



COURSE DATA

Data Subject

Code	36501
Name	Competitive Markets and Pricing
Cycle	Grade
ECTS Credits	6.0
Academic year	2023 - 2024

Study (s)

Degree	Center	Acad. year	Period
1332 - Degree in Business Intelligence and Analytics	Faculty of Economics	1	Second term

Subject-matter

Degree	Subject-matter	Character
1332 - Degree in Business Intelligence and Analytics	4 - Precios y Mercado Competitivo	Basic Training

Coordination

Name	Department
ALVENTOSA BAÑOS, ADRIANA	10 - Economic Analysis

SUMMARY

This course introduces modelling methods such as **game theory** in order to understand decision making of individuals and organisations in an environment of strategic interdependence, i.e. when the consequences of decisions depend on (and have effects on) the decisions of other individuals or groups. This tool will be applied to the study of the **fundamentals of Economics** understood as the interaction of markets and the implications on prices. Situations that will be approached will be interactions between employers and employees, owners and managers, managers and workers, sellers and buyers, etc. In all these situations, game theory provides an analysis tool in order to make predictions about how to behave optimally in these contexts.

In particular, the course is structured in 8 topics approaching issues such as *capitalism, democracy, inequality, fairness, efficiency, institutions, work, wellbeing, institutions, power, markets for goods and services, unemployment...*



Note: This course is taught in **ENGLISH**.

PREVIOUS KNOWLEDGE

Relationship to other subjects of the same degree

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

Other requirements

No particular mathematical requirement is needed to take this course. One of the advantages of modelling is that it deals directly with the real world, analysing concepts such as: conflicts, strategic cooperation, threats, information, beliefs, commitments or reputation from a formal and empirical point of view.

OUTCOMES

1332 - Degree in Business Intelligence and Analytics

- Acquire basic training that can be used to learn new methods and technologies and to adapt to new situations in academic and professional areas.
- Be able to produce models, calculations and reports, and to plan tasks in the specific field of business intelligence and analytics.
- Be able to access and manage information in different formats for subsequent analysis in order to obtain knowledge through data.
- Know and know how to properly use the appropriate quantitative and qualitative methods to reason analytically, evaluate results and predict economic and financial magnitudes.
- Demonstrate skills for analysis and synthesis.
- Be able to analyse and search for information from diverse sources.
- Be able to work in a team demonstrating commitment to quality, ethics, equality and social responsibility.
- Know the principles of economic analysis and its application to the diagnosis and resolution of problems based on data analysis.
- Understand the keys to the operation of the market and the effects of its different structures through studies based on the collection and analysis of data.



LEARNING OUTCOMES

At the end of the course, students should:

- Know the evolution of **capitalism** as an economic system and **democracy** as a political system over the last centuries and evaluate the impact of these on economic variables such as economic growth, wages, working hours, inequality, employment...
- Know the concept and understand the basis and functioning of **markets**.
- Know how to identify **strategic conflicts** and know how to use basic strategic principles to make predictions about the behaviour of the economic agents involved.
- Be able to identify how the different **institutions** and/or **market structures** affect the **strategic decisions** of the economic agents and how the strategic decisions of the economic agents affect the institutions and/or market structures.
- Be able to contrast strategic predictions with **empirical results** obtained from observation. Identify the factors that lead to differences in behaviour and deviations from strategic predictions.
- Know how to design **research** and its application to the economic environment: posing a research question, starting hypothesis, description of the methodology to be used, data collection and analysis, obtaining results.

DESCRIPTION OF CONTENTS

1. Capitalism and democracy: Affluence, inequality, and the environment

- 1.1. Affluence and income inequality
- 1.2. Economic growth
- 1.3. The permanent technological revolution: Engine of growth
- 1.4. The capitalist revolution
- 1.5. Varieties of capitalism: Institutions and growth
- 1.6. Varieties of capitalism: Growth and stagnation
- 1.7. Capitalism, inequality and democracy
- 1.8. Capitalism, growth and environmental sustainability

2. Social interactions and economic outcomes

- 2.1. Self-interest and social dilemmas
- 2.2. Social interactions and public policies
- 2.3. When self-interest works: The invisible hand
- 2.4. When self-interest doesn't work: The prisoners' dilemma
- 2.5. Beyond self-interest: Caring for the rest
- 2.6. Free-riding and altruism
- 2.7. Free riding and the provision of public goods
- 2.8. Predicting economic outcomes: A Nash equilibrium
- 2.9. Which Nash equilibrium? Conflicts of interest and bargaining
- 2.10. Conflicts of interest in the global climate change problem



3. Public policy for fairness and efficiency

- 3.1. Goals of public policy
- 3.2. Fairness and efficiency in the ultimatum game
- 3.3. Evaluating institutions and results. Is it efficient?
- 3.4. Evaluating institutions and results. Is it fair?
- 3.5. Why is inequality bad?
- 3.6. Implementing public policies
- 3.7. Unintended consequences: Policies affect preferences
- 3.8. Unintended consequences of a redistributive tax
- 3.9. How can we find out if a policy will work?

