

Fall 2020

## **Climate Change: Social Science Perspectives**

Geography and Environmental Studies

GEOG 2500/ENST 2500

Vladimir Díaz-Cuellar

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### **Meeting day and time**

Tuesdays, 2:30-5:30 p.m.

### **Office hours**

Thursdays, 4-5 pm, online, by appointment.

### **Teaching Assistants**

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Name: Patrick Jardine

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## **COURSE DESCRIPTION**

The course provides a general exploration of the possible socio-economic causes of climate change and the current global ecological crisis. The first sessions will present the basics of knowledge about climate change and the anthropogenic impacts on the Earth systems, while the subsequent sessions will trace the socio-economic causes and their historical origins, summarize the theoretical features of the modern economic system, and discuss the possible alternative pathways forward. The lectures will provide a panoramic overview of these topics, to be complemented by the mandatory readings. The course aims to provide the basic tools to discuss these topics from a social science perspective, but also as citizens in our community, since they are arguably the most important issues of our century.

## **Learning Outcomes**

By the end of this course, students will be able to:

- Explain the basics of climate change and the global ecological crisis.
- Identify the main historical and socio-economic causes of the crisis.
- Analyze the main theoretical features of our contemporary economic system.
- Reflect critically on the different technological, economic and political pathways to overcome the crisis.
- Participate as an informed citizen in community discussions about these topics.

## **Texts**

All readings in the course calendar will be available on the course website at cuLearn. Please note that assigned texts may be adjusted slightly over the course of the term depending on how our class conversations develop. No minor changes to readings will be made within less than a week of the class session in question.

## COURSE CALENDAR

	Topic and required readings	Exams, tutorials and assignments
Week 1 September 15	<p><b>Introduction</b></p> <p>Naomi Klein (2015) <i>This Changes Everything: Capitalism vs. the Climate</i>, Vintage Canada. Introduction, pp. 1-25.</p>	
Week 2 Asynchronous session	<p><b>Climate change</b></p> <p>Guest lecture by professor Elyn Humphreys (Geography and Environmental Studies).</p> <p>Intergovernmental Panel on Climate Change (2018) <i>Global warming of 1.5°C. Summary for Policymakers</i>, pp. 6-19. Available <a href="#">here</a>.</p>	Submit one question in advance to our guest via google docs by September 18 <sup>th</sup> .
Week 3 September 29	<p><b>Anthropocene</b></p> <p>Steffen, Grinevald, Crutzen and McNeill (2011) “The Anthropocene: conceptual and historical perspectives”. <i>Phil. Trans. R. Soc. A</i> 2011 369, 842-867 doi: 10.1098/rsta.2010.0327.</p>	
		Tutorial 1: review and consultation
Week 4 October 6		<b>Exam 1</b>
Week 5 October 13	<p><b>Searching for the socio-economic causes I. Population growth and the Industrial Revolution</b></p> <p>Eric Hobsbawm (1996 [1962]) <i>The Age of Revolution: 1789–1848</i>, New York: Vintage books. Chapter 2, pp.27-52.</p>	
Week 6 October 20	<p><b>Searching for the socio-economic causes II. The Agricultural revolution, colonialism and long-distance trade</b></p> <p>Eric Hobsbawm (1999) <i>Industry and Empire: From 1750 to the Present Day</i>, revised edition, London: Penguin books. Chapter 5, pp. 75-86.</p> <p>J.D. Chambers and G.E. Mingay (1966) <i>The Agricultural Revolution From 1750 to 1880</i>, London: Batsford. Chapter 3, pp. 54-76.</p>	
Week 7	<p><b>Fall break</b></p> <p>Classes are suspended.</p>	

