

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

## EV 128/PS 203 | Block 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.
- 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. On several occasions you will be required to attend events and/or class in the afternoon or evening. Please look at the syllabus and put these on your calendar now.

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. Other evenings you will submit discussion questions.* These tasks serve 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 and proposing 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**

We will have one field trip this block on **Tuesday, Sept 27, 2016** to Florissant Fossil Beds National Monument. We will leave from the Tutt Science Circle (east side) at **8 am**. We will be back on campus by 2 pm. Please wear comfortable shoes and be prepared to be outside (i.e. if it is supposed to rain, bring a raincoat).

## **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 (and by appointment)

Professor Barnes: Mondays & Wednesdays 1:30 -3:30 (and by appointment)

## **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 the block** so we can make arrangements on how you will receive the material for that day.

## Readings

All readings will be 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 & Discussion 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.

On other days, you will post **two discussion questions to Canvas** by 8:00am the day of class, based on the readings from the night before. These discussion questions follow the same format as Block 1--see Canvas for examples of high quality discussion questions.

## Exams & Assignments

You will have two *exams* in Block 2. Both will be closed-book and closed-note exams. More details will be given in class.

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 *one lab* where you will examine paleoclimatological data to reconstruct past climate records. This assignment is meant to reinforce ideas we discuss in class and also challenge you to think creatively and analytically. You are encouraged to work together in pairs on this assignments, but you must submit your own work. In addition, there will be two short writing assignments where you will be asked to relate the science we are learning to the policy realm, details for each will be provided in class.

There will be *one large project*, the completion of the **Three Prong Campaign**. This project will provide you with the opportunity to integrate what you have learned about climate change science with the policymaking process, especially focused on communicating to the mass public and the players of the policymaking game.

**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:

- Exams: 25% (First Exam 10%, Final Exam 15%)
- Vostok Lab: 10%

- Three Prong Campaign & Presentation: 25%
- Short writing assignments: 25%
- 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 assignment 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-. In some cases, late work will not be accepted--we will make clear when this is the case.

**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 us. 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*

- Review of Radiation Balance & C cycle
- Introduction to Paleoclimate
  - *Optional*: Ruddiman pg 84-91 for further review of C cycle
- Attend *First Mondays Lecture*: **Marlon James**, 11:00 am. Morhman Theatre, Armstrong Hall.

### *Day 2*

- **Paleoproxies**
  - FIELD TRIP: Florissant Fossil Beds National Monument. Meet @ 7:45 AM east side of Tutt Science.
  - Ruddiman pg 56-59, 110-118, 138-155 [on Canvas]
- Attend *Sondermann Presidential Symposium, Evening Lecture*: **Jamelle Bouie**, 7:00pm. Morhman Theatre, Armstrong Hall.

### *Day 3*

- **Long Term & Intermediate Climate Change**
  - Ruddiman Chapter 10 [on Canvas]
  - Kump pgs 279-287 [on Canvas]
  - *Optional*: Dessler Ch 7 brief overview
- **QRC Visit** & Vostok Ice Core Lab **meet at 1:30 at the QRC**
  - Vostok Ice Core Lab (due Friday at 4 PM - upload to Canvas)

### *Day 4*

- **Abrupt Climate Change & Short Term Climate Change**
  - Zachos et al. 2008 [on Canvas]
  - Kump Chapter 15 [on Canvas]
  - *C-M*: Kump 2011 *or P-W*: Nash 2008 [on Canvas]
- ENSO & the News Media Writing Assignment (due Friday at 8 AM - upload to Canvas)

### *Day 5*

- **Short Term Climate Change & Ancient Civilizations**
  - Read assigned article
    - C-H: Maya, K-M: Mesa Verde, P-Sh: Akkadian, Sm-W: Saharan
  - ENSO & News Media: Peer review (revision due Saturday, 12 PM - upload to Canvas)

## **Week 2**

### *Day 6*

- In Class Exam [closed book and closed note]

## Day 7

- **The Critical Role of Framing in Politics**
  - Chong, Dennis and James N. Druckman. 2007. "Framing Theory." *Annual Review of Political Science* 10: 103-126. [on Canvas]
  - Druckman, James N. 2004. "Political Preference Formation: Competition, Deliberation, and the (Ir)relevance of Framing Effects." *American Political Science Review* 98 (4): 761-86. [on Canvas]

## Day 8

- **Investigating Ideology & Public Opinion**
  - Ellis, Christopher and James A. Stimson. Excerpts from *Ideology in America*. [on Canvas]
  - Haidt, Jonathan. Excerpts from *The Righteous Mind*. [on Canvas]
  - Haidt, Jonathan and Sam Abrams. 2015. "The Top Ten Reasons American Politics Are So Broken." *The Washington Post*.  
<https://www.washingtonpost.com/news/wonk/wp/2015/01/07/the-top-10-reasons-american-politics-are-worse-than-ever/>
  - Haidt, Jonathan. 2014. "Your Personality Makes Your Politics." *Time Magazine*.  
<http://science.time.com/2014/01/09/your-personality-makes-your-politics/>
    - Take the quiz (link at top of article) & bring results to class

## Day 9

- **The Rise of the Authoritarian Personality & the Role of Polarization**
  - Hetherington, Marc and Weiler. Excerpts from *Authoritarianism and Polarization in the United States*. [on Canvas]
  - Taub, Amanda. 2016. "The Rise of the Authoritarian Personality." Vox.  
<http://www.vox.com/2016/3/1/11127424/trump-authoritarianism>
  - Dunlap, Riley E., Aaron M. McCright, & Jerrod H. Yarosh. 2016. "The Political Divide on Climate Change: Partisan Polarization Widens in the U.S." [on Canvas]

## Day 10

- **Library Visit**, 9:00am - 10:00am. [Location TBA]
- **Linking to the Case of Climate Change: Framing, Ideology, & Religion**
  - Wiest, Raymond, & Clawson. 2015. "Framing, partisan predispositions, and public opinion on climate change." *Global Environmental Change* 31: 187-198. [on Canvas]
  - Wolsko, Christopher, Hector Ariceaga, and Jesse Seiden. 2016. "Red, White, and Blue Enough to be Green: Effects of Moral Framing on Climate Change Attitudes and Conservation Behaviors." *Journal of Experimental Social Psychology* 65: 7-19. [on Canvas]
  - Hayhoe, Katharine. "Climate, Politics, & Religion." *Prairie Fire*.  
<http://www.prairiefirenewspaper.com/2015/06/climate-politics-and-religion>

## **Week 3**

*Day 11*

- **The PMP in Action: Lessons from State Representatives.** Class visit from Pete Lee (Representative from District 18) and Catherine Roupe (Representative from District 17).
  - Readings TBA.

*Day 12*

- **Skype Call with Jenn Marlon**, expert from Yale's Climate Change Communication Program.
  - Readings TBA.

*Day 13*

- **Climate Negotiation Simulation**
  - Read Briefing Materials
  - Prepare w/team for negotiation

*Day 14*

- **Introduction to Final Project:** Three Prong Campaign

*Day 15*

- **Personalities and Communications.** Class visit from expert Chris Olex.

## **Week 4**

*Day 16*

- **Final Project Presentations**

*Day 17*

- **In Class Final Exam**

*Day 18*

- **Class Celebration!**