

25204 - Applied economics

Syllabus Information

Academic year: 2023/24

Subject: 25204 - Applied economics

Faculty / School: 201 - Escuela Politécnica Superior

Degree: 571 - Degree in Environmental Sciences

ECTS: 6.0

Year: 2

Semester: Second Four-month period

Subject type: Basic Education

Module:

1. General information

The Applied Economics subject aims to provide students with a series of economic concepts and tools, both analytical and graphical, that allow them to understand the behaviour of individual and global economic agents in their relationship with natural resources and the environment. It should serve to learn to interpret the link between environment and economic reality according to theoretical and conceptual frameworks of economic analysis.

These approaches and objectives are aligned with some of the Sustainable Development Goals, SDGs, of the 2030 agenda <https://un.org/sustainabledevelopment/es/>. Specifically, the planned learning activities in this subject will contribute to the achievement of Goal 8 Objective 4, Goal 9 Objective 4, Goal 11 Objective 6 , Goals 12 and 13 Objective 2, and Goal 17 Objective 17.

2. Learning results

- To delimit the scope of economics and define the basic rules of market functioning. To explain the characteristics of competitive and non-competitive markets.
- To differentiate, from a theoretical and empirical perspective, the interaction between environment and economy and its associated problems . To interpret the way in which bidders' and demanders' behaviours can affect the environment.
- To explain how individual lifestyle choices influence social, economic and environmental development in line with the concept of sustainable economy and the targets encompassed by goal 12 of the SDGs of the 2030 Agenda (in particular with Objectives 12.5 and 12.6). And with Objective 8.1 of SDG 8.
- To differentiate production and consumption patterns and value chains, and the interrelationship between production and consumption (supply and demand, toxic substances, CO2 emissions, waste generation, health, working conditions, poverty, etc.). . (SDGs 8 and 9).
- To argue which are the necessary mechanisms to promote sustained, inclusive and sustainable economic growth , developed in the global agenda for sustainable development 2030 (SDG 8). As well as the dilemmas/ trade-offs and the systemic changes needed to achieve them in the different economic systems.
- To apply the tools of economics to identify and economically value the costs or environmental externalities. To be able to select the most appropriate public and private intervention instruments (environmental taxation, regulations, financial instruments for pollution control, landfill fees , ecotaxes, ...), in line with SDG 12, Objective 12.c.
- To argue the functions of the Public Sector (local, regional, national and international) and the tools used to regulate markets, business and consumer activity. Specifically, to learn about the fundamental role of the Public Sector as defender and protector of the environment.
- To rigorously define the basic concepts related to the valuation of environmental benefits and costs (contingent valuation , hedonic prices, CBA, revealed preferences, travel cost...) for the financial evaluation and the technical-environmental feasibility studies of public and private investments. All of this is framed within the framework of SDG 17, Partnerships to achieve the objectives and their Objective 17.17 Encourage and promote effective partnerships in the public, public-private, and civil society spheres
- To reproduce basic knowledge of environmental economics (use and non-use values of the environment, renewable and non-renewable resources, ...) and be able to recognize the advantages and disadvantages of ecological economics as a tool for evaluating and monitoring sustainability objectives in line with some of the goals of the -SDGs, 11, Sustainable Cities and Communities, and 12, Responsible Production and Consumption of the 2030 Agenda.

3. Syllabus

PART I. INTRODUCTION TO ECONOMICS

- Topic 1. The conceptual framework of the economy (Agenda 2030)
- Topic 2. The market. Supply and demand (SDGs 8, 9, 11 and 12)
- Topic 3. Perfect competition and imperfect competition (SDGs 8 and 9)

PART II. ENVIRONMENTAL ECONOMICS

- Topic 4. Market failures. Externalities, public goods and common resources (SDGs 13 and 17)
- Topic 5. Economic growth and environment (SDGs 6, 8, 9 and 12)
- Topic 6. Environmental assessment. Revealed preference and stated preference methods (SDGs 3, 6 and 7)
- Topic 7. Cost-benefit analysis (CBA) and cost-efficiency analysis (CEA) (SDGs 3, 15 and 17)
- Topic 8. Evaluation of environmental policies. Efficiency and equity (SDG 17)

4. Academic activities

Master classes: 30 hours

Theoretical-practical sessions in which the contents of the subject are explained

Practical exercises: 30 hours

Explanation and resolution of practical exercises

Personal study and preparation of practical assignments: 84 hours

Assessment tests. 6 hours

5. Assessment system

The subject offers the possibility of continuous evaluation. Therefore, in the **first call** the student can choose to take it or opt for the **global test**.

Continuous evaluation consists of the following evaluation activities:

- **Test 1:** consisting of 2 written exams according to the syllabus of the subject. (60% of the grade, minimum 5 out of 10). The exams will consist of multiple choice questions and/or short answer questions and development questions on the theoretical and practical syllabus.
- **Test 2:** individual delivery of the practical exercises proposed by the teacher in each topic (40 % of the grade, minimum 5 out of 10)

The grade obtained in the evaluation of the activities carried out during the subject will be kept for the first and second call.

In relation to the different goals of the SDGs, in the practices of topics 2, 3, 4 and 5, which constitute 20% each of the total evaluation of the subject practices, the students will be evaluated on how they would implement the Objectives 8.1, 9.4, 12.c. and 13.a with different environmental fiscal policies.

This implies that approximately these activities represent between 24% and 32% of the final grade, depending on whether the student uses the global evaluation system or the continuous.

Global evaluation, based exclusively on a final global test that consists of the following activities :

- **A written test** in accordance with the official exam schedules consisting of several theoretical-practical questions on the content of the subject (70% of the grade, minimum 5 out of 10). The exams will consist of multiple choice and/or short answer questions and development questions on the theoretical and practical syllabus.
- **Practical exercises** (30% of the grade, minimum 5 out of 10) to be handed in on the same day as the final written exam.

The evaluation criteria are: the student's objective knowledge; the adequacy of the question-answer, the clarity and precision of the answers; the following of the graphical guidelines and methods proposed in the theoretical and practical classes; the appropriateness of the arguments used, the capacity of synthesis and analysis and the clarity and order of the written expression.

The detailed assessment system will be explained in the presentation of the subject.

Success rates

2018/20	2019/20	2020/21	2020/21
93.55%	100.00%	97.14%	100%