**COURSE GUIDE** 

# Microeconomics 3 (239112A)

**Approval date: 26/06/2023** 

Grado (Bachelor's Degree)	Grado en Economía				Branch	1	Social and Legal Sciences		
Module Análisis Económico				Subjec	t	Microeconomía III			
Year of study 2	0	Semester	2 <sup>0</sup>	ECTS Credits	6	Cou tyj		Compulsory course	

# PREREQUISITES AND RECOMMENDATIONS

To have passed Microeconomics I and Microeconomics II

# 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

- 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.



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- 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

- CTo1 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

- 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

- Binmore, K. (1994): Fun and Games. McGraw Hill.
- 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



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• Vega Redondo, F. (2022): Economics and the Theory of Games. Cambridge University Press.

# **TEACHING METHODS**

- MD01 Docencia presencial en el aula
- MD02 Estudio individualizado del alumno, búsqueda, consulta y tratamiento de información, resolución de problemas y casos prácticos, y realización de trabajos y exposiciones.
- MD03 Tutorías individuales y/o colectivas y evaluación

# 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 weighted sum of the following tasks:

A work in group and its presentation 30% Final exam (multiple choice questionnaire) 70%

- Observations:
  - To pass the course it is required to pass the final exam (to obtain 5 points over 10). Otherwise, the overall mark of the subject will be a failing grade, with a numerical mark obtained as the minimum between 3.5 and the weighted sum of the two components of the evaluation [0.3\*mark of the work + 0.7\*mark of the final exam].
  - 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.

### 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.