

Sabbatical Leave Report
Climate Change Project
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This report summarizes the sabbatical project I completed during the Fall 2021 semester. I thank the Board of Trustees for approving my sabbatical and making it possible for me to pursue my project.

Background and Purpose of Sabbatical Project

I've long been interested in environmental issues. As a graduate student at UCSB, I worked with folks in the Environmental Studies Department as well as the Political Science Department. I also worked with Steve Palladino to create the Environmental Science and Resource Management (ESRM) program at Ventura College. I created and teach a course within that program called Environmental Policy and Natural Resource Management (ESRM V03/POLS V10). Within the VC Political Science Department, however, we don't have an Environmental Politics class or a class on climate change.

However, as the issue of climate change has increased in saliency, I've wanted to bring this issue into some of my classes. Climate change cuts across many of the disciplines of political science. There are ethical issues that fit into political theory (POLS V04), policy issues in American and California government (POLS V01), comparative climate policy issues in Comparative Government (POLS V02), and lots of "tragedy of the commons" types issues in international relations (POLS V05). The Introduction to Political Science course (POLS V03) includes some of all these areas of political science. Very few textbooks, however, integrate climate change or environmental issues into their core course content. This was my challenge: how to integrate climate change as a case study into political science classes. Because climate change is such a global problem, I needed a textbook that had a global focus while also bringing in climate change as a topic frequently.

For literature reviews and ideas about how to teach climate change in political science, I leaned on two UCSB faculty: Dr. Leah Stokes, an expert on energy policy in the Political Science Dept. ([Leah Stokes | Department of Political Science - UC Santa Barbara \(ucsb.edu\)](#)) and Dr. Ken Hiltner, who teaches courses on climate change in the English Department at UCSB. ([The Climate Crisis: What It Is And What Each of Us Can Do About It | UCSB English Department](#))

Completed Components of Sabbatical Project:

--Complete Overhaul of Introduction to Political Science Course (POLS V03)

After much research, I was able to find an open access Introduction to Political Science text (part

of Rice University's OpenStax textbook program). This free online textbook is a *global* introduction to Political Science and brings in *climate change* frequently throughout the text. Since I teach multiple sections of this course every semester, this was a serious overhaul. I used the book for the first time in Fall 2022, for five sections of POLS V03. What follows are the ways that I supplemented this text with materials on climate change:

The book is broken into four sections: 1. The individual, 2. Groups, 3. Institutions, and 4. States and International Relations.

Section I: The Individual

This first section of the book includes five chapters covering key concepts, political behavior, political ideologies, civil liberties, and political participation. For the first section, I wanted to complement key themes the book covered with material on climate change that focused on the role of the individual. This was a great way to get students to immediately see how their personal choices affect climate change. First, though, I wanted to get them some basic information about climate change. I had students watch a powerful National Geographic film called *Before the Flood* ([Before the Flood Full Movie National Geographic - YouTube](#)) with Leonardo DiCaprio. I created a short discussion assignment in Canvas and many students commented that this film really helped them understand the issue better.

I also used some chapters from Peter Kalmus' *Being the Change: Live Well and Spark a Climate Revolution*. I was able to find a free version of this text and had students read some relevant chapters ([Read by Chapter: Being the Change - Peter Kalmus](#)) Dr. Kalmus is an earth scientist at CalTech and Ch 4 of his book outlines the basics of climate change. Fortunately, he writes well and students could get the basics of how climate change works without getting lost in too much detail. I've also found some other helpful short videos and articles about the basics of climate change that I may integrate into this section in the future.

Some of the other chapters in his book also helped to "individualize" the issue. Much of the book is his story about how he decided to stop burning fossil fuels as much as he could. He offers up some powerful tools for students to convert their emissions into Greenhouse Gas Equivalents (GGEs) so as to create an overview of how much GGEs they are creating in their daily lives. For example, a student can calculate how many GGE's they are emitting when they drive their car, eat food, use electricity, etc. This makes the issue less abstract and allows students to actually see and measure the process for themselves.

Another powerful resource I found was a podcast called *A Matter of Degrees*, ([A Matter of Degrees - stories for the climate curious \(degreespod.com\)](#)) produced by Dr. Leah Stokes and Dr. Katharine Wilkinson. I've listened to almost all of the three seasons of this podcast and deepened my knowledge of climate change issues. For this part of the course, I had students listen to one episode of the podcast called *What Can I Do? Part i—The Personal* (["What Can I Do?" Part 1 — The Personal — A Matter of Degrees \(degreespod.com\)](#)). The podcast covered many actions that an individual could take, including switching away from major banks lending money to the fossil fuel industry to climate change friendly banks as well as electrifying our homes and transportation.

