Foundations of Ecological Economics  2016/2017

Code: 42407
ECTS Credits: 9

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<th>Degree</th>
<th>Type</th>
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<th>Semester</th>
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<tr>
<td>4313784 Interdisciplinary Studies in Environmental, Economic and Social Sustainability</td>
<td>OT</td>
<td>0</td>
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Contact

Name: Esteve Corbera Elizalde
Email: Esteve.Corbera@uab.cat

Teachers

Jeroen Van Den Bergh
Gonzalo Gamboa Jimenez

Use of languages

Principal working language: english (eng)

Prerequisites

No aplica.

Objectives and Contextualisation

The course will introduce the field of ecological economics, paying attention to theoretical, methodological and empirical issues. Classic themes, important debates and recent research foci will receive attention. Valuation methods that cut across ecological and environmental economics will also be explored.

At the end of the course the student is expected to have a good understanding of:

1. The main themes, theories and methods addressed by ecological economics, including: the origins and principles of ecological economics, the idea of welfare and externalities, environmental and climate policy instruments, complex systems, environmental governance and conflicts, environmental and multi-criteria valuation, ecosystem services and the growth/degrowth debate;
2. The basic literature regarding ecological economics;
3. The essential differences between the way environmental problems and solutions are approached in environmental economics and ecological economics;
4. New methods that have been proposed by, and are applied within, ecological and environmental economics, such as environmental valuation methods, multi-scale integrated assessment, and social multi-criteria evaluation.

Skills

- Apply knowledge of environmental and ecological economics to the analysis and interpretation of environmental problem areas.
- Communicate and justify conclusions clearly and unambiguously to both specialised and non-specialised audiences.
- Communicate orally and in writing in English.
- Continue the learning process, to a large extent autonomously
- Integrate knowledge and use it to make judgements in complex situations, with incomplete information, while keeping in mind social and ethical responsibilities.
• Seek out information in the scientific literature using appropriate channels, and use this information to formulate and contextualise research in environmental sciences.
• Work in an international, multidisciplinary context.

Learning outcomes

1. Adopt a holistic perspective on the relationship between the economy and biophysical systems.
2. Communicate and justify conclusions clearly and unambiguously to both specialised and non-specialised audiences.
3. Communicate orally and in writing in English.
4. Continue the learning process, to a large extent autonomously.
5. Differentiate between the approaches to environmental problems of environmental and ecological economics.
6. Integrate knowledge and use it to make judgements in complex situations, with incomplete information, while keeping in mind social and ethical responsibilities.
7. Know the role of the institutions in environmental governance.
8. Seek out information in the scientific literature using appropriate channels, and use this information to formulate and contextualise research in environmental sciences.
9. Work in an international, multidisciplinary context.

Content

The FEE course involves a series of 3-hour lectures organised in four main sub-modules under the responsibility of specific teachers. Some teachers may provide slides in advance through the CV but others may not. All readings need to be found by the student from internet and academic library sources (e.g. Scopus, Web of Knowledge) available on the UAB campus.

Sub-Module 1: Foundations, Policy & Innovation (JvdB)

History and principles of ecological economics (18th Oct)

Welfare, markets, externalities and public goods (20th Oct)

Environmental policy instruments (25th Oct)

Theories and methods of environmental valuation (27th Oct)

Economics of climate policy (3rd Nov)

The ecological footprint and spatial sustainability (5th Nov)

Behavioural economics and environmental policy (10th Nov)

The environment-versus-growth debate (15th Nov)

Essay & dissertation writing (17th Nov)

Sub-Module 2: Methods for integrated assessment (GG)

Multi-scale integrated assessment (22nd Nov)

Social multi-criteria evaluation - SMCE (24th Nov)

SMCE in practice (29th Nov)
Sub-Module 3: Institutional Aspects (EC)

Institutional economics and environmental governance (1st Dec)

Property and access theory, incl. case study (13th Dec)

(Mis)trust and cooperation: a game (15th Dec)

Sub-Module 4: Ecosystem Services Issues and Public Policies (EC)

Commodification of ecosystem services (20th Dec)

Payments for ecosystem services and environmental offsets, incl. case studies (22nd Dec)

REDD+, incl. case study (10th Jan)

Final exam (12th Jan)

Methodology

Lecturers will present a given topic and students will be expected to prepare for the class reading in advance the compulsory readings suggested in the bibliography. Lectures will involve time for questions and answers and for discussion; they might also involve role-play exercises and video-material. Presentation and essays preparation will involve group and individual work, respectively.

