GEOG 3210/5210; ENVST 3210: Global Climate Change

General Education SF
Fall 2024

Professor: Andrea Brunelle, andrea.brunelle@geog.utah.edu

Office (Student) Hours: Tues 1:45-2:45 (live, GC 4847), Monday 9-10 (zoom), and by appointment
Join Zoom Meeting
https://utah.zoom.us/j/98606008256
Meeting ID: 986 0600 8256
Passcode: climate

TA: TBD

Prerequisite: Basic knowledge about Earth Systems and a keen interest in learning more

Required Texts: Earth's Climate: Past and Future, William Ruddiman **3rd Edition** (you must have the 3rd edition!)
** the text is embedded in the class fees. If you do NOT want that you need to opt out for the refund and purchase your book another way.*

Course Web Page: https://utah.instructure.com

Grading:		
	Weekly quizzes	25%
	Reading and Viewing Guides, other assignments	20%
	Current Topics Discussion post and comments	10%
	3 course objective assessments (15% each)	45%

- **Students enrolled in the 5210 section will be held to a higher standard on all writing assignments and will have additional work for each objective assessment.**
- **Be sure to read the rubric and assignments carefully!**
- **YOU are responsible for knowing which section you signed up for.**
- **All sections will be under one Canvas course, listed as GEOG 3210.**

Course Description: Climate change has been occurring throughout Earth's history. Inherent processes such as the planet's tectonic activity, the Earth's relationship to the Sun and other extraterrestrial bodies, as well as atmospheric and hydrological processes have dictated an ever-changing climate pattern over a variety of time scales. Speciation, adaptation, migration, and extinction of living organisms have frequently resulted from climate changes, but the relatively recent evolution and expansion of humans around the globe have cast climate change in a new light. Humans are altering the atmosphere in an unprecedented manner and stand to suffer greatly from even relatively minor alterations in climate. Yet, the complexity of the issue, the inertia of industry and energy use, and the reluctance of policymakers to risk economic backlash have created a politically charged atmosphere surrounding the study of global climate change. In this class, students will be introduced to the methods and review the evidence used to study climate changes of the past and will examine the data being used to forecast climate change into the future.

Learning Objectives:

1. Be able to explain the long-term role of CO_2 in regulating the Earth's climate.
2. Be able to talk about other things besides CO_2 that affect climate and give examples from the past.
3. Be able to describe the current concern about climate change using the past as a foundation.

4. Feel comfortable explaining "the three facts" about climate change to others.

We are doing written course objective assessments (did we, and how did we, meet each learning objective) in lieu of traditional exams. Objective 1 & 2 assessments will be during the semester and serve as mid-terms, and objective 3 will come at the end of the semester and serve as the final exam.

Class is organized by modules and chapters/content. Everything you need for a given week is in that module. Assignments given in a weekly module are due the following Monday before midnight. The course is designed, and deadlines are set, for you to complete one module a week. All powerpoints are available as powerpoint shows for each module. Note that these may not exactly match the recorded lecture slide show.

Current Topics on Global Change- Everyone must find a current topic related to climate change and post a short video (no more than 3 minutes) explaining it on the Discussion Board. The source must be cited (e.g., NPR, All Things Considered, 1/11/21) so we know where you got your info, and others do not duplicate it. You also need to provide a thoughtful reply to at least 3 postings. You will be graded on the quality of your post and your responses to others.

Class Policies

Quizzes - **There are NO make-up quizzes**; however, you will be given bonus points ("freebie points") equivalent to about 2 quizzes, which means you can miss 2 with no penalty. If you don't miss any quizzes you still get the points and they will be extra credit on your grade. Freebie quizzes are meant to cover all manner of life issues. You will have access to the material well in advance of the due dates so try to stay ahead so if something comes up you aren't in a bind!

Late work - All assignments will be due as scheduled, but to allow for issues that come up, quizzes and assignments will be accepted with a 10% penalty PER DAY. No late work will be accepted after a week, no exceptions. Don't ask me and make me tell you no.

