

It's Getting Hot in Here: The Politics & Science of Climate Change

EV 128/PS 203 | Blocks 1 & 2, 2016

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Goals and Scope of the Course

This course approaches the problem of climate change using both social and natural science perspectives. By the end of the two blocks you will have a solid understanding of the climate system, how climate changes over both short and long time scales, and the impacts that a changing climate has on society. In addition, you will also understand the public policymaking process, how and why policies evolve over time, and the relationship between society and the policy process. This will allow us to discuss the current state of climate policy, specifically the disconnect between scientists, the public, and lawmakers.

We expect you to leave this class better prepared to make day-to-day decisions based on sound understanding, accurate information, and reasonable conjectures, regardless of the exact career path that you take. You can expect to learn the following things:

- What the term 'climate' refers to and how it varies spatially
- What factors influence climate at any one place
- What the possible causes of climate change are over time
- How current and historical events shape/d public policy
- The importance of storytelling & knowing your audience
- How climate impacts other aspects of the surface environment & the ability of humans to utilize this environment (e.g. live, farm, or otherwise occupy it)
- The role of ideology in the current climate debate
- How humans have responded to climate change in the past
- Climate change and associated impacts in the immediate future and possible human responses

Required Reading

- Dessler, Andrew. 2016. *Introduction to Modern Climate Change*. 2nd edition. Cambridge University Press.
- Baumgartner, Frank and Bryan Jones. 2002. *Agendas and Instability in American Politics*. 2nd edition. University of Chicago Press.
- Scholarly articles and news media pieces will be posted to Canvas.

Class Structure

Classes will begin at 9 AM and will involve a mix of lectures, labs, and discussions. There will be some lab activities that we will not be able to complete before 12 PM, we have noted these days on the schedule (see below). While you are not required to come to the afternoon session to finish the lab, we strongly encourage you to block out these times in your schedule so you can take advantage of the time if you need it.

In our sessions we will introduce new concepts, and we will usually do a few exercises during the day to reinforce these concepts. Every evening as a review you should do the assigned reading and make notes on anything that still confuses you. *Many evenings you will need to answer a question about the readings and/or material covered in class on canvas.* This serves multiple purposes: it provides us feedback on concepts you may be having trouble with, helps keep you engaged with the material outside of the classroom, and provides you a way to assess how you are doing (answering these questions will count towards your grade). Each morning we will go over any questions you have before going on to new material – so if you have a question, please ask! Keep in mind that study groups are a great way to learn and review! We encourage you to work with your classmates on the assignments, of course with the exception of exams.

Field Trips

In addition to the above activities, we will be going on a 3 day, 2 night trip to Baca in week 3. You must sign up on Summit https://apps.ideal-logic.com/ccfieldstudy?key=29L66-D685_K9KH-5PTF_9fea3e28 (link is also posted on Canvas) – sign the consent form and fill out the medical form.

Office hours

If you can not make our office hours, please email us to set up a meeting.

Professor Coggins: Mondays & Tuesdays 12:30-2:30

Professor Barnes: Mondays & Wednesdays 1:30 -3:30

Attendance

We will be covering a lot of material in this course, with every day building on the previous day. Therefore it is necessary that you show up for *every* class, with the exception of lab days marked as optional on the schedule. You are allowed **one unexcused absence**. Each subsequent unexcused absence will result in a 3% reduction in your final grade. If you have two unexcused absences, the Dean of Students will be notified. Please note that if you get sick during the block we will do everything we can to help you catch up on the material – but you need to have a note from Boettcher or another doctor for your absence to be considered *excused*.

If you need to miss class for any justifiable reason during the block (e.g., athletic team travel, religious observance), please notify us **on the first day of class** so we can make arrangements on how you will receive the material for that day.

Readings

All readings are posted on Canvas. Complete the readings BEFORE class. You will be held accountable for the reading, so come to class prepared. Being prepared goes beyond reading, however. You should allow for adequate time to *think* about the reading as well--get into a conversation with the author. Where do you disagree? What points are strong? What questions remain after your close reading?

