COURSE GUIDE

Microeconomics 3 (226112A)

Approval date: 24/06/2025

Grado (Bachelor's Degree)	Grado en Economía (Bilingüe)	Branch	Social and Legal Sciences
Module	Análisis Económico	Subject	Microeconomía III

Year of study	2º	Semester	2º	ECTS Credits	6	Course type	Compulsory course

PREREQUISITES AND RECOMMENDATIONS

To have passed Microeconomics I and Microeconomics II
If AI tools are used to develop the course, students must use them ethically and responsibly. The recommendations contained in the document 'Recommendations for the use of artificial intelligence at the UGR' published at this location must be followed:
https://ceprud.ugr.es/formacion-tic/inteligencia-artificial/recomendaciones-ia#contenido0

BRIEF DESCRIPTION OF COURSE CONTENT (According to the programme's verification report)

- Consumer Theory
- Producer Theory
- General Equilibrium

SKILLS

GENERAL SKILLS

- CG03 - Ability to analyse and summarise.
- CG05 - Oral and written communication skills in Spanish.
- CG08 - Problem-solving skills.
- CG11 - Ability to work in an interdisciplinary team.
- CG12 - Ability to work in an international context.
- CG15 - Ability to communicate with other areas of knowledge.
- CG16 - Ability to engage in critical and self-critical reasoning.
- CG17 - Ability to learn and work autonomously.
- CG24 - Ability to apply knowledge to practice.
- CG25 - Ability to search for information and research.
- CG26 - Ability to design and manage projects.

SUBJECT-SPECIFIC SKILLS

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- CE17 - Identify and anticipate economic problems relevant to the general allocation of resources in the public and private sector.
- CE22 - Bring rationality to the analysis and description of any aspect of economic reality.
- CE23 - Evaluate the consequences of alternative courses of action and select the best ones given the objectives.
- CE24 - Understand economic institutions as the result and application of theoretical or formal representations of how the economy works.
- CE30 - Issue advisory reports on specific situations in the economy (international, national or regional) or its sectors.
- CE32 - Communicate fluently in an environment and work in a team.
- CE38 - Derive from the data relevant information not accessible to non-professionals.
- CE39 - Regularly use Information and Communication Technologies (ICTs) in their professional activities.
- CE40 - Read and communicate professionally in more than one language, especially in English.
- CE41 - Apply professional criteria based on the use of theoretical instruments to the analysis of problems.
- CE42 - Ethical commitment at work. Ability to work in a team. Critical and self-critical reasoning. Work in an international context.
- CE43 - Motivation for quality.
- CE59 - Contribute to the proper management of resource allocation in both the private and public sectors.
- CE68 - Understand the main microeconomic and macroeconomic models.
- CE69 - Understand the functioning of imperfectly competitive markets.
- CE70 - Understand the main models of industrial economy.
- CE71 - Understand the Game Theory.

TRANSFERABLE SKILLS

- CT01 - Through the knowledge and application of concepts learnt in the Bachelor's Degree (Grado), be able to identify and anticipate economic problems relevant to the allocation of resources, both in the public and private sectors.
- CT02 - Know, understand and apply the different economic models to provide rationality to the analysis and description of any aspect of reality, and be able to know the economic choice criteria of the different agents that make up society.
- CT03 - Learn to communicate fluently in an environment and to work in a team, both in a national and an international context.

LEARNING OUTCOMES

- The student will be able to understand and model the strategic behaviour of the different agents related to an Economy/Society (consumers, firms, politicians,...)

PLANNED LEARNING ACTIVITIES

THEORY SYLLABUS

CHAPTER 1: STATIC GAMES WITH COMPLETE INFORMATION

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1. Elements of a Game and normal-form representation
2. Basic Games
3. Solution concepts
    - Iterative Elimination of strictly dominated strategies.
    - Nash equilibrium
    - Mixed strategies and ExistenIce of Nash Equilibrium

CHAPTER 2: DYNAMIC GAMES WITH COMPLETE INFORMATION

1. Introduction
2. Externsive-form representation
3. Subgame Perfect Nash Equilibrium
4. Repeated Games

CHAPTER 3: STATIC GAMES WITH INCOMPLETE INFORMATION

1. Introduction
2. Normal-form representation and Bayesian Nash equilibrium
3. Extensive-form representation of a Bayesian Game

