Economics for Sustainable Development

Professor: Cristina Vinyes Pinto

Office hours: By appointment
Course Type: Compulsory
Credits: 3 ECTS
Term: First

1. COURSE PRESENTATION

Course Description

"Economics for Sustainable Development" is a first-term compulsory course in the MSc in Sustainability Management, at UPF Barcelona School of Management. The course focuses on understanding the economic approach to sustainability, particularly in environmental economics and policy design. Students will learn about the economic concepts and tools used to address sustainable development challenges, environmental issues, manage natural resources, and implement effective policies like taxes and market-based permits. The course also emphasizes the international dimensions of environmental policy and global sustainability challenges.

The course in the study plan

This **compulsory** course belongs to the subject of **Economic Dimension of Sustainability** of the study plan. It takes place in the **first quarter**.

Learning Objectives

At the end of the course, students should:

- Understand the relationship between economic growth, human development andsustainability.
- Understand major global indicators for each SDG target.
- Gain deep understanding of the economic approach to environmental issues, including externalities, public goods and common resources.
- Learn and critically evaluate the main economic instruments of environmental policy to limit pollution, focusing on the design and implementation of taxes and market permits.
- Understand the key economic concepts and techniques applied to the management of natural resources.

- Gain insight into the international aspects of environmental issues and policy.

Related SDG

SDG 1: No Poverty
SDG 2: Zero Hunger
SDG 3: Good Health and Well-being
SDG 4: Quality Education
SDG 5: Gender Equality
SDG 6: Clean Water and Sanitation
SDG 8: Decent Work and Economic Growth
SDG 9: Industry, Innovation and Infrastructure
SDG 10: Reduce Inequalities
SDG 11: Sustainable Cities and Communities
SDG 12: Responsible Consumption and Production
SDG 14: Life Bellow Water
SDG 15: Life on Land
SDG 17: Partnerships for the Goals

2. COURSE LEARNING PLAN

Methodology

The course comprises eight 3-hour sessions, which combine theory lecturing with general debates, in-class activities, discussions on cases and exercises. The students will also engage in presentations of a project assignment. Activities will require both individual and group work.

The course also involves a substantial amount of autonomous work outside the classroom, combining readings that will help you to gain a deeper understanding of the material covered in the class.
Hours devoted by the student (according to ECTS): **75**

Evaluation criteria

Five elements concur in the final mark:

- **Final exam (40%).** The final exam assesses each student's individual knowledge and understanding of the course material, covering topics from all lectures. A minimum score of 4 is required to pass the course, including in any retake exam.
- **In-class activities and homework (15%).** This component evaluates how well students apply their knowledge through in-class exercises, assignments, and participation in discussion boards. Students are expected to demonstrate their grasp of course topics in these practical applications.
- **Small Reports (10%):** Students will conduct independent research on various class topics and share their findings in the course forum. They will

also be required to present their reports as a group during class discussions.

- **Presentation (15%)**: Each student will participate in a group presentation project. Specific instructions and expectations for the presentation will be communicated separately.
- **Class attendance and active participation (20%).** Attendance is mandatory and recorded at each session. Active participation and punctuality are also essential. Unexcused absences will negatively impact your final grade in this category, with two or more unexcused absences resulting in an automatic score of zero.

Attended **all** the sessions + actively and consistently participated in **all** the class discussions throughout the course.	**20**
Attended **al**l the sessions + actively and consistently participated in **most** class discussions	**15-19**
No more than **one** unexcused absence + **regularly** participated in class discussions	**10-14**
No more than **one** unexcused absence + participated in **some** class discussions	**5-10**
No more than **one** unexcused absence + **limited** or no participation in class discussions	**1-5**
More than one unexcused absence or other significant issues	**0**

Other evaluation criteria to take into consideration:

- **Retake**

Students who fail the course during the regular evaluation will be allowed ONE retake of the exam/evaluation. The **maximu**m possible **grade** for the course after the retake is a **5**. If the course is failed again after the retake, students will be required to register for the course again the following academic year.

- **No-show**

In the case of a justified absence from an exam, the student must notify the relevant faculty member and program directors as soon as possible. They will evaluate the possibility of rescheduling the exam, which may take place during the "retake" period. In the meantime, the student will receive an "incomplete," which will be replaced by the final grade once the exam is taken. The "incomplete" will not appear on the student's academic transcript.

- **Plagiarism**

Plagiarism involves using another person's work and presenting it as your own

without properly acknowledging the source. All essays, reports, or projects submitted by students must be original work. By enrolling in any UPF BSM Master of Science program and signing the "Honor Code," students confirm that they understand the school's plagiarism policy and guarantee that all assignments will be their own work, with proper referencing where applicable. Failure to comply may result in automatic expulsion from the program.

Calendar and contents

PART1: THE ECONOMICS FOR SUSTAINABLE DEVELOPMENT

Week 1 – Sep. 30th: Introduction - definitions. The economics of sustainability. Economic Growth and Sustainability. Issues and measurement (I).

Week2 – Oct. 14th: Economic Growth, Human Development and Sustainability. Issues and measurement (II).

In-class activity: SDG tracker.

PART2: ENVIRONMENTAL SUSTAINABILITY

Week 3 – Oct. 21st: Environmental economics: Externalities and market failure.

In-class activity: Case study + 1st group meeting

Week 4 – Oct. 28th: Natural Resource Economics and management.

In-class activity: The fish game + 2nd group meeting

Week 5 – Nov. 4th: Economic Instruments for environmental policy: Pollution Control, taxes, markets for permits I.

(Presentation due at midnight)

Week 6 – Nov. 11th: Economic Instruments for environmental policy: Pollution Control, taxes, markets for permits II.

In-class activity: Group presentations (3 groups)

PART3: PRESENTATIONS

Week 7 – Nov. 18th: GUEST SPEAKER

In-class activity: Group presentations (2 groups)

Week 8 – Nov. 25th: International Environmental Policy and global challenges.

In-class activity: Group presentations (3 groups)

FINAL EXAM: Dec. 9th

3. PROFESSOR

Cristina Vinyes Pinto holds a PhD and Master of Science in Applied Economics from the University of Minnesota, where she graduated with honors. Her specialization areas include economic growth and development, and environmental economics. Her dissertation focused on analyzing alternative energy resources in Brazil and their economic impacts. She also holds two undergraduate degrees in Economics and Mathematics from Arizona State University.

Cristina is a lecturer at ESCI-UPF, where she teaches Macroeconomics and International Economics, and at UAB, where she teaches International Trade and Finance.

In addition to her academic roles, Cristina serves as a consultant for the European Commission's Joint Research Centre (JRC), having worked as a scientific researcher on international trade and alternative energy sources.

4. READING MATERIALS/BIBLIOGRAPHY/RESOURCES

No textbook is required for this course. All the required materials will be provided or should be found at UPF library. Any readings, notes, handouts, datasets, discussion boards or additional course material will beavailable through the course website. Although there is no core textbook for the course, an overview of most topics can be found in the reading list below.

Atkinson G., Dietz S. and Neumayer E. (2014), *Handbook of Sustainable Development*. Edward Elgar. Second Edition.

Dasgupta, Partha (2021), *The Economics of Biodiversity: The Dasgupta Review* (London: HM Treasury).

Sachs, Jeffrey D. (2015), *The Age of Sustainable Development.* Columbia University Press.

Tietenberg, Tom and Lynne Lewis (2023), *Environmental and Natural Resource Economics*, 10th Edition. Pearson.

United Nations Development Program (2024), The SDGs and the UN summit of the Future.