

# HIST 008: GLOBAL WARMING



## Essential Information:

**Professor:** Dr. [Dagomar Degroot](#).

**Professor's email:** [dd865@georgetown.edu](mailto:dd865@georgetown.edu).

**Course Website:** [WarmingModule.weebly.com](http://WarmingModule.weebly.com)

**Visit our course Canvas page** for office hours.

**Visit “Zoom Conferencing”** to join seminars and office hours.

## Course Description:

The world is warming, and it is warming fast. The culprit: carbon dioxide, methane, and other “greenhouse gases” added to our atmosphere by human industry and agriculture. Average global temperatures are now around one degree Celsius higher than they were midway through the twentieth century.

Around the world, weather is getting “weird.” Tropical cyclones, droughts, torrential rains, and heat waves are all more severe than they used to be. In developed societies, such weather has led to thousands of deaths and billions of dollars in lost economic productivity. In impoverished societies, it has worsened existing social inequalities and driven migration in ways that may have provoked or worsened civil wars. Ever more extreme weather in our warmer future could threaten the survival of rich and poor countries alike.

This module will take you beyond the science of global warming. We will explore how scientists discovered human-caused climate change, how they communicated the threat to the public, and why they have failed to motivate the kind of political action that will save us from catastrophic “climate breakdown.” We will investigate the causes for global warming denial, analyze the social and political consequences of climate change, and evaluate the case for climate “determinism.” You should emerge with a better understanding of what may be the defining issue of our lives.



### **Course Goals:**

Like other courses offered by the Department of History, this course will help you:

1. Gain a deeper appreciation of the nature and practice of history as a discipline, and as the study, based on evidence, of human experiences, interactions, and relationships as they change over time.
2. Learn that history does not consist of a simple succession of self-evident facts, and that evidence-based interpretation and analysis are central to all historical work.

3. Hone reading, writing, and oral communication skills.
4. Develop your capacity to think historically: to situate events and developments in their historical context for the purpose of critical analysis.
5. Expand your ability to engage with complex causal analysis, and to articulate arguments that integrate supporting evidence and analytical commentary.
6. View the world from perspectives other than your own.

This course in particular will also help you:

1. Appreciate the significance of, and deep context for, anthropogenic global warming.
2. Understand complex relationships between climate change and humanity, in the past, present, and future.
3. Broaden your appreciation for diverse scholarly disciplines, and their distinct ways of deciphering the past.

### **Core Pathways:**

This module is part of the Core Pathways Initiative. As a part of the initiative, the course follows a 7.5-week A/B schedule that pairs with another course in the latter half of the semester. By enrolling in the module, you are also part of a larger learning community of faculty members, students, and other campus/community partners to engage with the complex factors and challenges presented by climate change.

The Core Pathway Initiative seeks to integrate differing perspectives and disciplines in a conversation around the many issues related to climate change. To foster that integration, and as part your participation in the initiative, over the course of each semester there will be four required integrative moments that bring together the entire Pathway (students and faculty) to bring to bear collective experiences on facets of the broader thematic topic of climate change.

The calendar on this syllabus (below) identifies the Integrative Days for the semester. Please keep these dates in mind. For more information on the Pathway or questions about the initiative, visit [www.corepathways.georgetown.edu](http://www.corepathways.georgetown.edu) or contact [corepathways@georgetown.edu](mailto:corepathways@georgetown.edu).

# Core Pathways

## Climate Change Spring 2021

Kickoff Dinner	First Day of Classes	Integrative Day (MANDATORY)
Last Day of Classes	No Classes	

WEEK	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17		
Tuesday Session	1/26	2/2	2/9	2/16	2/23	3/2	3/9	3/16	3/23	3/30	4/6	4/13	4/20	4/27	5/4	5/11	TBD		
Thursday Session	1/28	2/4	2/11	2/18	2/25	3/4	3/11	3/18	3/25	4/1	4/8	4/15	4/22	4/29	5/6				
	Module A Begins		Integrative Day		Module A Ends			Spring Break		Integrative Day		Module B Last Class		Study Days		Final Exercise			
	Fall Kickoff Salon 530--645PM																		

### Breakdown:

Quizzes:	15%
Oil Industry Essay:	25%
“Tipping Points” Article:	30%
Final Test:	30%

### Evaluation:

You will submit all assignments and complete all quizzes on Canvas. You will be able to access additional assignment resources on our course homepage.