In the civil liberties section of this chapter, I used a video included in the OpenStax text to

create an assignment related to climate change. Here's a copy of the assignment: ([Read CH 4-- Civil Liberties](#)--and then write down one question you have. Then, in Section 4.6 (The Right to a Healthy Environment), watch the 60 Minutes video [Juliana v United States: The Climate Lawsuit](#). What is your reaction to this video? Do you believe the US should add a right to a healthy environment to the US Constitution? Why or why not? Elaborate and respond to three other students.) Having a section (one of six) in this chapter focused on "The Right to a Healthy Environment" is an example of how this text integrates climate change issues into its overall content nicely. Many students were interested in the 60 minutes video and we had a good class discussion about the way young people and future generations will bear the brunt of climate change.

In the chapter on political participation, I created the following assignment: Read CH 5- Political Participation and Public Opinion. Then browse this short summary [Californians Want the Government to do more about Drought, Wildfire, and Climate Change. Links to an external site](#). Once you've read this, find out who represents you in the California legislature by clicking here. Then click on EITHER your state assembly person or state senator and email them a short paragraph about one of the issues (drought, water, or climate change), either encouraging them to act and/or asking for more information about the topic. Cut and paste your email into this assignment and then respond to three other students' posts.

I'm also finding that linking climate change to the local environment seems to be a good way to get students focused on this topic. One way to do this is to connect the issue to drought and wildfire, which we've had plenty of here in California and Ventura County. This was also a way to connect climate change to state and local government, which I did in a section later in the course.

To explore the power of the individual to make change, we also compared the role of Greta Thunberg to other activists throughout history, such as Gandhi and Martin Luther King. I showed students a short video of Greta Thunberg and youth climate activists ([Beyond Greta Thunberg: The uprising of youth climate activists - YouTube](#)) We explored the issue of how individual actions can lead to powerful collective change. This fit in well with the chapters on political behavior and political participation.

One of the themes I explored in this section was the relationship between personal change and collective action. What I found in much of the literature is how the psychology of these two ways of thinking about climate change are interconnected. While individual changes are useful, we really need larger systemic changes. However, it seems that one of the best ways to get individuals to engage in group activities (joining organizations, volunteering, protesting, etc.) is to have them get interested in an issue personally.

To this end, I created an extra credit project where students had to calculate their current greenhouse gas emissions, and then figure out a way to reduce these by the end of the semester. Then the students had to figure out what kind of changes they could make in one semester. I mentioned the options of riding bikes more, taking the bus, eating less meat, using less electricity, etc. Students were then invited to document these changes through videos and then write a paper and create a presentation at the end of the course. Within the Canvas course shell, I created a module full of resources for students to learn more about this issue.

Section II: Groups

This section of the book includes three chapters (CH 7: The Fundamentals of Group Political Activity, CH 8: Civil Rights, and CH 9: Interest Groups, Political Parties, and Elections). Chapter seven uses the concept of the “tragedy of the commons,” which is a very useful concept to analyze climate change issues. I created the following assignment for this chapter: [Read CH 6 -- The Fundamentals of Group Political Activity](#) and listen to [NPR: Climate Change is Victim to "Tragedy of the Commons." Links to an external site.](#) Then explain, in your own words, what the "tragedy of the commons" means. Can you think of other real-world examples that illustrate the logic of the "tragedy of the commons"? Why is the global climate crisis a good example of a potential tragedy of the commons? Elaborate and respond to three other students.

I also integrated a role-playing game into class that highlights the dynamics of the “tragedy of the commons.” Using M&Ms, small cups, paper plates, and spoons, students simulate being a fisherman/woman (the spoon is the fishing pole) and over-using a common pool resource (the M&M’s are the fish; the plate is the ocean). Students go through multiple timed iterations of “fishing seasons” so as to learn how to cooperate to not over-use the common pool resource. This experiential game allows them to get a feeling behind the psychology of the “tragedy of the commons,” one of the key concepts in this chapter. We had a long class discussion about how this same psychology lies underneath the inability to get countries to cooperate enough on climate change issues. I also included some videos explaining the “tragedy of the commons” for this week.

Students also read CH 2 of Peter Kalmus’ *Being the Change: Live Well and Spark a Climate Revolution* for this section. ([Being the Change: Chapter 2. Beyond Green - Peter Kalmus](#)) The author focuses on the importance of limiting our energy use. The chapter also explores how the language and narratives we use to talk about climate change are important. We had a class discussion exploring the importance of not feeling shamed or guilty about climate change, as this tends to disempower people. Kalmus does a good job here exploring the underlying psychology of climate change behavior and how important this is.

