

## Climate and Society (ENVI 150) Macalester College – Fall 2023

**Class meetings:** MWF 9.40 – 10.40 am, OLRI 243

**Instructor:** Louisa Bradtmiller      lbradtmi@macalester.edu; Olin-Rice 249D  
Office hours: M 1.30 – 2.30pm, Th. 10.30 – 11.30am, and  
by appointment via email

*"Mankind survived the last ice age. We're certainly capable of surviving this one. It all depends on whether or not we can learn from our mistakes."* Dennis Quaid in "The Day After Tomorrow"

### Course description

Seasonal and annual patterns of temperature and precipitation influence the development, success and collapse of civilizations. Regional climate determines numerous things about how humans adapt to survival there, including the type of shelter needed, the length of the growing season, and the availability/scarcity of freshwater. Using a combination of scientific and historical records, this course will provide a brief introduction to the climate system and will then focus on how changes in climate affected several societies throughout history. In the latter part of the course we will discuss observed global warming in the modern world, what the potential benefits and consequences of it may be, and whether or not there are lessons to be learned from our ancestors.

### Course organization

Class periods will be a mixture of lecture, discussion and group exercises. The latter two will count towards the course participation grade (see below). The course will start off with a brief introduction to climate science followed by the application of those principles to several examples of the impact of climate on society. These examples span approximately the last 2000 years, and will also include projections for the near future as we conclude the course with a discussion of the likely impacts of climate change on various modern societies.

### Goals for students

By the end of this course, students should be able to

- Explain the basic principles of climate science to a non-scientist
- Assess the vulnerabilities of a given society to potential (or past) changes in climate
- Communicate clearly and effectively through written and oral presentations of ideas

### Course texts

Archer, David. The Long Thaw: How humans are changing the next 100,000 years of Earth's climate. Princeton, NJ: Princeton University Press, 2009.

Archer, David. Global Warming: Understanding the forecast, 2nd ed. Hoboken, NJ: Wiley, 2011.

Diamond, Jared M. Collapse: How societies choose to fail or succeed. New York, NY: Penguin Group, 2005.

## *What to expect in class*

### **Moodle**

The class Moodle page should be your first stop for information about readings, assignments, and what to expect in class. The page is color-coded: readings (green, or links) should be completed before class on the day of the entry, and assignments (purple) are due that day. This will require some looking ahead on your part.

### **Attendance**

Attendance in lecture is at your discretion, although students who attend regularly are likely to receive higher grades than those who do not. The participation portion of your grade will be based on your contributions to classroom discussions/activities.

### **Homework**

There will be 2 problem sets early in the course, designed to give you practice with the material and demonstrate your understanding of course content. You will have approximately a week to complete each one from the time it is assigned. I encourage you to work in pairs/groups on these assignments. However, each student must turn in their own assignment, written in their own words. This means that you may discuss the answers together, but must write them out yourselves. See me with any questions about what this means- copying will not be tolerated.

### **Quizzes**

There will be 12 reading responses throughout the semester, graded on a four point scale (0-3). The scale corresponds to both the level of effort and thoroughness of your response, as well as finding a 'correct' answer. Responses will be administered on Moodle, and are due by 9am the day of the assigned reading (you can always do them earlier!). The two lowest scores will be dropped so that the highest 10 scores will count toward the final grade.

### **Essay and Policy memo**

There will be two short (4 page double-spaced) writing assignments due during the semester. These are short pieces, which makes it all the more crucial to write in a concise, organized way. Before each assignment is due you will be asked to provide a draft for in-class peer review. See Moodle for writing prompts, due dates for all drafts, and grading criteria.

### **Final project**

The final project for this course will be a chance for students to examine interactions between climate and a modern society of their choosing. The project will take the form of a *New York Times Magazine*-style article and accompanying bibliography. There will be a more detailed project description available later in the semester. Projects will be presented during the final two days of class, and are due **Wednesday, Dec. 13th at the beginning of class, in hard copy and .docx format on Moodle.**

## Grading

Your final grade for this course will be determined by the number of points you accumulate throughout the semester.