#### Quizzes:

Through Canvas, you will complete three short quizzes, one every two weeks or so, that will test you on our readings and recorded class discussions. The quizzes will consist primarily of multiple choice and short answer questions, and they should take you around 15-30 minutes to complete (although I will give you five days to finish them). Each quiz will be worth 5% of your final grade.

#### Oil Industry Essay:

Write a five-page essay that analyzes **at least three** of the oil industry primary source documents accessible through our course website. Create a thesis based on these documents that answers the following questions:

1. Since when have oil industry executives known that their industry was contributing to anthropogenic climate change?
2. When and how did they respond to this knowledge?

You may use **at most** four secondary, peer-reviewed sources to help you make your argument.

### “Tipping Points” Article:

Visit [ClimateTippingPoints.com](https://www.climate tipping points.com). Use the tools listed on the site to write a short (roughly 750-word) article that explains the projected consequences of global warming in an American county over the coming century. Your essay will tell our readers: 1) How climate change will affect a local environment; 2) How we know; and 3) How the local environmental consequences of climate change may influence peoples’ lives.

You can bring in additional information from newspapers or scholarly articles. You should also include maps or graphs that visualize the impact of climate change on a particular place, so long as you are able to explain how they were made. With your consent, I will edit your article and publish it on our website. You may remain anonymous if you choose.

I have written a template on Washington, DC that should give you an idea of what I am looking for. We will also discuss how to write the article in class. Please submit your papers through Canvas, with maps or graphs embedded within the document.

### Final Test:

This short test consists of six short essay questions, of which you must answer three. I will give you many more details during our Zoom sessions.

### **Formatting your Essays:**

Make a title page! Your title page should have your assignment title in large, centered font. Your name, your class name, my name, and the date should be in a smaller font at the bottom right of your title page. **Note that your title page is not included in your page count.**

Your papers should be written in size 12, Times New Roman font. They should be double-spaced. You should use standard margins (one inch on all sides of the document). Number your pages (at the top right).

Use formal academic writing (no contractions or colloquialisms).

Cite all sources using Chicago Style formatting, which means that you need footnotes **and** a bibliography (**note that the bibliography does not add to your page count**). Click [here](#) to find out how you do this. You should always cite at the end of a quotation. Otherwise, include all citations in a footnote at the end of a paragraph. You do not need to cite every sentence. Your footnotes should be numbered sequentially and they should be single-spaced.

### **Grading Criteria:**

*Each of these criteria will be worth approximately a third of your grade:*

Clarity:

Are you using words that appropriately and formally express your meaning? Are your points sourced correctly? Do your sentences precisely express your meaning, and are they grammatically correct? Is there a clear thesis that presents an argument and outlines how that argument will be defended? Is there a coherent organization that culminates in a conclusion that references the thesis?

Research:

Are your secondary sources serious works of scholarship, and are they relevant to your argument? Do your primary sources illuminate the issue you are investigating, and to what extent? Are those primary sources relevant to your argument, and do you present them in the context of your secondary sources?

Ideas:

How creative and nuanced are your arguments? Are you merely repeating the claims of other scholars, or are you evaluating them in the context of other arguments and concepts? To what extent can you develop fresh ideas?

**Value of Letter Grades:**

A = 95-100

A- = 90-94

B+ = 87-89

B = 83-86

B- = 80-82

C+ = 77-79

C = 73-76

C- = 70-72

ETC.

**Meaning of Letter Grades:**

*Courtesy of Professors Amy Leonard, Howard Spendelow, and Alan Karras:*

A Outstanding. We've looked and looked for errors and found perhaps a few lapses in grammar, but they are insignificant because you raised an interesting and important argument. You followed all the directions of the assignment and wrote in a clear and fluid manner. You cited your sources and garnered good evidence for your argument. Usually no more than 10% of students receive an A as a final grade.

