions Vehicle Mandate” REEP, 2021 	<ul style="list-style-type: none"> • Plumer, Popovich and Migliozi, “Electric Cars Are Coming. How Long Until They Rule the Road?,” NY Times, 2021
Nov. 25	<u>NO CLASS</u>	<u>THANKSGIVING</u>	
Nov. 30	Nuclear; Geoengineering and Adaptation,	<u>DUE: WRITING ASSIGNMENT</u> <ul style="list-style-type: none"> • Davis, “Prospects for Nuclear Power,” JEP, 2012 	<ul style="list-style-type: none"> • Bokst-Lindell, “Is there a nuclear option for stopping climate change?,” 2021 NYTimes • Toplensky, “Carbon Capture is Key to Companies Net Zero Pledges,” WSJ, 2021
Dec. 2	Smart Grid and Course Summary	<ul style="list-style-type: none"> • Pew Center, Climate TechBook Entry on Smart Grid 	<ul style="list-style-type: none"> • Kolbert, “A New Day for the Climate,” New Yorker, 2021.
	<u>FINAL EXAM</u>	<u>The final exam is scheduled for 8am, Wednesday, December 8</u>	