

## 27424 - Microeconomics IV

### Información del Plan Docente

Academic Year	2017/18
Faculty / School	109 - Facultad de Economía y Empresa
Degree	417 - Degree in Economics
ECTS	6.0
Year	3
Semester	Second semester
Subject Type	Compulsory
Module	---

### **1.General information**

#### **1.1.Introduction**

Microeconomics IV is devoted to the economic analysis of oligopolistic markets and market failures caused by both the existence of market power and also due to asymmetric information. Since the main analytic tool that is used in studying oligopolies is game theory, the first part of the course introduces its basic concepts.

#### **1.2.Recommendations to take this course**

#### **1.3.Context and importance of this course in the degree**

#### **1.4.Activities and key dates**

### **2.Learning goals**

#### **2.1.Learning goals**

#### **2.2.Importance of learning goals**

### **3.Aims of the course and competences**

#### **3.1.Aims of the course**

#### **3.2.Competences**

### **4.Assessment (1st and 2nd call)**

#### **4.1.Assessment tasks (description of tasks, marking system and assessment criteria)**

### **5.Methodology, learning tasks, syllabus and resources**

#### **5.1.Methodological overview**

Microeconomics IV is devoted to the economic analysis of oligopolistic markets and market failures caused by both the existence of market power and also due to asymmetric information. Since the main analytic tool that is used in studying

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oligopolies is game theory, the first part of the course introduces its basic concepts.

### 5.2.Learning tasks

**The learning process that has been designed for this course is based on the following activities:**

1.- Participative lectures. The professor will explain the basic course content. The student must supplement the explanations with the recommended reading .

2.- Practical classes. Students will solve practice exercises, always under the supervision of the instructor. This will be done in smaller groups to facilitate the participation of each student.

**The program offered to the students to help them achieve the learning results includes the following activities:**

#### **Lectures:**

Credits: 1,2.

Methodology: Class attendance and participative problem-solving.

#### **Practical classes:**

Credits: 1.2

Methodology: Class attendance, problem-solving and case studies.

#### **Tutorials and seminars:**

Credits: 0.6

Methodology: Tutorial and complementary activities.

#### **Personal work:**

Credits: 3

Methodology: Problem-solving. Use of ICTs. Preparation of assignments and exams.

## **5.3.Syllabus**

### **Part I Introduction to Game Theory**

#### **Unit 1. Game Theory I: Simultaneous games**

- 1.1. Introduction.
- 1.2. Dominant and dominated strategies.
- 1.3 Best response strategies.
- 1.4. Nash equilibrium: Properties.
- 1.5. Mixed strategies Nash equilibrium.

#### **Unit 2. Game Theory II: Dynamic games**

- 2.1. Dynamic games with perfect information.
- 2.2. Dynamic games with imperfect information.
- 2.3. Repeated games.

### **Part II Oligopoly Theory**

#### **Unit 3. Static Models of Oligopoly**

- 3.1. Cournot model.
- 3.2 Bertrand model.
- 3.3. Price competition with capacity constraints.
- 3.4. Competition with differentiated product.

#### **Unit 4. Dynamic models of Oligopoly**

- 4.1. Repeated interaction: Price instability and collusion.

4.2..Stackelberg Model

4.3. Entry decisions

4.4. Anti-trust Law.

### **Part III Economics of Information**

#### **Unit 5. Asymmetric Information**

5.1. Basic concepts

5.2. Adverse selection

5.3. Signaling

5.4. Self-selection

5.5. Moral hazard

#### **5.4.Course planning and calendar**

##### **Timetable**

	<b>THEORY</b>	<b>PRACTICE</b>	<b>HOURS OF PERSONAL WORK</b>
LESSON 1	6 hours	6 hours	10 hours
LESSON 2	6 hours	6 hours	15 hours
LESSON 3	6 hours	6 hours	20 hours
LESSON 4	6 hours	6 hours	15 hours
LESSON 5	6 hours	6 hours	15 hours

### 5.5. Bibliography and recommended resources

Varian, H.R. (1992): Análisis Microeconómico. Bosch. Barcelona.

Gibbons, R. (1993): Un primer curso de Teoría de Juegos. Bosch, Barcelona.

Fernández de Castro, J. y J. Tugores (1992): Fundamentos de Microeconomía. McGraw-Hill, Madrid.

Nicholson, W. (1997): Teoría Microeconómica. McGraw-Hill, Madrid.

#### Recomendada:

Macho-Stadler, I. y Pérez-Castrillo, D. (1994): Introducción a la economía de la información. Ariel Economía S.A. Barcelona.

Segura, J. (2002): Análisis Microeconómico. Ed. Alianza Universidad.

Gravelle, H. y Rees, R. (2006): Microeconomía. Ed. Pearson. Prentice Hall

Fudenberg, D. y Tirole, J. (1993): Game Theory. The MIT Press. Cambridge, Massachusetts

Cabral, L. (1997): Economía Industrial. McGraw Hill, España.

Martin, S. (2001): Industrial Organization. A European Perspective. Oxford University Press.

Tirole, J. (1990): La Teoría de la Organización Industrial. Ed. Ariel Economía, Barcelona.