Week 8 November 3	<b>The old world of peasants and nomads</b>  William Cronon (2003) <i>Changes in the Land: Indians, Colonists, and the Ecology of New England</i> , 20th anniversary edition, New York: Hill & Wang. Chapter 3, pp. 34-53.	
Week 9 November 10		<b>Exam 2</b>
Week 10 November 17	<b>Capitalism in history and as an economic system I</b>  Karl Marx (1990 [1867]) <i>Capital. A Critique of Political Economy</i> , Volume 1, London: Penguin Books. Chapters 26-31, pp. 873-926.	
Week 11 November 24	<b>Capitalism in history and as an economic system II</b>  Eric Hobsbawm (1994) <i>The Age of Extremes: The Short Twentieth Century, 1914–1991</i> , London: Michael Joseph. Chapter 10, pp. 287-319.	
		Tutorial 2: documentary discussion
Week 12 December 1	<b>Contemporary economic and social dilemmas</b>  McNeill, John Robert and Peter Engelke (2014) <i>The Great Acceleration: An Environmental History of the Anthropocene Since 1945</i> . Cambridge: The Belknap Press of Harvard University Press. pp. 7-40.	
		Tutorial 3: geo- engineering
Week 13 December 8	<b>Our way out. Green capitalism, geo-engineering and social movements</b>  Naomi Klein (2015) <i>This Changes Everything: Capitalism vs. the Climate</i> , Vintage Canada. Chapter 8, pp. 256-290.  Naomi Klein (2015) <i>This Changes Everything: Capitalism vs. the Climate</i> , Vintage Canada. Pp. 152-160.	
Week 14 December 15		<b>Final exam</b>

### Further reading:

For those of you interested in learning more, during the term or after, here is a brief introductory bibliography that can be useful. These are not mandatory readings.

#### *Natural sciences*

Crutzen and Stoermer (2000) "The Anthropocene".

Crutzen, Paul (2002) "Geology of mankind".

Crutzen and Steffen (2003) "How long have we been in the Anthropocene Era?"

Hansen, James (2009) *Storms of My Grandchildren: The Truth About the Coming Climate Catastrophe and Our Last Chance to Save Humanity*.

Leakey, Richard E. and Roger Lewin (1996) *The Sixth Extinction: Biodiversity and Its Survival*.

Lewis, Simon L. and Mark Maslin (2018) *The Human Planet: How We Created the Anthropocene*.

Rockström, et. al. (2009a) "A safe operating space for humanity".

Rockström, et. al. (2009b) "Planetary Boundaries. Exploring the Safe Operating Space for Humanity".

Steffen, et. al. (2015) "Planetary boundaries. Guiding human development on a changing planet".

Smil, Vaclav (2001) *Enriching the Earth: Fritz Haber, Carl Bosch and the Transformation of World Food Production*.

Smil, Vaclav (2017) *Energy and Civilization: A History*.

Schneider, Steven H. (1998) *Laboratory Earth: The Planetary Gamble We Can't Afford to Lose*.

#### *History*

Braudel (1979a) *Civilization and Capitalism. 15th-18th Century, Volume I. The Structure of Everyday Life*.

Braudel (1979b) *Civilization and Capitalism, 15th-18th Century, Volume II. The Wheels of Commerce*.

Braudel (1979c) *Civilization and Capitalism, 15th-18th Century, Volume III. The Perspective of the World*.

Chambers, Jonathan David and G. E. Mingay (1966) *The Agricultural Revolution, 1750-1880*.

Cronon, William (1983) *Changes in the Land: Indians, Colonists and the Ecology of New England*.

Cronon, William (1991) *Nature's Metropolis: Chicago and the Great West*.

Hobsbawm, Eric (1962) *The Age of Revolution 1789-1848*.

Hobsbawm, Eric (1975) *The Age of Capital. 1848-75*.

Hobsbawm, Eric (1987) *Age of Empire 1875-1914*.

Hobsbawm, Eric (1994) *The Age of Extremes. The Short Twentieth century*.

Hobsbawm, Eric (1977) *Industry and empire*.

Hudson, Pat (1992) *The Industrial Revolution*.

Mantoux, Paul, (1905) *The industrial revolution in the eighteenth century*.

McNeill, John Robert (2001) *Something New Under the Sun: An Environmental History of the Twentieth-Century World*.

McNeill, John Robert and Peter Engelke (2014) *The Great Acceleration: An Environmental History of the Anthropocene Since 1945*.

Williams, Michael (2002) *Deforesting the Earth: From Prehistory to Global Crisis*.

Wolf, Eric R. (1982) *Europe and the People Without History*.