**A-** Excellent. You show a superb mastery of the materials. Your paper has a clear argument but something is just a little bit off, and consistently so. You need some tightening of argumentation, for example, or you should have pushed your data that extra step. Or, there are some writing flaws in your paper or, your organization might not be perfect and obscures your otherwise fine argument. Nevertheless, an A- is a very good grade.

**B+** Very good. You've clearly learned the material and there are no major errors. But your answer is lacking in originality, clarity, or sparkle. In some cases, this grade can be for a brilliant essay with significant and frequent writing flaws.

**B** Good. You have a solid argument but it is not fully developed. Your argument is plausible but you need more supporting evidence to make a convincing case. Or, you've given the right evidence but haven't articulated the argument. Or in an exam, for example, the chronology is confused or in a paper, there are problems with annotation and the use of sources. These are not fatal.

**B-** Pretty good. Your answer is solid, but incomplete. You end the paper or essay where you should begin it. Your essay has the right elements but they are in the wrong order. Your argument is likely missing something and might also have some problems in expression. I might have to strain to figure out what you want to say but once I do, it makes sense. This strain suggests that you could have corrected the problem with more attention to your argument.

**C+** Fair. It's not obvious that you've done the readings and listened to the lectures. What you say might be true, but it is unclear since your argument has many writing problems and a reader has to work overtime to figure out what you mean. Your argument, though plausible, is not especially deep or insightful. The paper has errors and an imbalance between generalizations and evidence. There are problems with annotation that suggests attention has not been paid to the detail and mechanics of writing a paper.

**C** Acceptable, but...

- You might have grasped the basic idea, but have missed the main focal points of the questions and/or;
- There are omissions or disturbing errors in fact or your logic is flawed and/or;
- Although basically correct, your argument has no supporting evidence and/or;
- Your writing is obscuring your argument, your notes are inadequate, and your credibility is not so good either.

**C-** Still acceptable, but here are a greater number of problems and/or a fewer number of good points than needed to earn you a "C." In other words, more of the C problems (mentioned above) are true in a C- paper.

**D+** Barely acceptable. There are serious errors, omissions, or inconsistencies here, but the light of understanding somehow, occasionally, flickers through.

**D** Just barely acceptable. Your answer is so vague that it's hard to find something good to say. Your writing problems also are pretty significant.

**D-** Passing. Be grateful your instructors are nice people with a great deal of patience. Perhaps you need to spend more time on your answers/papers next time! Asking for help might also be a good idea.

**F** Don't think so. There's not even enough here about which to be patient. At least you will get some credit for your effort, which is better than the zero you would have gotten for leaving the answer blank.

## **Important Notes:**

### Course Resources:

There are three resources you should familiarize yourself with in this course. The first is this syllabus. Before asking me a question about the course, please consult the syllabus.

The second resource is our Canvas page. On the page, you'll be able to submit your assignments and download any readings you can't access through our library resources. You'll also be able to complete quizzes and view our Zoom sessions.

The third resource in our course website (you can find a link on the first page of this syllabus). The website will host a regularly updated version of the syllabus, alongside resources for completing your major essay.

### Zoom House Rules:

Please not show up late to class. It detracts from your learning and disturbs your classmates. Ask questions by "raising your hand," or pose them using our chat function.

### Submitting Assignments:

Assignments are due **at midnight on the due date**. Late assignments will receive a 5%/day penalty. I will not grade assignments that are more than one week late, unless you have negotiated an extension with me (see below).

### Extensions:

You may ask me for a short extension *before an assignment is due*. I will likely grant your request if you A) give me a convincing explanation for why you're late; B) give me a roadmap that outlines how you will complete your assignment; and C) propose a new due date.

I will only grant requests for an extension on or after the assignment due date in exceptional circumstances (a death in the family, for example, or a very serious illness). Be sure to contact your deans in case of absences, difficulties meeting due dates, and other problems.

#### Missing Assignments:

If you fail to hand in an assignment, you will receive a zero for that assignment. You will not necessarily receive a message from me that asks about your missing assignment. I expect you to handle your obligations yourself.