4. Work, wellbeing, and scarcity

- 4.1. Basic concepts: Prices, costs and incentives
- 4.2. Decision making when there are trade offs
- 4.3. Preferences
- 4.4. Decision making, trade offs and opportunity costs
- 4.5. The feasible set
- 4.6. Decision making and scarcity
- 4.7. Hours of work and economic growth
- 4.8. Explaining changes in working hours: Differences over time
- 4.9. Explaining changes in working hours: Differences between countries
- 4.10. Is this a good model?

5. Institutions, power and inequality

- 5.1. Institutions: The rules of the game
- 5.2. Production and distribution: Using a model
- 5.3. The Rule of Force: Bernardo appears and has unlimited power over Ana
- 5.4. Property rights and the rule of law
- 5.5. Efficiency and conflicts over the distribution of the surplus
- 5.6. Property rights, the rule of law and the right to vote
- 5.7. The lessons from Ana and Bernardo's story
- 5.8. Measuring economic inequality
- 5.9. Comparing inequality across the world

6. The firm: Employees, managers and owners

- 6.1. Firms, markets and division of labour
- 6.2. Power relations within the firm
- 6.3. Other people's money: the separation of ownership and control
- 6.4. Other people's labour
- 6.5. Why do a good day's work? Employment rents
- 6.6. Work and wages: The labour discipline model



- 6.7. Wages, effort and profits in the labour discipline model
6.8. Why do employers pay employment rents to their workers?

7. The firm: Markets for goods and services

- 7.1. Economies of scale and the cost advantage of large-scale production
7.2. The demand curve and willingness to pay
7.3. Choosing the price that generates greater profits
7.4. Gains from trade
7.5. Price-setting, market power and public policy
7.6. Buying and selling: Demand and supply in a competitive market
7.7. Efficiency in the competitive market

8. The labour market: Wages, profits and unemployment

- 8.1. Measuring the economy: Employment and unemployment
8.2. The wage-setting curve: Employment and real wages
8.3. The price-setting curve: Wages and profits in the aggregate economy

WORKLOAD

ACTIVITY	Hours	% To be attended
Theory classes	30,00	100
Computer classroom practice	30,00	100
Development of group work	25,00	0
Study and independent work	25,00	0
Preparation of evaluation activities	40,00	0
TOTAL	150,00	

TEACHING METHODOLOGY

The development of the course is fundamentally structured around theoretical and practical lectures. Depending on the type of lecture (theoretical or practical), one didactic method or another will be chosen.

In the **theory lectures**, the instructor will highlight the fundamental aspects of each subject and will guide the course through the basic and complementary bibliography, which must be consulted in order to complete and deepen the subject. The predominant teaching method in theory classes will be the participative master class. Gamification will be applied in the classroom to review the concepts learned during the lectures.

In the **practical lectures**, theoretical-practical and analytical exercises will be solved and research work will be proposed to be carried out in groups. In these tasks, students will be provided with data and will have to propose an original research question to be solved, present and justify the initial hypotheses, analyse the data provided and obtain results that provide with an answer to the proposed research



question. They will also work on data collection and the processing of small databases.

EVALUATION

The assessment of the subject is based on a set of continuous evaluation activities and a final exam. The total evaluation is broken down as follows: **30%** of the overall grade corresponds to the **continuous evaluation tasks** and **70%** of the overall mark corresponds to the **final exam**. The final exam is compulsory and passing it is a prerequisite for passing the course; it is considered passed when the mark is equal to or higher than 3.5 points out of 7.

Continuous evaluation will consist of partial evaluation tests, group work and active participation in the classroom.

The final grade will be obtained as the sum of the final exam mark plus the continuous evaluation mark.

The course will be considered passed if the student obtains 5 points out of 10 in the sum of the final exam and the continuous evaluation.

In the first call, if the continuous evaluation tasks are not carried out, the student will only be able to obtain the points from the final exam (7 maximum), and would need to obtain a 5 out of 7 in the final exam to pass the course. In the case that the final exam does not exceed 3.5 points and the student cannot pass the course, the final score that will be included in the final grade will be formed by adding the points of the final exam with those of the continuous evaluation up to a maximum of 4.5 points, and the overall grade will be a fail.

It is considered that **50% of the continuous assessment is not recoverable** (group work and active participation in the classroom).

This means that in the **second call**, the student has two options:

- (i) *waive the continuous evaluation score* (indicating this in the exam) and the final exam will be marked out of a maximum of 8.5 points (5 points being necessary to pass the course); or
- (ii) *maintain the continuous evaluation score* and the final exam will be graded out of a maximum of 7 points.

Link to the University's Assessment Regulations:

https://www.uv.es/graus/normatives/2017_108_Reglament_avaluacio_qualificacio.pdf.

REFERENCES



Basic

- Economy, Society, and Public Policy
<https://www.core-econ.org/espp/book/text/0-3-contents.html>
- Olcina, G., Calabuig, V. y Rodríguez-Lara, I., Introducción a la Teoría de Juegos y la Conducta Estratégica. 2ª Ed. Madrid. Pearson 2013.

Additional

- Gardner, R., Juegos para empresarios y economistas. Antoni Bosch Editor. 1999.
- Dixit, A. y Skeath, S., Games of Strategy. Norton. 2004