COURSE DATA

DATA SUBJECT

Code: 33780
Name: Principals of Environmental Economics
Cycle: Undergraduate Studies
ECTS Credits: 6
Academic year: 2025-26

STUDY (S)

Degree	Center	Acad. year	Period
1318 - Degree in Geography and the Environment	Facultat de Geografia i Història	1	Second quarter

SUBJECT-MATTER

Degree	Subject-matter	Character
1318 - Degree in Geography and the Environment	Principals of Environmental Economics	BASIC

COORDINATION

SAZ SALAZAR SALVADOR DEL

SUMMARY

Once the environmental quality and sustainable use of resources became a priority from the point of view of politics (in the late 1960s), the society has been seeking the appropriate tools for the protection of the environment. Traditionally, the majority of the industrialized countries have applied the so-called direct regulatory instruments, such as standards, prohibitions, permissions and sanctions. In general, these instruments have failed in the attainment of the environmental challenges and have led high costs for the society as a whole in their aim of achieving a high degree of environmental protection.

The market system and economic instruments have been introduced in the environmental policy as a way of applying the \"polluter pays principle". Despite the complexity to implement them, it is considered that they may contribute to improve the effectiveness and efficiency of environmental policies at least as follows:

They contribute to reduce the economic costs of achieving a certain level of environmental protection as

they provide to pollutants greater flexibility to meet the requirements of pollution reduction, or allow for environmental improvements without increasing the associated economic costs.

Economic instruments can stimulate the innovation in technologies for prevention and pollution control because for economic agents, they are an economic incentive since the prevention of the generation of pollution means to pay less taxes.

Some economic instruments (such as taxes and fees) increase revenues that may be used for different purposes.

Despite their limitations in measuring the costs and benefits of environmental policies aimed to protect the environment, the economic approaches are gaining interest and popularity in the policy context. An example is the new role of the economic analysis in the water planning proposed by the Water Framework Directive.

PREVIOUS KNOWLEDGE

RELATIONSHIP TO OTHER SUBJECTS OF THE SAME DEGREE

There are no specified enrollment restrictions with other subjects of the curriculum.

OTHER REQUIREMENTS

There are not prerequisites. It welcomes that the students have studied the subject of economics in high school.

COMPETENCES / LEARNING OUTCOMES

1318 - Degree in Geography and the Environment

Be able to communicate effectively with non-experts.

Be able to learn independently and show creativity, initiative and entrepreneurship. Be able to resolve unforeseen situations.

Be able to produce statistical information. Know how to use statistical software.

Be able to work independently.

Be able to work in interdisciplinary teams.

Be acquainted with basic economic principles applied to the environment.

Be acquainted with the legal framework applied to the environment and land-use planning.

Have capacity for analysis and synthesis.

Have oral and written communication skills in one's own language and in a foreign language.

Learn about geographical history and thinking.

Learn about the time and space dimensions in the explanation of social, territorial and environmental processes.

Show commitment to the values of gender equality, interculturality, equal opportunities, universal access for people with disabilities, the culture of peace, democratic values and solidarity.

Show motivation for quality, responsibility and intellectual honesty.

DESCRIPTION OF CONTENTS

1. THEME 1.- Basic principles of the economy.

The production process: factors and outputs. Demand and supply functions. Prize and market balance. Competitive and non-competitive markets. Main macroeconomics variables.

2. THEME 2.- Economy and environment.

The circular economy: the interaction between economy and environment. The sustainable economy. The environmental problems and their classification.

3. THEME 3.- Externalities and the economics of pollution.

External effects. The direct regulation: environmental standards. The indirect regulation or economic instruments: environmental taxes, tradable permits and subsidies. The practice of environmental policy: measures to prevent climate change.

4. THEME 4.- Valuation methods of the environment quality I: Indirect methods.

The hedonic price method. The travel cost method. The replacement costs method.

5. THEME 5.- Valuation methods of the environment quality II: Direct methods.

The contingent valuation method. The conjoint analysis method. Valuation, results transfer and compensation.

