



## Teaching Guide

Identifying Data				2024/25
Subject (*)	European Industrial Organisation	Code	611G01033	
Study programme	Grao en Economía			
Descriptors				
Cycle	Period	Year	Type	Credits
Graduate	1st four-month period	Fourth	Obligatory	6
Language	Spanish			
Teaching method	Face-to-face			
Prerequisites				
Department	Economía			
Coordinador	Calo Blanco, Aitor	E-mail	aitor.calo@udc.es	
Lecturers	Calo Blanco, Aitor Varela Candamio, Laura	E-mail	aitor.calo@udc.es laura.varela.candamio@udc.es	
Web				
General description	Theoretical basis for the study of the interactions between the economic agents in different situations of contracts, organizations and markets through Microeconomics and the theory of games at intermediate level. We study compatible schemes of incentives and models of asymmetric information. Analysis of anticompetitive and monopolistic conduct in the industry.			

## Study programme competences / results

Code	Study programme competences / results
A1	CE1- Contribuír á boa xestión da asignación de recursos tanto no ámbito privado como no público.
A2	CE2-Identificar e anticipar problemas económicos relevantes en relación coa asignación de recursos en xeral, tanto no ámbito privado como no público.
A3	CE3-Aportar racionalidade á análise e á descripción de calquera aspecto da realidade económica.
A4	CE4-Avaliar consecuencias e distintas alternativas de acción e seleccionar as mellores, dados os obxectivos.
A5	CE5-Emitir informes de asesoramento sobre situación concretas da economía (internacional, nacional ou rexional) ou de sectores da mesma.
A6	CE6-Redactar proxectos de xestión económica a nivel internacional, nacional ou rexional. Integrarse na xestión empresarial.
A7	CE7-Identificar as fontes de información económica relevante e o seu contido.
A8	CE8-Entender as institucións económicas como resultado e aplicación de representacións teóricas ou formais acerca de cómo funciona a economía.
A9	CE9-Derivar dos datos información relevante imposible de recoñecer por non profesionais.
A10	CE10-Usar habitualmente a tecnoloxía da información e as comunicación en todo a seu desempeño profesional.
A11	CE11Leer e comunicarse no ámbito profesional en máis dun idioma, en especial en inglés.
A12	CE12-Aplicar á análise dos problemas criterios profesionais baseados no manexo de instrumentos técnicos.
A13	CE13-Comunicarse con fluidez no seu contorno e traballar en equipo.
B1	CB1 - Que os estudantes demostren posuir e comprender coñecementos nun área de estudo que parte da base da educación secundaria xeral, e que soe encontrar nun nivel que, aínda que se apoia en libros de texto avanzados, inclúe tamén algúns aspectos que implican coñecementos procedentes da vangarda do seu campo de estudo.
B2	CB2 - Que os estudantes saiban aplicar os seus coñecementos ó seu traballo ou vocación dun xeito profesional e posúan as competencias que se demostran por medio da elaboración e defensa de argumentos e a resolución de problemas dentro da súa entona de traballo.
B3	CB3 - Que os estudantes teñan a capacidade de reunir e interpretar datos relevantes (normalmente dentro da súa área de estudo) para emitir xuízos que inclúan unha reflexión sobre temas relevantes de índole social, científica ou ética
B4	CB4 - Que os estudantes poidan transmitir información, ideas, problemas e solucións a un público tanto especializado como non especializado
B5	CB5 - Que os estudantes desenvolvesen aquelas habilidades de aprendizaxe necesarias para emprender estudos posteriores cun alto grao de autonomía



B6	CG1- Que os estudantes formados se convertan en profesionais capaces de analizar, reflexionar e intervir sobre os diferentes elementos que constitúen un sistema económico
B7	CG2 - Que os estudantes coñezan o funcionamento e as consecuencias dos sistemas económicos, as distintas alternativas de asignación de recursos, acumulación de riqueza e distribución da renda e estean en condicións de contribuír ao seu bo funcionamento e mellora
B8	CG3 -Que os estudantes sexan capaces de identificar e anticipar os problemas económicos relevantes, identificar alternativas de resolución, seleccionar as máis axeitadas e avaliar os resultados aos que conduce.
B9	CG4 -Que os estudantes respecten os dereitos fundamentais e de igualdade de oportunidades, non discriminación e accesibilidade universal das persoas con minusvalidez.
B10	
C1	CT1-Expresarse correctamente, tanto de forma oral coma escrita, nas linguas oficiais da comunidade autónoma.
C2	Dominar a expresión e a comprensión de forma oral e escrita dun idioma estranxeiro.
C3	Utilizar as ferramentas básicas das tecnoloxías da información e as comunicacións (TIC) necesarias para o exercicio da súa profesión e para a aprendizaxe ao longo da súa vida.
C4	CT2-Desenvolverse para o exercicio dunha cidadanía aberta, culta, crítica, comprometida, democrática e solidaria, capaz de analizar a realidade, diagnosticar problemas, formular e implantar solucións baseadas no coñecemento e orientadas ao ben común.
C5	CT3-Entender a importancia da cultura emprendedora e coñecer os medios ao alcance das persoas emprendedoras.
C6	CT4-Valorar criticamente o coñecemento, a tecnoloxía e a información dispoñible para resolver os problemas cos que deben afrontarse.
C7	CT5-Asumir como profesional e cidadán a importancia da aprendizaxe ao longo da vida.
C8	CT6-Valorar a importancia que ten a investigación, a innovación e o desenvolvemento tecnolóxico no avance socioeconómico e cultural da sociedade.