#### Attending Class and Participating:

This is an asynchronous course, which means that I do not require you to attend our Zoom sessions. I will record each session and publish them for later viewing on our Canvas page. You will also not receive a grade for participating in class, because of course such a grade would undermine the asynchronous delivery of the course.

However, I ask that you make a good faith effort to attend and participate. This course will be immeasurably enriched if enough students engage with our Zoom sessions. It will benefit everyone – including those who can't attend – if those who can attend show up, ask questions, and offer answers.

#### Academic Honesty:

Plagiarism is not just about copying someone else's writing. *Any time* you present ideas without correctly citing them, you are committing plagiarism. This is the most serious intellectual offense you can commit in academia, so your professors – me included – take it very seriously.

It is **your** responsibility to familiarize yourself with the [Georgetown University Undergraduate Honor System](#). It is your professor's duty to refer academic misconduct – including plagiarism – to the Georgetown Honor Council. If the Council decides that you have plagiarized on an assignment, you will fail that assignment – and you may fail the course.

#### Beyond the Course:

I am committed to supporting survivors of sexual misconduct, which includes relationship violence, sexual harassment and sexual assault. However, university policy requires faculty to report any disclosures about sexual misconduct to the Georgetown Title IX Coordinator, who directs the University's response to sexual misconduct.

Georgetown has a number of fully confidential professionals who provide support and assistance to survivors of sexual assault and other forms of sexual misconduct. To connect with those professionals – including to report an incident – and to review our university policies, you can visit: <https://sexualassault.georgetown.edu>.

#### **Schedule:**

- *This schedule may be changed by your professor. You will usually have at least one week's notice.*
- *Please complete all weekly readings by Tuesday. All quizzes will be posted on Thursday, for completion by Tuesday.*

### **Week 1: Introductions**

March 16

March 18

#### Readings:

1. "Chapter 38: From Climatology to Climate Science in the Twentieth Century," "Chapter 25: Climate from 1800 to 1970 in North America and Europe," and "Chapter 26: Global Warming (1970-Present)", in Sam White, Christian Pfister, and Franz Mauelshagen (editors), *The Palgrave Handbook of Climate History*. London: Palgrave Macmillan, 2018. Available through our library website.
2. "Is Climate Change the Most Important Challenge of our Times?", in Mike Hulme (ed.), *Contemporary Climate Change Debates: A Student Primer*. London: Routledge, 2019. Available through our library website.

### **Week 2: The Anthropocene and the Great Acceleration**

March 23

March 25: NO CLASS. FIRST QUIZ.

#### Readings:

1. Steffen, Will et al., "The Anthropocene: conceptual and historical perspectives." *Philosophical Transactions of the Royal Society of London A: Mathematical, Physical and Engineering Sciences* 369:1938 (2011): 842-867.
2. Lewis, Simon L., and Mark A. Maslin, "Defining the Anthropocene." *Nature* 519:7542 (2015): 171-180.
3. Waters, Colin N. et al. "The Anthropocene is functionally and stratigraphically distinct from the Holocene." *Science* 351:6269 (2016).
4. McNeill, J.R. and Peter Engelke, *The Great Acceleration: An Environmental History of the Anthropocene since 1945*. Cambridge, MA: Harvard University Press, 2014. "Introduction" and "Chapter 2: Climate and Biological Diversity" (that's pages 1-6 and 63-102). Available through our library website.

### **Week 3: Agriculture and the Countryside**

April 6

April 8

Readings:

1. Ingram, B. Lynn and Frances Malamud-Roam. *The West Without Water: What past Floods, Droughts, and Other Climatic Clues Tell Us about Tomorrow*. Berkeley: University of California Press, 2015. “Chapter 13: Future Climate Change and the American West” and “Chapter 2: The 1861–1862 Floods: Lessons Lost” (pages 190-203 and 27-40). Available through our library website.
2. Worster, Donald. *Dust Bowl: The Southern Plains in the 1930s*. Oxford: Oxford University Press, 1979, 2004. “Introduction,” “Chapter 1: The Black Blizzards,” “Chapter 5: Sodbusting” (pages 3-8, 10-25, and 80-98). Find it here: <https://www.fulcrum.org/concern/monographs/41687h57c>
3. Glotter, Michael, and Joshua Elliott. “Simulating US agriculture in a modern Dust Bowl drought.” *Nature Plants* 3:1 (2016): 1-6.

