



DESCRIPCIÓN DE LA ASIGNATURA

Grado/Máster en:	Graduado/a en Economía + Graduado/a en Administración y Dirección de Empresas por la Universidad de Málaga
Centro:	Málaga
Asignatura:	Facultad de Ciencias Económicas y Empresariales
Código:	Teoría de Juegos
Tipo:	210
Materia:	Formación básica
Módulo:	Teoría de Juegos
Experimentalidad:	MATERIA OBLIGATORIA
Idioma en el que se imparte:	Inglés
Curso:	2
Semestre:	2
Nº Créditos	6
Nº Horas de dedicación del estudiante:	150
Nº Horas presenciales:	45
Tamaño del Grupo Grande:	
Tamaño del Grupo Reducido:	
Página web de la asignatura:	

EQUIPO DOCENTE

Departamento: TEORÍA E HISTORIA ECONÓMICA
Área: FUNDAMENTOS DEL ANÁLISIS ECONÓMICO

Nombre y Apellidos	Mail	Teléfono Laboral	Despacho	Horario Tutorías
Coordinador/a: ASCENCIÓN ANDINA DÍAZ	aandina@uma.es	952131255	3402 - FAC. DE ECONÓMICAS	Primer cuatrimestre: Lunes 09:30 - 12:30, Martes 09:30 - 12:30 Segundo cuatrimestre: Martes 09:15 - 10:15, Jueves 10:15 - 12:00, Miércoles 15:30 - 16:00, Miércoles 13:45 - 14:15, Martes 15:30 - 16:00, Martes 12:00 - 13:45

RECOMENDACIONES Y ORIENTACIONES

Requirements:

Basic knowledge of algebra, calculus, mathematical optimization and statistics.

Recommendations:

1. Attend classes and take notes.
2. Before lectures, individual reading of the material to be explained.
3. Before exercise classes, work in groups on the problem sets.
4. Use of bibliography and office hours.

CONTEXTO

This course analyzes the strategic behavior of agents (consumers, firms and such) when interacting with other agents. The situations we will analyze cover a broad variety of settings: from firms competing for consumers, or consumers competing for an object, to politicians competing for votes or financial support.

Some of the situations analyzed are, therefore, much related to those studied in Microeconomics, Industrial Organization, Behavioral Economics or International Economics.

COMPETENCIAS

CONTENIDOS DE LA ASIGNATURA

Bloque temático

INTRODUCTION

LESSON 1. THEORETICAL SETTINGS

- 1.1. Introduction to Game Theory
- 1.2. Classification of games
- 1.3. Representation of a game in extensive form
- 1.4. Representation of a game in strategic form
- 1.5. Mixed strategies



BASIC CONCEPTS

LESSON 2. BASIC SOLUTION CONCEPTS

- 2.1. Solution concepts
- 2.2. Dominant strategies
- 2.3. Nash equilibrium in pure strategies
- 2.4. Nash equilibrium in mixed strategies
- 2.5. Economic applications

LESSON 3. NASH EQUILIBRIUM REFINEMENTS

- 3.1. Equilibrium selection: Strict equilibrium, Pareto (efficiency) dominance, Risk dominance and Evolutionary stability
- 3.2. Subgame perfect equilibrium
- 3.3. Sequential equilibrium
- 3.4. Economic Applications

ADVANCED TOPICS

LESSON 4. INCOMPLETE INFORMATION

- 4.1. Introduction
- 4.2. Bayesian games
- 4.3. Economic applications
- 4.4. Information economics: Signalling games
- 4.5. Economic applications

LESSON 5. REPEATED GAMES

- 5.1. Introduction
- 5.2. Finite games: Stage game with a unique Nash equilibrium
- 5.3. Finite games: Stage game with two Nash equilibria
- 5.4. Infinitely repeated games
- 5.5. Applications

ACTIVIDADES FORMATIVAS

Actividades presenciales

Actividades expositivas

Lección magistral

Actividades prácticas en aula docente

Resolución de problemas

ACTIVIDADES DE EVALUACIÓN

RESULTADOS DE APRENDIZAJE / CRITERIOS DE EVALUACIÓN

The student will learn how to analyze and give predictions to situations that involve the strategic interaction of agents

PROCEDIMIENTO DE EVALUACIÓN

1. Final exam.

Criteria: Assess mastery of theoretical and practical concepts.

Skills Evaluated: All

Weighting (% of final grade): 60%

Recoverable Activity: YES

2. Mid-term exam.

Criteria: Assess mastery of theoretical and practical concepts.

Skills Evaluated: All

Weighting (% of final grade): 20%



Recoverable Activity: NO

3. Class/Home work.

Criteria: Assess mastery of theoretical and practical concepts.

Skills Evaluated: All

Weighting (% of final grade): 20%

Recoverable Activity: NO

Non-recoverable activities: The grade obtained during the course in the non-recoverable activities applies to the three calls of an academic year: First call (June), Second call (September) and Third call (December/January).

Part-time students: According to UMA legislation, part-time students have the right to recognition of a system of flexible class attendance.

BIBLIOGRAFÍA Y OTROS RECURSOS

Básica

Robert Gibbons, Game Theory for Applied Economists, Princeton University Press.

Complementaria

David M. Kreps, A Course in Microeconomic Theory, Princeton University Press.

Drew Fudenberg and Jean Tirole, Game Theory, The MIT Press.

Fernando Vega Redondo, Economics and the Theory of Games, Cambridge University Press.

Martin J. Osborne and Ariel Rubinstein, A Course in Game Theory, The MIT Press.

Roger B. Myerson, Game Theory: Analysis of Conflict, Harvard University Press

DISTRIBUCIÓN DEL TRABAJO DEL ESTUDIANTE

ACTIVIDAD FORMATIVA PRESENCIAL

Descripción	Horas	Grupo grande	Grupos reducidos
Lección magistral	36	<input checked="" type="checkbox"/>	<input type="checkbox"/>
Resolución de problemas	9	<input type="checkbox"/>	<input checked="" type="checkbox"/>

TOTAL HORAS ACTIVIDAD FORMATIVA PRESENCIAL 45

TOTAL HORAS ACTIVIDAD FORMATIVA NO PRESENCIAL 90

TOTAL HORAS ACTIVIDAD EVALUACIÓN 15

TOTAL HORAS DE TRABAJO DEL ESTUDIANTE 150

