



Course guide

250661 - ECONLEGPAM - Environmental Economics, Law and Policy

Last modified: 28/03/2024

Unit in charge: Barcelona School of Civil Engineering
Teaching unit: 745 - DEAB - Department of Agri-Food Engineering and Biotechnology.
Degree: MASTER'S DEGREE IN ENVIRONMENTAL ENGINEERING (Syllabus 2014). (Compulsory subject).
Academic year: 2023 **ECTS Credits:** 5.0 **Languages:** Spanish

LECTURER

Coordinating lecturer: YASMINA BABA EL MOKHTARI
Others: YASMINA BABA EL MOKHTARI

TEACHING METHODOLOGY

The course consists of 3 hours per week of classroom activity (large size group).

The classes in the large size groups are devoted to theoretical issues, in which the basic concepts and topics of the subject are introduced, and some exercises and questions are performed.

Support material in the form of a detailed teaching plan is also provided using the virtual campus ATENEA: contents, conducted learning program and assessment activities, and also the relevant literature.

Although most of the sessions will be given in the language indicated, sessions supported by other occasional guest experts may be held in other languages.

LEARNING OBJECTIVES OF THE SUBJECT

CE01 - Apply scientific concepts to environmental problems and their correlation with technological concepts.
 CE04 - Identify, define and propose technological management and appropriate solution to an environmental problem.
 CE06 - Ask practically, with an economic perspective and according to the applicable environmental legislation, environmental management tools and environmental risk assessment.
 CE07 - Plan and schedule projects according to parameters cross-project evaluation, develop and organize their basic documentation and analyze technical and economic viability.

Understand the context in which they have developed environmental policies.
 Meet environmental legislative framework and the main regulations that develop it.
 Analyzes the economic factors associated with environmental management.
 Understands the concepts and actions resulting from the prevention and control of pollution.
 Know the main elements associated with environmental management.
 Apply environmental management tools.
 Tools known environmental risk analysis for human health and ecosystems.
 Meet the analysis tools lifecycle and sustainability, and its practical application.
 Solidify the main knowledge that characterize and define the project methodologies and their application to the field of Environmental Engineering.
 Acquire knowledge and skills to manage environmental projects, evaluating alternatives and making decisions about their viability.
 Definition applies methods and project management in the development of an environmental project (case study).
 Learn in a practical way the dynamics of multidisciplinary teamwork.

Setting development of environmental policies:
 Development and implementation of environmental policies. International framework.
 Environmental policy in the EU.
 Geopolitical considerations: International regional, state, EU.
 Environmental Legislation:
 Sources and principles of environmental law.
 Type of legal techniques of environmental protection.
 Instruments of direct regulation of polluting activities.
 Environmental responsibility.
 Stewardship of the environment.
 Sectoral Environmental Protection.
 Economic aspects of environmental management:
 Introduction to environmental economics.
 Economic and regulatory policy.
 Methods of environmental economic evaluation.
 Cost / benefit and economic risks.
 Business and environment: environmental accounting.

Once the module is finished, the student will be able to:

- Apply principles and concepts of economics in the analysis of basic environmental problems.
- Analyze the influence of public and private decision-making and environmental regulation in public and private management means ambiente.
- Consider the application of various Organization and management techniques in the production of goods using natural resources from sources alternatives.
- Quantify the environmental costs and benefits associated with the production of goods using natural resources from alternative sources.

STUDY LOAD

Type	Hours	Percentage
Hours large group	25,5	20.38
Hours medium group	9,8	7.83
Hours small group	9,8	7.83
Self study	80,0	63.95

Total learning time: 125.1 h

CONTENTS

Foundations of microeconomics

Description:

The fundamental concepts of economic analysis are presented. These concepts allow to analyze the decisions of the major economic actors (both private and public), and under different market structures.

Specific objectives:

Mastering the key instruments, both public and private economic analysis.

Full-or-part-time: 14h 23m

Theory classes: 6h

Self study : 8h 23m

Introduction to environmental economics

Description:

- Introduction to the Basics of Public Economics.
- Introduction to the main instruments of Environmental Policy.
- Introduction to environmental assessment methodologies.
- Indirect methods: Cost Travel, avoided costs and hedonic price.
- Direct methods: Contingent Valuation.
- Other.

Description and theoretical foundations of the main environmental valuation methodologies.

Specific objectives:

Applying Organizational and Management Techniques in Real Productions of Natural Resources through the effects from alternative sources. Assess effects of Social and Private Partners in Real Productions through Natural Resources from alternatives. Estimation of sources of main social and private problems linked to the functioning of the production company of Natural Resources from alternative sources.

Explore the diversity of ways in which environment and social difference are intertwined and how the justice of their interrelationship matters.

Full-or-part-time: 57h 35m

Theory classes: 24h

Self study : 33h 35m

Environmental valuation methods. Case studies

Description:

Consider the main problems linked to external private and a business producing goods using natural resources.

Specific objectives:

Knowledge of the main instruments of economic environmental analysis.

Full-or-part-time: 14h 23m

Practical classes: 6h

Self study : 8h 23m



Evaluation

Full-or-part-time: 7h 11m

Laboratory classes: 3h

Self study : 4h 11m

GRADING SYSTEM

Evaluation.

The final mark is calculated as a weighted sum of the qualifications obtained in a final exam (50%), the evaluation of a real case (25%), and the evaluation of a proposed paper:

Final Mark: $0.5 \cdot \text{Final Exam} + 0.25 \cdot \text{Case} + 0.25 \cdot \text{Evaluation}$

EXAMINATION RULES.

Failure to perform a laboratory or continuous assessment activity in the scheduled period will result in a mark of zero in that activity.

Methology used for evaluation will be the same of the last period.

BIBLIOGRAPHY

Basic:

- Riera, P. [et al.]. Manual de economía ambiental y de los recursos naturales. 3a ed. Madrid: Paraninfo, 2016. ISBN 9788428398824.
- Hussain, S. Ecological Economics. Oxford: Blacwell, 2000. ISBN 9780865427969.

Complementary:

- Lewis, L.; Tietenberg, T. Environmental economics and policy. 7th ed. Abingdon, Oxon ; New York: Routledge, 2020. ISBN 9781138587595.
- Walker, G. Environmental justice: concepts, evidence and politics. New York: Routledge : Taylor and Francis, 2012. ISBN 9780415589741.