**Week 4: Migration and Violence**

April 13: SECOND QUIZ

April 15

Readings:

1. Brosig, Max et al. “Implications of Climate Change for the U.S. Army.” [https://climateandsecurity.files.wordpress.com/2019/07/implications-of-climate-change-for-us-army\\_army-war-college\\_2019.pdf](https://climateandsecurity.files.wordpress.com/2019/07/implications-of-climate-change-for-us-army_army-war-college_2019.pdf).
2. Kelley, Colin P. et al. “Climate change in the Fertile Crescent and implications of the recent Syrian drought.” *Proceedings of the national Academy of Sciences* 112:11 (2015): 3241-3246.
3. Werrell, Caitlin E., Francesco Femia, and Troy Sternberg. “Did we see it coming?: State fragility, climate vulnerability, and the uprisings in Syria and Egypt.” *SAIS review of international affairs* 35:1 (2015): 29-46.
4. Selby, Jan, Omar S. Dahi, Christiane Fröhlich, and Mike Hulme, “Climate change and the Syrian civil war revisited.” *Political Geography* 60 (2017): 232-244.
5. Ash, Konstantin and Nick Obradovich, “Climatic Stress, Internal Migration, and Syrian Civil War Onset.” *Journal of Conflict Resolution* 64:1 (2020), 3-31.

**Week 5: Urban Adaptations**

April 20:

April 22: EXXON PAPERS ESSAY DUE. THIRD QUIZ

Readings:

1. Cohen, Joel E. “Cities and Climate Change: A Review Essay.” *Population and Development Review* 45:2 (2019): 425-435.

2. Fan, Qin, and Meri Davlasheridze. "Economic Impacts Of Migration And Brain Drain After Major Catastrophe: The Case Of Hurricane Katrina." *Climate Change Economics (CCE)* 10:1 (2019): 1-21.
3. Molinaroli, Emanuela, Stefano Guerzoni, and Daniel Suman. "Do the Adaptations of Venice and Miami to Sea Level Rise Offer Lessons for Other Vulnerable Coastal Cities?". *Environmental management* 64:4 (2019): 391-415.
4. Liao, Kuei-Hsien. "Living with Floods: Ecological Wisdom in the Vietnamese Mekong Delta." In *Ecological Wisdom*, pages 195-215. Springer, 2019.

## **Week 6: Communication and Denial**

April 27

April 29

In-class movie: *Merchants of Doubt*.

### Readings:

1. Cook, John, Naomi Oreskes, et al. "Consensus on consensus: a synthesis of consensus estimates on human-caused global warming." *Environmental Research Letters* 11:4 (2016).
2. "Is the concept of 'tipping point' helpful for describing and communicating possible climate futures?", "Should individual extreme weather events be attributed to human agency?", "Is emphasizing consensus in climate science helpful for policymaking?" and "Are social media making constructive climate policymaking harder?", in Mike Hulme (ed.), *Contemporary Climate Change Debates: A Student Primer*. Available through our library website.

## **Week 7: Forecasting the Future; Finding Solutions**

May 4:

May 6: FINAL TEST

### Readings:

1. Wallace-Wells, David. "After Alarmism." *New York Magazine*, 2021. Available at: <https://nymag.com/intelligencer/article/climate-change-after-pandemic.html>.
2. Naam, Ramez. "How to decarbonize America - and the world." TechCrunch. Available at: <https://techcrunch.com/2019/02/15/how-to-decarbonize-america-and-the-world>.
3. "Is it necessary to research solar climate engineering as a possible backstop technology?", "Do rich people rather than rich countries bear the greatest responsibility for climate change?," and "Does the 'Chinese model' of environmental governance demonstrate to the world how to govern the climate?," in Mike Hulme (ed.), *Contemporary Climate Change Debates: A Student Primer*. Available through our library website.

4. Adger, W. Neil et al. "Cultural dimensions of climate change impacts and adaptation."  
*Nature Climate Change* 3:2 (2013): 112-117.

May 13: TIPPING POINTS ARTICLE DUE