Learning outcomes			
Learning outcomes	Study programme competences / results		
To know how to analyze the degree of competitive rivalry of the sectors and their implications for the management of the value chain	A1 A2 A6 A10 A12	B1 B2 B6	C2 C3 C5 C8
To know how to work in a team and collaboratively	A4 A7	B3 B4 B5 B10	C3 C6
To convey the values and effort and work and encourage personal initiative	A11 A13	B5 B6 B7 B8 B9	C1 C2 C3 C4 C5 C6 C7 C8
To know how to identify and analyze the main competitive forces of the different sectors based on relevant economic information sources	A3 A5 A7 A8 A9	B4	C3

Contents	
Topic	Sub-topic



CHAPTER 1: INTRODUCTION TO GAME THEORY	<ul style="list-style-type: none"> <li>? The problem of interdependence between decision-making agents, and the conditional optimization decision.</li> <li>? Non-cooperative versus cooperative games</li> <li>? Types of non-cooperative games according to the nature of the interaction (static, dynamic or repeated), as well as the information available (perfect/imperfect or complete/incomplete).</li> <li>? Formal definition and representation of a game in normal and extensive form.</li> </ul>
CHAPTER 2: NASH EQUILIBRIUM FOR NON-COOPERATIVE GAMES	<ul style="list-style-type: none"> <li>? Best response correspondence. Dominant strategies.</li> <li>? The Nash equilibrium. Existence of Nash equilibrium. Interpretation and efficiency: the prisoner's dilemma. Other resolution concepts: the maximim.</li> <li>? Representative examples.</li> <li>? Equilibria with continuous functions of best response.</li> <li>? Oligopolies with complete information in action: Cournot; Bertrand.</li> </ul>
CHAPTER 3: GAMES IN STAGES. LEADERSHIP AND STRATEGIC ADVANTAGES FOR ENTRY.	<ul style="list-style-type: none"> <li>? Definition of extensive games with perfect or imperfect information.</li> <li>? Subgame perfect equilibrium. Backward induction and credible threats. Refinements of the Nash equilibrium.</li> <li>? Leadership in oligopolies: Stackelbert in quantities and prices.</li> <li>? Other models of leadership: reinterpretation in terms of capacity and strategic advantages of established companies.</li> <li>? Barriers to entry and entry deterrence. The limit price strategy.</li> </ul>
CHAPTER 4: PRODUCT DIFFERENTIATION IN STATIC AND DYNAMIC GAMES	<ul style="list-style-type: none"> <li>? Horizontal differentiation. Hotelling's model.</li> <li>? Vertical differentiation.</li> <li>? Advertising and related marketing strategies. Packaging of products and services.</li> </ul>
CHAPTER 5: EQUILIBRIUM IN GAMES WITH INCOMPLETE INFORMATION	<ul style="list-style-type: none"> <li>? Introduction and examples.</li> <li>? Characterization of a Bayesian game. Bayesian equilibrium.</li> <li>? Oligopolies with incomplete information in action: Cournot and Bertrand.</li> </ul>
CHAPTER 6: REPEATED GAMES	<ul style="list-style-type: none"> <li>? Basic concepts and examples.</li> <li>? Paradoxes in unique equilibrium games with a finite and certain horizon: prisoners' dilemma and warehouse chain.</li> <li>? Games with an infinite or uncertain horizon: trigger and retaliation strategies.</li> <li>? Multiple equilibria and Folk theorem.</li> </ul>
CHAPTER 7: COOPERATIVE GAMES. CARTELS AND COLLUSION IN OLIGOPOLIES	<ul style="list-style-type: none"> <li>? Cooperative games. Applications</li> <li>? Collusion in oligopolies: solutions in quantities and prices, and perfect Pareto equilibria.</li> <li>? Information mechanisms and collusion between oligopolists: discussion of stability.</li> <li>? Different penalty strategies and credibility strategies.</li> <li>? On cartels and the possibilities of antitrust policy.</li> </ul>
CHAPTER 8: EXTENSIONS	<ul style="list-style-type: none"> <li>? Network economies and digital platforms</li> <li>? Intellectual property</li> </ul>