Canvas & Online Questions

We will use Canvas extensively throughout the course. Readings will be posted multiple days in advance in most cases. In addition, there will often be questions posted that you must answer--these questions will be posted by 6 PM for the following day. The goals of these questions is for us to (1) assess your comprehension on material, (2) get you to start thinking about the material prior to classroom discussions, and (3) introduce you to how we ask questions so you are better prepared for quizzes and exams. We realize that sometimes life happens and you aren't able to devote as much time as you want to your courses – therefore, you will be able to drop the lowest score on these questions.

Exams & Assignments

You will have one *exam* in Block 1. It is a take home, closed book exam that should take you approximately 2 hours to complete. It will cover the material describing the earth's climate engine (week 1) and will be posted on Canvas by 2 PM on Friday 9/2. You must complete the exam and upload it to canvas by Saturday (9/3) at midnight.

There will be periodic *quizzes* given in class. These quizzes will focus on information you should have obtained from the reading or the previous lecture(s). Quizzes may be short answer, multiple choice, or short writing assignments.

There will be *three small projects* (labs) - Earth's Radiation Balance, Imaginary Earth, and your Carbon Footprint. The assignments are meant to reinforce ideas we will discuss in class and also challenge you to think creatively and analytically. You are encouraged to work together on all of these assignments but you must submit your own work.

There will be *two large projects*, the **Policy Agenda Project** (weeks 2-4; short paper) and the **Three Prong Project** (week 4; work in pairs). These projects will explore the complexities of climate policy, the actors involved, how climate policy is dis/similar to other social issues in the U.S., and provide you the opportunity to improve your communication skills (both written and orally).

Grading: You will receive a grade for each block in this course, but must complete both blocks to get credit for the required FYE. Grade assignments will follow the following rubric:

- Exam & Quizzes: 20%
- Labs & In-class exercises: 15%
- Policy Agenda Project: 30%
- Three Prong Project Presentation: 20%
- Participation: 15%

Grade Assignment ("+" and "-" will also be given when appropriate):

A = 90-100%

B = 80-89%

C = 70-79% S = 70-100%

D = 65-69% CR= 65-69% NC = below 65%

D+, D, CR, and NC does not fulfill EV or PS Department major requirements.

Late assignment policy

Late assignments will get a deduction of 1/3 of a letter grade (3%) for every day it is late (part of 1 day counts as a day). For example, if the paper is due Monday at 9 AM and you turn it in at 3 PM on Monday, that would count as being 1 day late and the grade would go from a B to B-.

Honor Code

Failure to properly document sources in papers, plagiarism, copying from another student's work, or turning in assignments that have already been submitted for credit in other courses are among some of the actions considered intellectual theft under the Colorado College Honor System. We encourage you to work together and talk through issues, but your final written work must be your own. We will give you further information on how the honor code applies to specific assignments as we go. If you are uncertain about the Honor Code's application to a particular project, please ask me. If you have questions or to read further details of the Honor Code see:

<http://www.coloradocollege.edu/other/honorcouncil/constitution-bylaws/constitution.dot>

Disability Accommodations

If you have a disability and require accommodations for this course, please speak with one of us privately today or tomorrow so that your needs may be appropriately met. You may also simply email us your accommodations letter, if we have questions we can ask you. If you have not already done so, you will need to register with Accessibility Resources (Learning Commons in Tutt Library, 227-8285), the office responsible for coordinating accommodations and services for students with disabilities.

Tentative Course Schedule (next page)

Each day's lectures, labs, and discussions will be based upon a question that we will try and answer. By the end of the course, you should be able to have a meaningful discussion about these questions.

The syllabus and schedule is subject to change depending on progress of the course.

