

Understanding the Climate Crisis — An Interdisciplinary Introduction

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Fall Semester

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Office Hours: by appointment

Short description:

The earth is heating up: these days, there is no controversy in the scientific community about this fact. Humanity's contribution to the climate crisis, and the dramatic consequences of global warming on all living things, and on humanity in particular, is also of little controversy. There is widespread agreement that we are at a critical turning point; that, as the UN has declared, "Climate change is the defining issue of our time and now is the defining moment to do something about it." In light of this reality, engaging with the climate crisis in all of its complexity and multidisciplinary dimensions is the crucial order of the hour.

The course will consist of three parts: First, we will study the scientific foundations of the climate crisis; we will analyze the evidence for global warming, scientific explanations for the greenhouse effect and its contributing factors, and especially those that are the result of human activity. We will outline the risks projected under the various scenarios of greenhouse gas emissions, from natural disasters to the mass extinction of species. We will also address the claims of climate deniers. The second part of the course will be devoted to understanding how we can tackle the crisis, beginning with studying the history of international agreements made to curb greenhouse gas emissions, and examining the steps – both proposed and underway – that aim at creating incentives for alternative economies and energy sources. Next, we'll review current technological approaches to slowing down global warming, like solar and wind power, and learn about the technological challenges of developing future solutions, like attractive alternatives to animal products, atmospheric carbon dioxide removal technologies, and green technologies that could transform the aviation and construction industries. The course's final section addresses the sociological, psychological, and philosophical aspects of the crisis, which are integral to understanding and dealing with this global challenge as a global community. We will discuss the impact of consumer culture on the crisis and the pertinence environmental ethics; We will ask what our duty is toward future generations, and how much personal sacrifice can be justified for the general public. Finally, we will examine our possible responses to the alarming future proposed by the climate crisis: despair, repression, escapism and hope.

Assessments:

Minor assignments and participation: As a preparation for the classes students will be required to post a response or a question to a dedicated forum in the Moodle. Students are expected to participate actively by contributing fruitfully to class discussions, reading the relevant materials in preparation to class. 20%

Mid Term: In-class exam on the scientific part of the course – 19%

Final Exam: In class exam – 61%

Attendance:

Attendance is mandatory. Students are permitted a maximum of three absences without penalty. Any additional absences will affect the final grade and may result in failure of the course.

Academic conduct:

Plagiarism is taken extremely seriously. Any instance of academic misconduct which includes: submitting someone else's work as your own; failure to accurately cite sources; taking words from another source without using quotation marks; submission of work for which you have previously received credit; working in a group for individual assignments; using unauthorized materials in an exam and sharing your work with other students, will result in failure of the assignment and will likely lead to further disciplinary measures.

Additional requirements:

Students are requested to turn off all electronic devices.