0IECOX02 - Energy and Climate Change Economics

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Department: International affairs
Semester: 1

Course level: L3 Undergraduate
Domain: Economics
Teaching language: English
Number of in-class hours: 33
Number of course sessions: 10 + Exam
ECTS: 6

Course description and objectives

Climate change is mainly linked to an energy model historically based on fossil fuels (coal, oil and natural gas) since the first industrial revolution. Limiting the main effects of climate change (extreme weather events, air pollution, sea level growth, …) and their economic costs imply to deploy low carbon energy means (wind power, solar power, …), to improve energy efficient and, mode widely, to transform the organisation of our societies. The course addresses the main economic challenges related these transformations.

Prerequisites

No

Learning outcomes

Understand the economic issues related to energy and climate change and the main principles of the economics tools and regulations for the management.

Climate change issues have received increasing attention over the last decades, with a huge impact on the energy systems.

In this context, the course examines:

- Economic theory, empirical perspectives, and political economy of energy supply and demand, both for fossil fuel and low carbon sources of energy.
- Public policies affecting energy markets including taxation, price regulation and deregulation, energy efficiency, and control of emissions.
- A specific attention will be given to economic policies such as carbon taxes and tradable emission permits and to the problems of displacing fossil fuels with new energy technologies.

Assignments and grading

Final exam (100%)

Course structure

Session	Topic
1	Introduction
2	The causes and consequences of climate change
3	The international framework: From the Kyoto Protocol to the Paris Agreement
4	The paradox of inaction
5	What the energy crisis means for climate action
6	Focus1: The issue of universal access to energy
7	Focus2 : The challenge of biodiversity loss
8	Long term scenarios (based on the World Energy Outlook 2023)
9	Live analysis of COP 28
10	Conclusion
11	**FINAL EXAM**

Bibliography

Reading list and documents will be given in class and proposed online, on Moodle, as well as course presentations. No specific textbook is required.

Moodle

This course is on Moodle: **Yes**

Academic integrity

Be aware of the rules in Université Paris Dauphine about plagiarism and cheating during exams. All work turned in for this course must be your own work, or that of your own group. Working as part of a group implies that you are an active participant and fully contributed to the output produced by that group.