6. THEME 6.- Environmental costs and benefits.

Valuation and cost benefit analysis. The problem of the discount. The discounting of the future from an individual perspective. The discounting of the future from a social perspective.

7. THEME 7.- Environmental impact of products and processes.

The environmental behaviour of the companies. Sustainable development indicators of the management in companies. Tools of environmental management in the company. The management of wastes as an environmental strategy.

8. THEME 8 .- Management of natural resources in a territorial area.

Renewable and non-renewable resources. Value of resources and pricing. An example: the management of water resources.

9. THEME 9.- Importance of water resources and their territorial distribution.

Supply and demand of resources in a territory. Conventional and non-conventional water resources: types of use. Pricing, efficiency of management and current legislation.

10. THEME 10.- Water imbalance and feasible proposals of management.

Potentiality of the different mechanism of supply and demand. Cost-benefit analysis and optimal management of available resources. Possibilities of adjustment and feasibility of actions.

WORKLOAD

PRESENCIAL ACTIVITIES

Activity	Hours
Theory	30,00
Other activities	15,00
Classroom practices	15,00
Total hours	**60,00**

NON PRESENCIAL ACTIVITIES

Activity	Hours
Attendance at other activities	0,00
Individual or group project	10,00
Independent study and work	0,00

Preparation of lessons	50,00
Preparation for assessment activities	30,00
Resolution of case studies	0,00
Total hours	**90,00**

TEACHING METHODOLOGY

In the *theoretical sessions*, the teacher will develop and explain most of the concepts contained in each of the topics that make up the theoretical part of the course. However, It is necessary notice that in these sessions is not possible explain exhaustively all aspects of each topic. It is, therefore, imperative that the students use and study regularly the recommended texts. Likewise, the notes that can be taken in the lectures may serve as a guide for the study but never as a substitute of the bibliography.

Practical sessions are twofold. On the one hand the goal is to consolidate the concepts learned in the theoretical sessions and, on the other hand, are aimed to develop in students the ability to apply their knowledge to real world and enhance its chances of reasoning and analysis. These sessions require the active participation of students through their involvement in conducting the sessions and weekly exercises.

Personal work: During the practical classes, the teacher will propose problems and exercises and will recommend the study of the correspondent unit. This content will form the subject matter being discussed in the class of the following week. For smooth running of the sessions, students must complete the exercises prior to practical class. In this way, they can express their doubts and difficulties to the teacher during the class or in tutorials.

Seminars: Complementary, a series of specific seminars to address in depth some of the issues raised in the program will be carry out. Students must make a report / summary of the contents covered in the seminar.

Tutorials: It will perform both individually and in groups. They are aimed to resolve the doubts that arise for students, both in theoretical and practical sessions.

EVALUATION

The subject will be evaluate as follow:

- Written tests consisting in one or more exams that may include both theoretical issues and practical exercises.

- Qualification of the practical activities (works, exercises and oral presentations) made ¿¿by the student throughout the course.

- Continuous assessment of each student based on regular attendance at classes and seminars, their participation and involvement in the learning process as well as their attitude during the development of different activities.

The final grade is obtained by weighting by 60 percent the result of written tests, by 25 percent the practical activities and by 15 percent the continuous assessment. It is important to note that this criterion only will be apply once the appropriate written tests will be passed.

Same conditions for the second call

REFERENCES

- Mankiw, N.G. (2007): Principios de Economía, McGraw-Hill, 4ª edición.
- Azqueta, D. (2007): Introducción a la economía ambiental, McGraw-Hill, 2º edición.
- Labandeira, X., León, C.J. y Vázquez, M.X. (2007), Economía Ambiental, Pearson, Prentice Hall, Madrid.
- Pierce, D.W. y Turner, R.K. (1995), Economía de los recursos naturales y del medio ambiente, Colegio de Economistas de Madrid, Celeste Ediciones.
- Riera, et al. (2005), Manual de Economía Ambiental y de los Recursos Naturales, Thomson Editores Spain.
- Tietenberg, T. (2002), Environmental and Natural Resource Economics, sixth edition, Addison Wesley.