#### *Economics*

Marx, Karl (1976 [1867]) *Capital*. Vol. I.

Marx, Karl (1978 [1885]) *Capital*. Vol. II.

Marx, Karl (1981 [1894]) *Capital*. Vol. III.

Piketty, Thomas (2013) *Capital in the Twenty-First Century*.

## EVALUATION

Students will be mainly evaluated on their knowledge and intellectual skills (although the lectures and tutorials will aim to provide cognitive strategies not necessarily evaluated).

**1. Attendance and Participation (20%)**

This course is scheduled as a series of lectures, most of them synchronous, and attendance and participation are required: the course and your learning depend on your coming to class well prepared and on a regular basis. Together, attendance (10%) and participation (10%) represent a significant percentage of your total mark. We will take attendance at each class. The participation mark aims to reward insightful engagement with the lecture and the assigned readings, both in the form of questions or comments.

**2. Exam 1 (20%)**

The test will evaluate the students' gained knowledge from the first block of topics in the term. Questions will cover both lecture and reading contents. The test will be administrated online via cuLearn at the regular scheduled class day and time, according to the course calendar.

**3. Exam 2 (20%)**

The test will evaluate the students' gained knowledge from the second block of topics in the term. Questions will cover both lecture and reading contents. The test will be administrated online via cuLearn at the regular scheduled class day and time, according to the course calendar.

**4. Tutorials (10%)**

Students are expected to participate in three different tutorial sessions led by their TAs. While the first one is not mandatory the other two are worth 5 marks each. The sessions will be scheduled by your TAs (the weeks in which they will take place are stated in the course calendar). The first tutorial is focused on reviewing the lectures and readings for the first exam. The purpose of the other sessions is to reflect critically on geo-engineering and a documentary (viewed at the student's convenience) in conjunction with your peers in online group sessions. Students are expected to draw connections to lectures and readings and show engagement with the materials and will be evaluated accordingly.

**5. Final exam (30%)**

The final test will cover all lecture topics and assigned readings. Since it will represent the single largest fraction of the grade, two options that accommodate better to the student's preferences are provided.

Option 1. Oral exam. Students will be asked a number of questions during a period of 15 to 25 minutes. Students -up to a third of the total enrollment- can sign up by week 13<sup>th</sup>.

Option 2. Written test. Administrated via cuLearn at the regular scheduled class day and time, according to the course calendar.

Standing in a course is determined by the course instructor subject to the approval of the Faculty Dean. This means that grades submitted by the instructor may be subject to revision. No grades are final until they have been approved by the Dean.

## **COURSE POLICIES**

### **Course format**

Most of the lectures will be delivered in a synchronous format through Zoom according to the schedule detailed above. A recurrent meeting Zoom link will be provided via cuLearn. In addition to the asynchronous sessions already scheduled, it is possible that some sessions will be recorded in advance and become asynchronous. If this is the case, it will be announced in advance.

### **Technological requirements**

The online format of the course this semester and particularly the synchronous design of most lectures require students to familiarize themselves with the free version of Zoom. University technicians recommend an internet connection with 5Mbps upload. Additionally, they recommend, if possible, to connect your computer directly to your modem with an ethernet cable to maximize your internet speed.

### **Other course materials**

Some PowerPoint slides, used during lectures, will be posted on cuLearn.

### **Communication and E-mail**

The fundamental information for this course is contained in this syllabus. I will communicate other relevant information about the course to you via cuLearn. If you have more in-depth questions about the lectures and course material, book an appointment for an online meeting during my office hours. If you are not able to make my office hours due to a valid reason, we can arrange for an appointment at another time during the week in case of important matters.

For any general consultations and advice, or in relation to your participation mark, communicate with your TA to discuss them.

**Extenuating circumstances:** Reasonable accommodations will be made for students with extenuating circumstances (i.e. out of your control). Missed classes must be reasonably justified to your TA. In case of missed exams due to unforeseen circumstances, current university regulations will be followed.