Point distribution	
Participation	40
Homework (2 @ 25 points each)	50
Reading responses (10 @ 10 points each)	100
Essays (2 @ 100 points each)	200
Final project	160
TOTAL POSSIBLE	550

## Other important information

### Diversity

It is my intent that students from diverse backgrounds and perspectives be well served by this course, that students' learning needs are addressed both in and out of class, and that the diversity that students bring to this class be viewed as a resource, strength and benefit. I am committed to presenting materials and activities that are respectful of diversity: gender, sexuality, disability, age, socioeconomic status, ethnicity, race, and culture. I appreciate your feedback on this and every aspect of our course, and your suggestions for ways to improve the effectiveness of the course for you personally or for other students or student groups.

### Health and wellbeing

I encourage you to be intentional about maintaining your physical and mental health during this and every semester at Macalester. Taking care of yourself in these ways will help you to be healthier, happier, and better able to focus on your academic work. It will also keep us safer as a community. Be aware of people, situations and circumstances that help you to feel focused and engaged, as well as those that cause you stress; try to maximize the former, and eliminate the latter as much as possible. While every person is different, for most of us regular and adequate sleep, healthy meals, regular exercise, and connecting with others are all ways to foster wellness. If you find that you are having trouble maintaining your health and wellbeing, please don't hesitate to set up a time to talk with me, or with one of the many individuals or programs in the Hamre Center for Health and Wellness.

COVID has been making another appearance lately, and it is likely that at some point during the semester, someone in our classroom community will be exposed to, if not infected by this virus. In the absence of other information from the college, I will follow CDC guidance on any COVID-related absences. *If you are infected*, please follow [these guidelines](#), and contact me about setting up ways to participate in class remotely while you isolate, as long as you feel well enough to do so. If you have a known exposure, please follow [these guidelines](#), which generally allow in-person attendance as long as you are asymptomatic.

## Accommodations

Your experience in this class is important to me, and I am committed to creating an inclusive and accessible learning environment. If you have already established accommodations with the Disability Services office, please communicate your approved accommodations to me as soon as possible so that we can discuss your needs in this course. If you have not yet established accommodations, but have a temporary health condition or permanent disability that requires accommodations (this includes but is not limited to: mental health, attention-related, learning, vision, hearing, physical or health impacts), please contact Disability Services to make an appointment: [disabilityservices@macalester.edu](mailto:disabilityservices@macalester.edu) or 651-696-6748. Disability Services offers resources and coordinates reasonable accommodations for students with disabilities and/or temporary health conditions. Reasonable accommodations are established through an interactive process between you, your instructor(s), and the Disability Services staff.

## Academic integrity and Artificial Intelligence (AI<sup>2</sup>)

I take all instances of cheating and plagiarism very seriously. It is YOUR RESPONSIBILITY to become familiar with [Macalester's policies](#) on what constitutes each of these offenses and to behave accordingly. Instances of suspected academic dishonesty will be handled as outlined in college policies.

In this course, you may use AI tools (such as Bard or ChatGPT) to help you generate ideas and to brainstorm. However, you should note that the material generated by these tools may be inaccurate, incomplete, or otherwise problematic. Beware that overuse of AI may stifle your own independent thinking and creativity, and use any tools (for generating text, code, video, audio, images, or translation) wisely and carefully.

You may not submit any work generated by an AI program as your own. If you include material—including both *ideas* and *language*—generated by an AI program, it should be cited like any other reference material, both in this course and at Macalester College in general. If you have any questions, please feel free to contact me.

## Recording policy

In the hopefully unlikely event that we need to hold synchronous class meetings on zoom during this semester, I plan to record our synchronous class sessions in a manner consistent with [Macalester's classroom recording policy](#). I will share these recordings on Moodle as needed. If you download any class recordings, you must store them in a password-protected file or on a password-protected site. Please note that the recording policy clearly states that ***students may not share, replicate, or publish any class recording, in whole or in part, or use any of the recordings for any purpose besides knowing what happened during the class period, without my written approval.***