Activities

<table>
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<tr>
<th>Title</th>
<th>Hours</th>
<th>ECTS</th>
<th>Learning outcomes</th>
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<tbody>
<tr>
<td>Lectures</td>
<td>54</td>
<td>2.16</td>
<td>6, 4</td>
</tr>
<tr>
<td>Presentation and discussion in class</td>
<td>8</td>
<td>0.32</td>
<td>3, 2, 6, 4, 9</td>
</tr>
<tr>
<td>Reading articles, books and studying for each of the given lectures and the final exam</td>
<td>100</td>
<td>4</td>
<td>7, 1, 5, 6, 4, 9</td>
</tr>
<tr>
<td>1 short and 2 longer essays, which involve reading the necessary literature to write the essays</td>
<td>60</td>
<td>2.4</td>
<td>8, 6, 4, 9</td>
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Evaluation

Students will be assessed on the basis of a written, closed-book exam; and three written essays:

The final exam will contribute towards 50% of the final mark. The exam will take place on the 12th January 2017, from 10 to 13:00 hours. It will cover aspects of each module of the course. Students will have limited space to answer each of these questions and will have to show that they have understood and mastered key concepts and ideas introduced during the course. The contributing teachers will evaluate the exam together.
A 500-words personal statement focused on the environment-versus-growth debate, and to be submitted in class and to Jeroen van den Bergh by 15th November 2016, contributing to 10% of the final mark.

A 1500-words multi-criteria exercise report, to be submitted by email to Gonzalo Gamboa by 15th December 2016, and contributing to 20% of the final mark:

Choose a socio-environmental conflict and develop a multi-criteria structure of the problem. This includes describing the problem/conflict and the actors involved, their objectives and positions in the conflict. Based on the priorities of the different actors, develop a set of alternatives to be compared, the attributes and the evaluation criteria. Also, choose a multicriteria method to compare the alternatives and justify your choice.

A 1500-words argumentative essay, to be submitted by email to Esteve Corbera by 12th January 2017, and contributing to 20% of the final mark:

Discuss critically the following statement: "REDD+ strategies and projects have potential to realise environmental justice at global, national and local scale".

**Evaluation activities**

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<tr>
<th>Title</th>
<th>Weighting</th>
<th>Hours</th>
<th>ECTS</th>
<th>Learning outcomes</th>
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<tr>
<td>Final exam</td>
<td>50%</td>
<td>3</td>
<td>0.12</td>
<td>8, 3, 7, 1, 5, 2, 6, 4, 9</td>
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<tr>
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<td>0</td>
<td>0</td>
<td>8, 3, 7, 5, 2, 6, 4, 9</td>
</tr>
</tbody>
</table>

**Bibliography**

(*) Lectures obligatòries

1. History and principles of Ecological Economics


2. Welfare, markets, externalities and public goods

(*) Kahn, J.R. 2004. The Economic Approach to Environmental and Natural Resources. 3rd edition, Thomson/South-Western, Fort Worth, Mason, Ohio. ch. 2; & ch. 4, section "What is Value".


3. Environmental policy instruments

4. Theories and methods of environmental valuation

(*) Perman et al., Valuing the Environment, Chapter 4 in Natural Resource and Environmental Economics


5. Economics of climate policy

(*) Executive summary of The Stern review: The Economics of Climate Change (2006).
http://news.bbc.co.uk/2/shared/bsp/hi/pdfs/30_10_06_exec_sum.pdf


Responses to / debate on the Stern review (http://www.hm-treasury.gov.uk/6520.htm).


6. The ecological footprint and spatial sustainability


with response by Wackernagel in the journal and on the web, and replies by van den Bergh/Grazi in same journal and journal (2015).


7. Behavioral economics and environmental policy


8. The environment-versus-growth debate


10. Multi-scale integrated assessment


11. Social multi-criteria evaluation - SMCE


12. SMCE in practice


13. Institutional economics and environmental governance


14. Property and Access Theory


15. Mis(trust) and cooperation: a game


16. Commodification of ecosystem services


Marx, K. The commodity. In: Capital, Chapter 1. Read specially sections 1 (The Two Factors of the Commodity) and 4 (The Fetishism of the Commodity and Its Secret).


17. Payments for Ecosystem Services and Environmental Offsets


Pattanayak, S., Wunder, S. & Ferraro, P., 2010 Show me the money: do payments supply environmental services in developing countries? Rev. Env. Econ. Pol. 4: 254-274.


18. REDD+