### Planning

Methodologies / tests	Competencies / Results	Teaching hours (in-person & virtual)	Student's personal work hours	Total hours
Collaborative learning	A3 A4 A5 A7 A11 A12 A13 B4 B5 C2 C4 C7 C8	12	10	22
Guest lecture / keynote speech	A1 A2 A4 A8 B1 B6 B7 B8 B9 C3 C5 C6	26	52	78
Case study	A6 A9 A10 B2 B3 C1	5	30	35



Aprendizaxe servizo	A1 A2 A3 A13 B2 B3 B4 B5 B6 B7 B8 C1 C4 C8	5	0	5
Mixed objective/subjective test	A2 A6 A12 B4 B10	5	0	5
Personalized attention		5	0	5

(\*)The information in the planning table is for guidance only and does not take into account the heterogeneity of the students.

Methodologies	
Methodologies	Description
Collaborative learning	Guided teaching-learning procedures (overseen in person and/or using ICT methods) based on organisation of class into small groups in which students work together to solve tasks assigned by teacher, with aim of optimising their learning experience and that of other members of group
Guest lecture / keynote speech	Oral presentation (using audiovisual material and student interaction) designed to transmit knowledge and encourage learning
Case study	Teaching-learning method in which students are presented with a specific set of real-life circumstances and a problem (?case?) which they must attempt to understand, assess and solve as a group through a process of discussion. Students should be able to analyse a series of facts relating to a particular area of knowledge or activity, and arrive at a rational conclusion via a process of discussion within small work groups  In particular, the group work will be carried out (individual or in group) activities in relation to one of the themes of the program. The steps to follow are: subject selection, documentation, general evaluation, periodic sessions with the teacher for follow-up, preparation of the presentation and presentation in the classroom.
Aprendizaxe servizo	Methodology that combines community service with learning in a single project, in which the student body is trained working on real needs of their environment in order to improve it. In this subject, students can develop activities within the project: &quot;Economy with science and conscience: promoting sustainable development&quot;
Mixed objective/subjective test	Mixed test consisting of essay-type and objective test questions. Essay section consists of open (extended answer) questions; objective test may contain multiple-choice, ordering and sequencing, short answer, binary, completion and/or multiple-matching questions.

Personalized attention	
Methodologies	Description
Case study Collaborative learning Aprendizaxe servizo	Personalized attention in small group tutorials and individual tutorials, especially in relation to assignments and other activities planned in the classroom or in Moodle or TEAMS.  The Small Group Tutorials will be virtual, as well as the individual and group ones, preferably and will be divided into 2 sessions of 2 hours, and it is expected that their programming will take place around weeks 7 and 13 of the semester

Assessment			
Methodologies	Competencies / Results	Description	Qualification
Case study	A6 A9 A10 B2 B3 C1	It is part of the continuous assessment developed through collaborative learning achieved in classrooms and resulting in the completion of a series of case studies throughout the course.  Alternatively, or as complementary activities, this continuous evaluation can be evaluated by performing a MOOC or a service-learning project.	30



Mixed objective/subjective test	A2 A6 A12 B4 B10	Final exam: Mixed test that may integrate essay-type questions and objective test-type questions. Essay section consists of open (extended answer) questions. Objective test may contain multiple-choice, ordering and sequencing, short answer, binary, completion and/or multiple-matching questions. Students must obtain a minimum of 5 points out of 10. This test will take place on the date established in the official academic calendar.	70
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### Assessment comments

The evaluation criteria are as follows

#### A) EVALUATION REGULATIONS:

1. Evaluation conditions: It is forbidden to access the exam room with any device that allows communication with the outside and/or storage of information, except in the case of online exams or so indicated by the teaching team.
2. Identification of the student: The student must bring and show his/her ID card or passport the day of the exam in accordance with current regulations.

#### B) SPECIFIC EVALUATIONS:

1. Students that did not show up (in Spanish, "No presentado" grading): Corresponds to the student, when he/she only participates in evaluation activities weighted less than 20% on the final grade, regardless of the achieved grade.
2. Students with recognition of part-time dedication and academic exemption from attendance exemption: In the first and second opportunity, the evaluation criteria will be considered according to the performance of a mixed test with a weight of 100% over the final grade. It will consist of a test in which theoretical and practical questions will be included in which the students will have to demonstrate that they have achieved the competences and the learning results of the subject.