Technical issues – details on how to address technical issues are available on the on-line syllabus.

Plagiarism –Any submission that has a Turnitin score 20% or higher **will not be graded without a statement explaining that high score**. Ungraded assignments will be assigned a zero and will not be eligible for resubmission past the due date. If you receive a zero more than once, we'll begin academic misconduct proceedings.

Grading – The university grading scale is below. We reserve the right to round your grade up if you show exceptional engagement in the class and/or you show improvement in your work over the course of the semester.

A	100%–94%	A-	93.9%–90%		
B+	89.9%–87%	B	86.9%–84%	B-	83.9%–80%
C+	79.9%–77%	C	76.9–74%	C-	73.9%–70%
D+	69.9%–67%	D	66.9%–64%	D-	63.9%–60%
E	59.9%–0%				

Office (Student) Hours - These are windows of time where the instructor and TA are available to help you! We will be sitting in our office or on the zoom link waiting for you to ask questions. These hours are often

underused- come see us! Note that on a zoom if we are already talking with someone you will go to the waiting room and we will let you in as soon as we finish with whoever was before you!

Essential Learning Outcomes: ELO's are skills that should be gained in general education coursework that prepare students to be "effective 21st-century global citizens" (U of U General Education Guidelines). Through the discussions over the course of the semester and with assignments described above, we will specifically work on several of these outcomes, and they will be incorporated and assessed as follows:

- *Critical Thinking and Reasoning*- Critical thinking and reasoning skills will be developed and employed on a daily basis through the presentation, discussion, and consideration of scientific data on climate change. These skills will be assessed during the in-class and online quizzes and on objective assessments.
- *Written Communication* – Student written communication skills will be assessed, and constructive feedback provided during the course objective analyses and their current topics postings.

***Incompletes will only be given at my discretion and only if the student is passing at the time.**
***You are responsible for all information presented in the lecture and over the course website (Canvas).**

Additional readings may also be assigned as appropriate for the discussion topic

The University of Utah seeks to provide equal access to its programs, services and activities for people with disabilities. If you will need accommodations in the class, reasonable prior notice needs to be given to the Center for Disability Services, 162 Olpin Union Building, 581-5020 (V/TDD). CDS will work with you and I to make arrangements for accommodations. All written information in this course can be made available in alternative format with prior notification to the Center for Disability Services.

"Some of the writings, lectures, films, or presentations in this course may include material that conflicts with the core beliefs of some students. Please review the syllabus carefully to see if the course is one that you are committed to taking. If you have a concern, please discuss it with me at your earliest convenience." - *Per Accommodations Policy, Office of Academic Affairs*

University of Utah Academic Honesty Statement
It is expected that students adhere to University of Utah policies regarding academic honesty, including but not limited to refraining from cheating, plagiarizing, misrepresenting one's work, and/or inappropriately collaborating. This includes the use of generative artificial intelligence (AI) tools without citation, documentation, or authorization. Students are expected to adhere to the prescribed professional and ethical standards of the profession/discipline for which they are preparing. Any student who engages in academic dishonesty or who violates the professional and ethical standards for their profession/discipline may be subject to academic sanctions as per the University of Utah's Student Code: https://regulations.utah.edu/academics/6-410.php

Geography Department Academic Misconduct Policy
Academic misconduct will not be tolerated. Penalties may include failure of an assignment, the entire course, and/or the filing of formal charges with appropriate university authorities. Academic misconduct includes, but is not limited to, cheating, misrepresenting one's work, and plagiarism:

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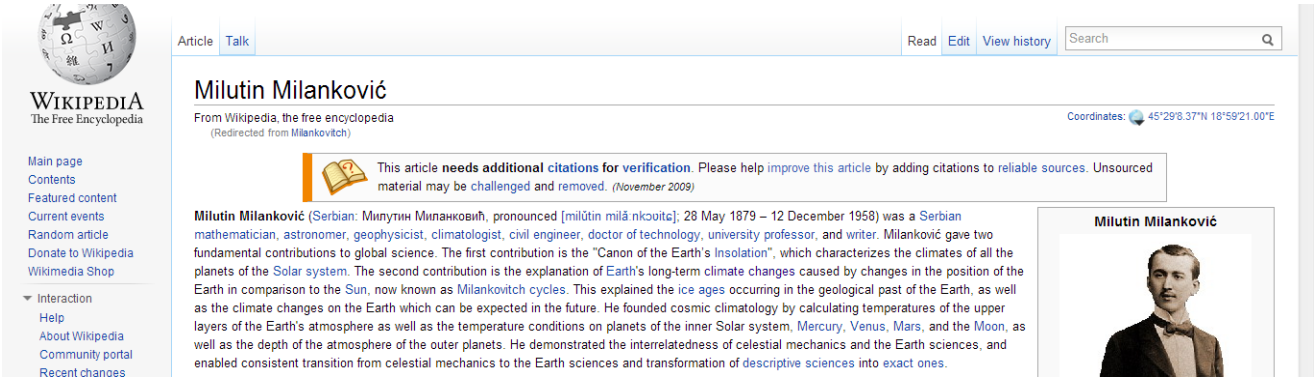
• Cheating involves the unauthorized possession or use of information in an academic exercise, including unauthorized communication with another person during an exercise such as an examination.
• Misrepresenting one's work includes, but is not limited to, representing material prepared by another as one's own work or submitting the same work in more than one course without prior permission of all instructors.
• Plagiarism means the intentional unacknowledged use or incorporation of any other person's work in one's own work offered for academic consideration or public presentation.

- When you gather information from any source (internet, book, newspaper, journal article, etc), you need to paraphrase. This means changing the words from the original source into your own. Even though the words are yours, the content is still from somewhere else, so it still needs a citation.
- COPYING FROM MY SLIDES VERBATIM IS PLAGIARISM. THEY ALSO NEED TO BE PARAPHRASED.
- All writing assignments go through a plagiarism checker called "Turn It In." You have access to your score when you submit. LOOK AT IT.
- Remember, any submission that has a Turnitin score 20% or higher **will not be graded without a statement explaining that high score**. Ungraded assignments will be assigned a zero and will not be eligible for resubmission past the due date. If you receive a zero more than once, we'll begin academic misconduct proceedings. Again, you will have access to this score when you submit. Give yourself enough time to solve any similarity issues.
- In-text referencing is when you refer to the article or source of the information you are presenting. The format should be: Blah blah blah blah (Brunelle 2023). Then you will have the full citation at the end like this:
  Brunelle, A. 2023. A Plea to Not Plagiarize. Journal of Important Stuff, Volume 1, pages 1-6.
- If there are two authors the in text would be (Brunelle and Runburg 2021) with both authors listed in the citation at the end. If there are 2+ authors it would be (Brunelle et al. 2020).
- The way I paraphrase is I'll read something and make notes on what I read. Then I put the original source away and explain it using my words and notes.
- Technically, you can take text directly from a source if you put the material in quotation marks, cite the source and the page number from the excerpt. However, **I don't want to see any direct quotations** in any of your work. **I only want paraphrasing with appropriate citations**.
- Here is a good and bad example of paraphrasing from the Wikipedia entry on Milutin Milankovitch.



BAD:
Milutin Milankovic was a Serbian mathematician who gave two fundamental contributions to global science. These include the "Canon of the Earth's Insolation" which characterizes the climates of all the planets in the solar system. The other contribution is the explanation of the Earth's long-term climate changes caused by the position of the Earth and Sun.

GOOD:
Milutin Milankovitch made many contributions to our understanding of the Earth's climate. He was widely trained in the Earth, Geological and Astronomical sciences but is best known as a Serbian mathematician and astronomer. His most important contribution was his explanation for the ice ages, which is based on changes in the Earth's relationship with the Sun, known as Milankovitch Cycles (Wikipedia, 2012).

References Cited

Wikipedia. Accessed Dec. 30, 2012. Milutin Milanković, http://en.wikipedia.org/wiki/Milankovitch