Week 1

Day 1

- Course Introduction & The Earth as a System

Day 2

- Dessler Chapters 1, 2.1, & 3
- Radiation Balance (GIS Lab) - *optional* extra help session from 1:30 - 3:30 PM [Palmer 1 & 2]

Day 3

- Dessler Chapter 4
- *Skim* Archer Chapter 4 [on Canvas]
- GIS Radiation Balance due 5 PM [submitted on Canvas]

Day 4

- Ruddiman 2.3- 2.8 [on canvas]
Optional reading: Kump Chapters 4 & 5 (additional background) [on Canvas]
- Imaginary Earth Lab - *optional* extra help session from 1:30 - 3:30 PM TBA
- Attend *Sondermann Presidential Symposium, Evening Lecture: Donna Brazile*, 7:00pm. Morhman Theatre, Armstrong Hall.

Day 5

- Ruddiman pp 8-13, 30-35 [on Canvas]
- Dessler Chapter 6
- Imaginary Earth Lab due 4 PM [captions submitted on Canvas, maps submitted to Professor Barnes' mailbox, Tutt Science 130]

Over the Weekend...

- **Take home, closed book exam.** Must be completed by **11:59 PM on Saturday** [submitted on Canvas]

Week 2

Day 6

- Baumgartner, Frank and Bryan Jones, Part I: Chapters 1, 2, & 3.

Day 7

- Baumgartner, Frank and Bryan Jones. Part II: Chapters 4 & 6.
- Attend *Sondermann Presidential Symposium, Evening Lecture: David Axelrod*, 7:00pm. Morhman Theatre, Armstrong Hall.

Day 8

- **Guest Lecturer, Susan Hassol** *Communicating the science of climate change*
- Sommerville, Richard and Susan Hassol. 2011. "Communicating the science of climate change." *Physics Today*. [on Canvas]
- Roser-Renouf, Connie, Edward Maibach, Anthony Leiserowitz and Seth Rosenthal. 2016. "Global Warming's Six Americas and the Election, 2016." *Yale Program on Climate Change Communication*. [on Canvas]
- Baumgartner, Frank and Bryan Jones. Part III: Chapter 9.
- Attend *State of the Rockies Evening Lecture: Susan Hassol*, 7 PM Gaylord Room, Worner Center.

Day 9

- **Guest Lecturer, Gwen Ifill** of *Washington Week on PBS*. [9:00am - 10:00am]
- Leopold, Aldo. 1949. "The Land Ethic" from *A Sand County Almanac*. [on Canvas]
- Kingdon, John. Chapters 1, 2, & 3. *Agendas, Alternatives, and Public Policies*. [on Canvas]
- Introduction to the *Policy Agendas Project*. [in class]

Day 10

- **Writing Center Visit**. [9:00am - 10:00am]
- Layzer, Judith. "Defining Problems in U.S. Environmental Politics." In *The Environmental Case: Translating Values into Policy*. [on Canvas]
- Layzer, Judith A. 2012. "Climate Change: The Challenges of International Environmental Policymaking." In *The Environmental Case: Translating Values into Policy*. [on Canvas]

Over the Weekend

- Track your activities Saturday - Tuesday (3 out of 4 days): water & electricity use, travel, & food consumption [excel worksheet on Canvas]

Week 3

Day 11

- **Writing Day**
- First Draft of Paper Due, 12:00pm. Canvas submission.

Day 12 - Baca!

- Dessler Chapter 5
- *Skim* Weathers Chapter 5 [on Canvas]
- Carbon Cycle Exercise (need your computer)

Day 13 - Baca!

- **Guest Lecturer, Ian Johnson**, *Director of Sustainability @ CC* : Institutional Sustainability
- Kates et al. 2001 *Science* [on Canvas]
- Wackernagel et al. 1999 *Ecological Economics* [on Canvas]
- Carbon Footprint Exercise (need your computer)

Day 14 - Baca!

- Carbon Footprint Lab due 5 PM [submitted on Canvas]

Day 15

- **Research & Working Day:** Three Prong Project

Week 4

Day 16

- **Project Presentations**

Day 17

- One-on-One Meetings

Day 18

- **Final Paper Due, 12:00pm.** Canvas submission.