CHAPTER 4: DYNAMIC GAMES WITH INCOMPLETE INFORMATION

1. Signalling Games
2. Perfect Bayesian Nash Equilibrium
3. Applications

CHAPTER 5: GENERAL EQUILIBRIUM AND EFFICIENCY

1. General equilibrium
2. Efficiency

PRACTICAL SYLLABUS

- Practice 1. Exercises on Static games with complete information.
- Practice 2. Exercises on Dynamic games with complete information.
- Practice 3. Exercises on Static games with incomplete information.
- Practice 4. Exercises on Dynamic games with incomplete information.
- Presentation of works prepared by students

RECOMMENDED READING

ESSENTIAL READING

- Gibbons, R. (2003): Game Theory for Applied Economists. Princeton University Press

COMPLEMENTARY READING

- Béal, S y Gabuthy, Y. (2018): Théorie des jeux coopératifs et non cooperatifs. Application aux sciences sociales. De Boeck Supérieur.
- Binmore, K. (1994): Fun and Games. McGraw Hill.

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- Dixit, A. y Nalebuff, B. (1993): Thinking strategically. Norton Paperback.
- Ferreira J.L. (2019): Game Theory: An Applied Introduction. Red Globe Press.
- Gardner, R. (1996): Games for Business and Economics. Willey
- Osborne, M. J. (2004): An Introduction to Game Theory. Oxford: Oxford University Press.
- Osborne, M.J and Rubistein A. (1994): A course in Game Theory. MIT Press
- Vega Redondo, F. (2022): Economics and the Theory of Games. Cambridge University Press.

RECOMMENDED LEARNING RESOURCES/TOOLS

https://www.selcukozyurt.com/home/teaching/game-theory

TEACHING METHODS

- MD01 - Face-to-face teaching in the classroom
- MD02 - Individual work by the student; retrieval, consultation and processing of information; problem solving and practical case studies; and completion of assignments and presentations
- MD03 - Individual and/or group tutoring and evaluation

ASSESSMENT METHODS (Instruments, criteria and percentages)

ORDINARY EXAMINATION DIET

According to the Rules of assessment and grading of the students of the University of Granada (latest changes approved by the Governing Board of 26th October 2016), the assessment of students' academic performance will reflect public, objective and impartial criteria, and will preferably be continuous.
The continuous evaluation will consist of the following tasks:
Final exam: 70%
Group Assessment: 20%
Student participation: 10%
Observations:

- **To pass the course, it is required to get a grade higher or equal to 4 (out of 10) in the final exam.** In that case, the final grade for the course will be calculated as the weighted sum of the three components of the evaluation [0.7*exam mark + 0.2*group assessment + 0.1*student participation]. Otherwise, the global mark will be "non passed", with the numeric grade resulting from the minimum between 3.5 and the weighted sum of the three assessment components.
- In all the multiple choice questionnaires, wrong answers will be penalized.

EXTRAORDINARY EXAMINATION DIET

- Extraordinary assessment will consist of a unique exam (multiple choice questionnaire)
  - The grade of the extraordinary assessment will be the mark obtained in this exam.
  - Wrong answers will be penalized.

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SINGLE FINAL ASSESSMENT (evaluación única final)

Article 8 of the current Rules for Assessment provides for the taking of a single final assessment, which students may apply for in the first two weeks of teaching of the subject (or two weeks following change of enrolment). Application is to be made through the electronic system, citing and accrediting the reasons for not being able to undergo the system of continuous assessment (reasons of employment, health, disability or any other correctly justified cause), with the understanding that this assessment is undertaken in a single academic act in order to accredit that the student has acquired in full the competencies described.

- It will consist of a unique exam (multiple choice questionnaire)
  - Wrong answers will be penalized.

ADDITIONAL INFORMATION

The Department of Economic Theory and History, in accordance with the Regulations for the attention to students with disabilities and other specific educational support needs (approved by the Governing Board of the University of Granada on 20th September 2016) will promote the right to education under conditions of equal opportunities to students with disabilities and other specific educational support needs. The necessary assistance actions will be established to achieve their full and effective inclusion, guaranteeing their right to inclusive education, in accordance with the principles of non-discrimination, equal opportunities and universal accessibility, so that they can achieve the maximum possible development of their personal and, in any case, the objectives established in general for all students.
The information in this guide may be modified due to supervening circumstances, changes in regulations or new guidelines that may be given by the health authorities, the University, or the Faculty of Economics and Business.
Información de interés para estudiantado con discapacidad y/o Necesidades Específicas de Apoyo Educativo (NEAE): Gestión de servicios y apoyos (https://ve.ugr.es/servicios/atencion-social/estudiantes-con-discapacidad).

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