For the chapter on “Interest Groups, Political Parties, and Elections,” we happened to be covering this during Brazil’s presidential elections. Since the Amazon is in Brazil, and such a huge part of the climate change equation, I decided to use the Brazilian Amazon as a case study to learn both about how Brazil’s political system works as well as how this huge rainforest plays a role in climate change. ([Amazon Deforestation and Climate Change | National Geographic Society](#)) Since one candidate (the outgoing president Bolsonaro) favored developing the Amazon with dire ecological consequences, and the other candidate (Lula) favored protecting the Amazon, it was a perfect case study to learn about how institutions (elections, parties, legislatures, presidency, courts) work in Brazil as well as the role that rainforest play in absorbing (or releasing—when burned) carbon dioxide into the atmosphere. I created a separate case study module in Canvas called “Brazil’s Amazon rainforests” and we watched some videos

located here during class. ([Opinion | Brazil's Presidential Election Will Determine the Planet's Future - The New York Times \(nytimes.com\)](#))

Section III: Institutions

This section of the book includes CH 9: Legislatures, CH 10: Executives, Cabinets, and Bureaucracies, CH 11: Courts and the Law, and CH 12: The Media. Besides focusing on American political institutions, there is a heavy emphasis on parliamentary and semi-parliamentary systems. To integrate issues about climate change, I chose to create a case study of The Inflation Reduction Act, the recently passed U.S. law that tackles climate change issues (as well as some health care issues). We discussed this law frequently in class during this section, using it as a way both to explain the way legislatures work as well as a policy the government is using to deal with climate change. This is also a fruitful area to compare US policies for dealing with climate change with some of our European partners.

I created an extra credit assignment for students to dive into the Inflation Reduction Act. For this assignment, I tracked down multiple sources to help students do their research and posted them in Canvas. Here's a copy of the paper assignment:

Climate Change Project: The Inflation Reduction Act and Climate Change

Write a 5-7 page paper explaining how the Inflation Reduction Act passed through Congress and what the major provisions of the Act are for climate change. Be sure to examine the strategy that Democrats used to get the bill passed as well as the details of what's in the bill regarding climate change. Also, how is the bill paid for? What are the weaknesses of the bill? In your judgement, is it overall a good bill? Why or why not?

In CH 12: The Media, I created an assignment relating climate change to the concept of "framing," a key theme in this chapter: [Read CH 12 Links to an external site.](#)--The Media--and read [The Carbon Footprint ShamLinks to an external site.](#) [Links to an external site.](#) What is the main argument of this article? Is the author persuasive? Why or why not? How does this article illustrate the concept of "framing" laid out in your book? Elaborate and respond to three other students.

Regarding the media and communication, I did come across a very useful website called the Yale Program on Climate Change: <https://climatecommunication.yale.edu/>. The site has many resources and I'm hoping to create some assignments with this for next semester.

Section IV: States and International Relations

This section of the book has four chapters—CH 13 Governing Regimes, CH 14: International Relations, CH 15: International Law and International Organizations, and CH 16: International Political Economy. This section of the course examines how countries interact with each other, the nature of globalization, and the dynamics of the international system. Climate change issues fit in well with this section, including the role of the UN's International Panel on Climate Change (IPCC) and the annual Conference of the Parties (COP) meetings related to climate change. We discussed the Paris Agreements and the importance of getting countries to cooperate to tackle climate change. The text included plenty of examples of climate diplomacy and issues about how countries in the North would relate to developing countries, especially India and

China regarding climate change. Following are some of the supplemental assignments I created in this section regarding climate change:

In the chapter on International Relations, I created: Watch [Climate Justice is Social JusticeLinks to an external site.](#)

What does this video say about the past, present, and future regarding climate justice? What else did you learn from this video?

And then watch [Why its hard to care about climate changeLinks to an external site.](#)

Is it hard for you to care about climate change? Why? Did the video help you understand this problem better? Why or why not? Elaborate and respond to three other students.

We also watched a short video in class this week about the flooding in Pakistan and how climate change contributed to this disaster: <https://www.youtube.com/watch?v=7yXEqb0HWdk>.

This, and other themes like this, point to a deep ethical issue regarding climate change that we discussed in class more than once: most of the greenhouse gases causing climate change were caused by developed countries but most of the suffering caused by climate change is happening in developing countries.

For the next week on International Law and International Organizations, we dove into how the United Nations operates and used climate change issues as case studies. I created this assignment: [Read CH 15 Links to an external site.](#)--International Law and International Organizations--and watch; [From Madagascar to Iraq, climate change is casting a wide net I DW NewsLinks to an external site.](#)

How is climate change affecting Madagascar and Iraq? What are international organizations, like the UN, trying to do to help the situation? Elaborate and respond to three other students.

