

Course guide

390317 - VPA - Environmental Valuation and Policy

Last modified: 06/06/2023

Unit in charge: Barcelona School of Agri-Food and Biosystems Engineering
Teaching unit: 745 - DEAB - Department of Agri-Food Engineering and Biotechnology.

Degree: BACHELOR'S DEGREE IN AGRICULTURAL, ENVIRONMENTAL AND LANDSCAPE ENGINEERING (Syllabus 2009). (Compulsory subject).

Academic year: 2023 **ECTS Credits:** 6.0 **Languages:** English

LECTURER

Coordinating lecturer: OSCAR ALFRANCA BURRIEL

Others:

DEGREE COMPETENCES TO WHICH THE SUBJECT CONTRIBUTES

Specific:

1. Environmental and landscape engineering: Environmental law and management. Principles of sustainable development. Professional practice and market strategies. Assessment of environmental assets.

Transversal:

2. THIRD LANGUAGE. Learning a third language, preferably English, to a degree of oral and written fluency that fits in with the future needs of the graduates of each course.

TEACHING METHODOLOGY

The hours of directed learning consist of lectures where the teacher makes a statement of three parts: (1) introduce the learning objectives, (2) introduce the basic concepts (3) seek student involvement by means of questions in order to relate the above concepts. Practical lessons (small group) to encourage student performing the activities proposed and described in the practice guides to learn various working methodologies related to Environmental economics. Supervision of the student in developing bibliographic research work and support for carrying out work on synthesis and economic analysis. Support material (such as readings, data, diagrams and photographs to support the lectures) is available by the student. This material, theme pdfs, practice guides, references for further reading, etc is distributed via the ATENEA platform. Autonomous learning is also encouraged, particularly through the deliverables and interaction during the lectures.

LEARNING OBJECTIVES OF THE SUBJECT

The understanding of the subject has to lead students to acquire adequate knowledge of the main tools of economic analysis and the application of various techniques of organization and management in the production of goods using natural resources from alternative sources. Other important objectives for the course is the acquisition of techniques for the assessment of the private and external effects associated with the production of goods

using natural resources from alternative sources, as well as the capacity to raise private and external major problems associated with running a business producing goods using natural resources from alternative sources.

STUDY LOAD

Type	Hours	Percentage
Self study	90,0	60.00
Hours large group	40,0	26.67
Hours small group	20,0	13.33

Total learning time: 150 h

CONTENTS

INTRODUCTION TO ENVIRONMENTAL ECONOMICS

Description:

Contents:

- Welfare Economics and the Environment.
- Market Failures and Public Policy: Externalities and public goods.
- Natural resources and factors of production.
- Recursos renovables i recursos no renovables.
- Introducció a l'Economia Ecològica.

Related activities:

Activity 1: Lectures.

Activity 2: Individual evaluation tests.

Activity 3: Practical lessons.

Full-or-part-time: 29h

Theory classes: 16h

Laboratory classes: 3h

Self study : 10h

ECONOMIC POLICY AND ENVIRONMENTAL REGULATION

Description:

Contents:

- Environmental economic policy.
- Taxes and Subsidies.
- Property Rights.
- Administrative Regulation.
- Ethical Aspects.

Related activities:

Activity 1: Lectures.

Activity 2: Individual evaluation tests.

Full-or-part-time: 18h

Theory classes: 3h

Self study : 15h

METHODS OF ENVIRONMENTAL ECONOMIC EVALUATION

Description:

Contents:

- Quantification of environmental variables.
- Economic valuation of the environment.
- Description and application of various techniques.
- Cost-Benefit Analysis.
- Multicriteria evaluation.

Related activities:

Activitat 1: Lectures

Activitat 2: Individual evaluation tests

Activitat 3: Practical lessons

Full-or-part-time: 55h

Theory classes: 7h

Laboratory classes: 13h

Self study : 35h

COMPANIES AND ENVIRONMENT

Description:

Contents:

- Environmental costs for the company.
- Environmental accounting.
- New products and opportunities for the company.
- Environmental management systems for the enterprise.

Related activities:

Activitat 1: Lectures

Activitat 2: Practical lessons

Activitat 3: Individual evaluation tests

Activitat 4: Assignments under academic supervision

Activitat 5: Teamwork

Full-or-part-time: 22h

Theory classes: 14h

Laboratory classes: 8h

ACTIVITIES

ACTIVITY 1: LECTURES

Full-or-part-time: 86h

Theory classes: 38h

Self study: 48h

ACTIVITY 2: INDIVIDUAL EVALUATION TESTS

Full-or-part-time: 2h

Theory classes: 2h



ACTIVITY 3: CASE STUDY

Full-or-part-time: 18h

Theory classes: 16h

Self study: 2h

ACTIVITY 4: ANALYSIS OF AN ENVIRONMENTAL PROBLEM

Full-or-part-time: 44h

Laboratory classes: 4h

Self study: 40h

GRADING SYSTEM

The final grade of the course (Nfinal) is the weighted sum of the different tests and group work evaluated.

N1: Final exam

N2: Discussion and delivery of the case studies

N3: Critical review of proposed articles

$$N_{\text{final}} = 0,5N_1 + 0,30N_2 + 0,2N_3$$

In the event that Nfinal is less than 5, there will be a final test that will include 4 units of both theory and practical activities.

BIBLIOGRAPHY

Basic:

- Azqueta Oyarzun, Diego. Introducción a la economía ambiental [on line]. Madrid [etc.]: McGraw-Hill, 2002 [Consultation: 15/07/2022]. Available on : <https://ebookcentral-proquest-com.recursos.biblioteca.upc.edu/lib/upcatalunya-ebooks/detail.action?pq-origsite=primo&docID=3195155>. ISBN 8448135261.

- Azqueta Oyarzun, Diego. Valoración económica de la calidad ambiental. Madrid [etc.]: McGraw-Hill, 1994. ISBN 8448118537.

- Pasqual Rocabert, Joan. La Evaluación de políticas y proyectos : criterios de valoración económicos y sociales. Barcelona : Bellaterra: Icaria ; Universitat Autònoma de Barcelona, Servei de Publicacions, 1999. ISBN 8474264278.

- Field, Barry C. Economía del medio ambiente. 3ª ed. Madrid: McGraw-Hill, 2003. ISBN 8448139437.

Complementary:

- Pearce, David W.; Turner, R. Kerry. Economics of natural resources and the environment. New York [etc.]: Harvester Wheatsheaf, 1990. ISBN 0745002250.

- Pearce, David W.; Turner, R. Kerry. Economía de los recursos naturales y del medio ambiente. Madrid: Colegio de Economistas : Celeste Ediciones, 1995. ISBN 8487553567.

RESOURCES

Hyperlink:

- Departament d'Agricultura, Alimentació i Acció Rural
- Institut d'Estadística de Catalunya
- Instituto Nacional de Estadística
- Banco de España