#### C) GRADING OPPORTUNITIES:

1. First opportunity: the evaluation criteria previously indicated in this section will be applied.
2. Second opportunity: the criteria of the first opportunity are maintained and the grades achieved in the continuous assessment will be preserved. However, the possibility of retaking the part corresponding to "Case Studies" is offered. Alternatively, upon request, the student will have the opportunity to take a mixed test on the date of the official calendar, equivalent to 100% of the final grade.
3. Advance call: The conditions for evaluating this call will be specific to this opportunity. This will be evaluated through a mixed test that will represent 100% of the final grade.

#### D) OTHER EVALUATION OBSERVATIONS:

1. On minimums in the evaluation criteria: A minimum grade is not required in the part of the continuous assessment. For the mixed test it is necessary to obtain 50% of the possible grade to be able to pass the subject. This requirement applies to both the first and second opportunities. For the whole activities (the two parts), the student must obtain a minimum score of 5 points to pass the course, but as long as the mixed test reaches a minimum of 50% of the test score.
2. All aspects related to "academic dispensation", "dedication to study", "permanence" and "academic fraud" will be established in accordance with the current academic regulations of the UDC.

### Sources of information



<p><b>Basic</b></p>	<ul style="list-style-type: none"> <li>- ANTELO, M. (2019). Comportamiento estratégico. Reverté</li> <li>- BELLEFLAMME, P.; PEITZ, M. (2021). Organización industrial: mercados y estrategias. Bogotá: Editorial Universidad del Rosario</li> <li>- FERNANDEZ DE CASTRO, J.; DUCH BROWN, N., (2003). Economía Industrial: Un enfoque estratégico. Madrid, McGraw-Hill</li> <li>- GARDNER, R. (1996). Juegos para empresarios y economistas. Antoni Bosch</li> <li>- GIBBONS, R. (2011). Un primer curso de teoría de juegos. Antoni Bosch</li> <li>- PEPALL, L.; RICHARDS; D.J.; NORMAN, G. (2006). Organización industrial: teoría y práctica contemporáneas. Thomson</li> <li>- TIROLE, J. (1990). Teoría de la Organización Industrial. Ariel, Barcelona</li> <li>- VEGA-REDONDO, F. (2000). Economía y juegos. Antoni Bosch</li> <li>- ANTELO, M. (2022). Conflicto y Cooperación. Pirámide</li> <li>- BELLEFLAMME P.; PEITZ M. (2015). Industrial Organization. Markets and Strategies. Cambridge University Press</li> <li>- GARDNER, R. (2003). Games for business and economics. Wiley</li> <li>- GIBBONS, R. (1992). A Primer in game theory. New York. Harvester Wheatsheaf</li> <li>- OSBORNE, M.J. (2004). An introduction to game theory. Oxford University Press</li> <li>- PEPALL, L.; RICHARDS, D.J.; NORMAN, G. (2005). Industrial Organization: Contemporary Theory and Practice. Thomson/South-Western</li> <li>- TIROLE, J. (1988). The theory of industrial organization. The MITT Press</li> </ul>
<p><b>Complementary</b></p>	<ul style="list-style-type: none"> <li>- FAIÑA MEDIN J.A. (2003). A Teoría de Xogos: O nobel de Economía e moito máis.... A Coruña UDC</li> <li>- MOTTA. M. (2018). Política de competencia: teoría y práctica. Fondo de Cultura Económica</li> <li>- SERRANO, R.; FELDMAN, A. (2016). Microeconomía intermedia con cálculo. Madrid: Ibergarceta</li> <li>- MARTIN, S (2002). Advanced Industrial Economics. Blackwell Publishers</li> <li>- MOTTA, M. (2004). Competition policy: theory and practice. Cambridge University Press</li> <li>- PHILIPS, L., (1995). Competition policy: a game-theoretic perspective. Cambridge University Press</li> <li>- SERRANO, R.; FELDMAN, A. (2018). A short course in intermediate microeconomics with calculus. Cambridge University Press</li> </ul>

### Recommendations

#### Subjects that it is recommended to have taken before

Microeconomics and Markets/611G01012  
 Microeconomic Theory/611G01023

#### Subjects that are recommended to be taken simultaneously

#### Subjects that continue the syllabus

#### Other comments

1. The delivery of the documentary works that are done in this subject: a. They will be requested in virtual format and / or in computer support b. It will be done through Moodle or TEAMS, in digital format and without needing to print them  
 2. The importance of the ethical principles related to the values of sustainability in personal and professional behaviors must be taken into account  
 3. Students will work to identify and modify prejudices and sexist attitudes, and they will influence the environment to modify them and promote values of respect and equality  
 4. The full integration of students that, for physical, sensory, psychological or socio-cultural reasons experience difficulties to adequate, equal and profitable access to university life will be facilitated

(\*)The teaching guide is the document in which the URV publishes the information about all its courses. It is a public document and cannot be modified. Only in exceptional cases can it be revised by the competent agent or duly revised so that it is in line with current legislation.