In discussing the United Nations in more detail, I created this assignment as well, which included a video outlining the role the UN plays regarding climate change:

Watch the following videos about the United Nations

[How Does the United Nations Work Links to an external site.](#) (RMIT University)
[Nations United: Urgent Solutions for Urgent TimesLinks to an external site.](#)

Describe three scenes from the Nations United video that impressed you the most. Elaborate and respond to three of your classmates.

In the chapter on International Political Economy, the OpenStax text brought in the theme of “de-growth” vs sustainable development. Section 16.6 of this chapter is titled “Considering Poverty, Inequality, and the Environmental Crisis,” another example of how this text integrates climate change throughout. For this chapter I created two assignments related to climate change: [Read CH 16 Links to an external site.](#)--International Political Economy--and watch [Degrowth: Is it time to live better with less?Links to an external site.](#)

Write a dialogue between two characters--one promoting "degrowth" and the other promoting economic growth through "sustainable development" (refer to section 16.6 in your text). Create a setting and two characters with names and then have them engage in a dialogue about this issue. Then respond to three other students' posts.

Students like these types of “dialogue” assignments, as it allows them to be a bit creative in their answers. I also created:

Solar Panels--I-PEEL

Read the short piece on [Solar Panels in IPEEL](#)[Links to an external site.](#)

What did you learn from reading this? Is the author persuasive to you? Why or why not? Elaborate and respond to three other students.

The last week of this course dealt with California State and Local Government, an area that I also need to cover in this class. Since the OpenStax Introduction to Political Science did not cover this material, I added a one week section where I borrowed some state and local government content from the free online OpenStax American Government text. I supplemented this with a short reading about the history of the California Constitution. And, then, to bring in climate change content yet again I created:

California Climate Change: Fires, Floods and a Fight over Free Parking

Read [Fires, Floods, and Free Parking](#)[Links to an external site.](#)

What are some of the main points of this article? Did you learn anything that surprised you? Elaborate and respond to three other students.

Besides integrating climate change into this entire course, I also created exams, quizzes, and matching tests for each of the chapters in the book. We covered many other topics besides climate change in the course so I had to work on creating many more discussions and lectures as well. Still, I was able to weave climate change throughout the course as a semester long “case study” which allowed us to learn how governments and institutions work while at the same time deepening students’ understanding of climate change.

Work in Progress—Integrating Climate Change Ethics into Political Science V04 (Political Theory)

Another course I teach each semester is Political Theory. This class asks more normative questions about political science, such as what is justice?, what is fair?, etc. I read quite a few articles about the ethics of climate change and am in the middle of a book by Catriona McKinnon called *Climate Change and Political Theory*. Her book brings up questions of justice, especially the tension between developed and developing countries and what a just solution to this dilemma might be. There are lots of issues about fairness, transfer payments, climate refugees, etc. that I could weave into this course. Now that I have the POLS V03 (Introduction to Political Science) course set up and have climate change content well integrated throughout the class, I’m hoping to work on this for POLS V04 more next semester.

Value of Sabbatical Project to Ventura College Students

Integrating climate change into the Introduction to Political Science course through the OpenStax Introduction to Political Science open access book and the supplemental materials I

created has lots of benefits for students. First of all, the entire course is open access. I worked hard to make sure that students would not need to spend any money on books or access codes or what have you. 100% Free!

This book and its content should enliven the teaching and learning process for hundreds of students as well. Here is an issue that many students genuinely care about that can teach them about government and politics at the same time that they dive into this issue. I also created some experiential games that help students get more involved in the learning process, such as the tragedy of the commons game. I asked and received a lot of informal feedback from students about the book and almost all say they enjoyed the online open access content.

Finally, the knowledge and course content I developed over the sabbatical will be useful for me, and benefit the students, the next time I teach the Environmental Policy and Natural Resource Management Course (ESRM V03/POLS V10).

Value of Sabbatical to the Instructor

I gained a much deeper knowledge of the dynamics of climate change: the science behind it, the way governments create policy to solve the issue, the global nature of the problem, and the ethical dimensions as well. Having the time to immerse myself in books, articles, films, podcasts, and deep conversations with colleagues has re-invigorated my teaching.

Value of Sabbatical to VCCCD and Ventura College

The very complexity of climate change makes it an inter-disciplinary topic. As such, it offers colleagues from across disciplines the opportunity to work together across traditional institutional boundaries. I'm hoping to continue my collaboration with Steve Palladino to better promote the Environmental Science and Resource Management program here at VC. I have no doubt that more and more jobs will be created in this field in the future. I'm also continuing to collaborate with Dan Walsh, the faculty advisor for the Environmental and Outdoor Student Organization (EOSO) on campus. Building a more robust ESRM program and EOSO club on campus should be of real value for our college and district.

Thank you for this opportunity,

Respectfully yours,

Dr. Robert Porter
Professor of Political Science
Ventura College