### **Plagiarism**

The University Senate defines plagiarism as “*presenting, whether intentionally or not, the ideas, expression of ideas or work of others as one’s own.*” This can include:

- reproducing or paraphrasing portions of someone else’s published or unpublished material, regardless of the source, and presenting these as one’s own without proper citation or reference to the original source;
- submitting a take-home examination, essay, laboratory report or other assignment written, in whole or in part, by someone else;
- using ideas or direct, verbatim quotations, or paraphrased material, concepts, or ideas without appropriate acknowledgment in any academic assignment;
- using another’s data or research findings;
- failing to acknowledge sources through the use of proper citations when using another’s works and/or failing to use quotation marks;
- handing in "substantially the same piece of work for academic credit more than once without prior written permission of the course instructor in which the submission occurs."

Plagiarism is a serious offence that cannot be resolved directly by the course's instructor. The Associate Dean of the Faculty conducts a rigorous investigation, including an interview with the student, when an instructor suspects a piece of work has been plagiarized. Penalties are not trivial. They can include a final grade of "F" for the course.

## Requests for Academic Accommodations

Carleton provides **academic accommodation to students** for reasons of disability, religious observance, pregnancy and/or parental leave, sexual violence, and student activities.

Providing accommodations simply means providing alternatives to students who cannot perform the essential requirements of their academic programs due to the reasons mentioned above. At no time does academic accommodation undermine or compromise the learning objectives that are established by the academic authorities of the university.

This section provides only a brief overview of the accommodations policy and process. Please contact **Equity and Inclusive Communities** for a full explanation.

### ***Religious Observation***

A request should be made in the first two weeks of the academic term, or as soon as possible where the scheduling of an event or activity conflicting with a religious obligation does not appear in the course outline or calendar. A list of multi-faith holy days is accessible through the **Equity Services website**. Instructors can also contact Equity Services to confirm the eligibility of a religious event or practice.

### ***Pregnancy and/or Parental Leave***

Requests for parental leave must be made in writing to the Registrar's Office, or in the case of graduate students, to the Office of the Dean of Graduate and Postdoctoral Affairs.

A student who is pregnant may request a temporary modification to her program (e.g., laboratory or field work). The student should meet with the instructor(s). The department chair/director and the faculty dean can assist in the discussion. An Equity Services advisor can also be consulted if a student has questions about pregnancy and/or parental leave.

### ***Students with Disabilities***

Carleton is strongly committed to providing access and accommodation for all individuals with identified and duly assessed disabilities. The university has a **Senate-approved policy on academic accommodation** that forms part of its human rights policy. The policy promotes efforts to accommodate students with disabilities so that they will have the opportunity to meet learning outcomes and be fairly evaluated in their performance. In no case, however, does academic accommodation negotiate away, lower, or remove the academic standards and learning outcomes of any course or program, rule, regulation, or policy at the university.

Some students with disabilities may require special accommodations for tests and exams. In these cases, students must present you with a signed accommodation form from the Paul Menton Centre detailing their accommodation needs well in advance of the date of an exam. A copy of the **Paul Menton Centre accommodations policy can be found here**.

**Survivors of Sexual Violence**

As a community, Carleton University is committed to maintaining a positive learning, working and living environment where sexual violence will not be tolerated, and where survivors are supported through academic accommodations as per Carleton’s Sexual Violence Policy. For more information about the services available at the university and to obtain information about sexual violence and/or support, visit [carleton.ca/sexual-violence-support](http://carleton.ca/sexual-violence-support).

**Accommodation for Student Activities**

Carleton University recognizes the substantial benefits, both to the individual student and for the university, that result from a student participating in activities beyond the classroom experience. Reasonable accommodation must be provided to students who compete or perform at the national or international level. Please contact your instructor with any requests for academic accommodation during the first two weeks of class, or as soon as possible after the need for accommodation is known to exist. For more details, see [the policy](#).

**Contacts**

<b>Equity Services</b> 503 Robertson Hall 613-520-5622 <a href="mailto:equity@carleton.ca">equity@carleton.ca</a> <a href="http://carleton.ca/equity">carleton.ca/equity</a>	<b>Paul Menton Centre</b> 501 University Centre 613-520-6608 <a href="mailto:pmc@carleton.ca">pmc@carleton.ca</a> <a href="http://carleton.ca/pmc">carleton.ca/pmc</a>
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