Academic Year 23-24

# SCHOOL OF BUSINESS, ECONOMICS AND LAW

## **DOUBLE DEGREE IN LAW AND BUSINESS ADMINISTRATION AND MANAGEMENT**

# **SYLLABUS**

COURSE: Microeconomics CODE: G15

YEAR: 2 SEMESTER: 1
COURSE TYPE: Compulsory ECTS CREDITS: 6

DEPARTMENT: Economics COORDINATOR: Agustin Casas

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## 1. COURSE DESCRIPTION AND MAIN OBJECTIVES

This course offers the student and array of models of optimal decisions for economic agents: consumers and firms. The study of decision-making is then connected to the demand curve (consumers) and the supply curve (firms). The course also examines interaction between supply and demand in different market structure scenarios depending on the market power of the different agents.

### 2. LEARNING OUTCOMES

- CE10: Understand the nature of the different variables of a given economic problem and how to solve it by using mathematical concepts.
- CE14: Understand the importance of technological changes and innovation.

#### 3. LEARNING METHODOLOGY

#### 3.1. CONTENTS

## **CHAPTER 1. Consumer Theory I**

- 1.1.- The choice problem and the formal analysis of preferences
- 1.2.- Deriving the demand function
- 1.3.- Revealed preferences
- 1.4.- The Slutsky equation
- 1.5.- Applications

## **CHAPTER 2. Consumer Theory II**

- 2.1.-. Relative prices
- 2.3.-. Consumer surplus and market demand
- 2.4.- Market demand: aggregation of individual demand curves
- 2.5.- Elasticity of demand and income
- 2.6.- Applications

## CHAPTER 3. The firm and the supply I

- 3.1.- Technology. Technological restrictions
- 3.2.- Taxonomy of technologies.
- 3.3.- Marginal Product and Marginal Rate of Technical Substitution

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- 3.4.- Returns to scale
- 3.5.- Applications

## CHAPTER 4. The firm and the supply II

- 4.1.- Profit maximization and cost minimization
- 4.2.- The formal approach to profit maximization.
- 4.3. Cost minimization. Cost functions: marginal costs and average costs
- 4.4.- Supply curves.
- 4.5.- Aggregate supply. Curve shifts and moves along the curve.
- 4.6.- Elasticity of supply
- 4.7. Applications

#### **CHAPTER 5. Partial equilibrium I: competitive markets**

- 5.1.- General principles of perfect competition
- 5.2.- The supply curve of a competitive firm. The relationship between supply and marginal costs
- 5.3.- The supply curve of the industry
- 5.4. Short-term equilibrium
- 5.5. Long-term equilibrium
- 5.6.- Producer surplus
- 5.7. Applications

### **CHAPTER 6. Partial equilibrium II: the monopoly**

- 6.1.- General principles of the monopoly
- 6.2.- Market power
- 6.3. Efficiency in the monopoly
- 6.4. The two-plant monopoly
- 6.6. Natural monopoly
- 6.7. Applications

# **CHAPTER 7. Partial equilibrium III: non-competitive markets**

- 7.1.- Monopolistic competition
- 7.2.- Oligopoly. A special case: duopoly
- 7.3.- Price competition: Bertrand
- 7.4.- Competing choosing quantities: Cournot and Stackelberg
- 7.5.- Cartels
- 7.6.- Applications

## **CHAPTER 8. Introduction to Game Theory**

- 8.1.- Gaming and Strategic Decisions
- 8.2.- Dominant Strategies
- 8.3.- Nash equilibrium
- 8.4.- Sequential games. Perfect Nash equilibrium in subgames
- 8.5.- Applications

## 3.2. ASSESSMENT GUIDELINES

A continuous assessment process will take place during the course based on the active participation in the classroom, coursework, assignments, intermediate tests and a final exam. The continuous evaluation will weight 40% of the final mark, and the remaining 60% will come from the final exam. The minimum mark required in the final exam to succeed is 5: if this score is not achieved then the final mark will be the one obtained in the final exam.

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All groups of the same course receive the same exam. The exam is comprehensive enough as to include the whole curriculum content of the course and it is a written exam. The exams made through the course and included in the continuous assessment process do not exempt the student from being evaluated in the final exam of all the contents of the course.

Class attendance is compulsory for students taking the course for the first time. Failing more than 20% of the teaching hours leads to the loss of the right to take the final exam in the ordinary call. For those students retaking the course, attendance is not required (yet advisable), but they should follow the continuous assessment evaluation anyway (that is, the evaluation criteria are the same than for those taking the course for the first time).

In the extraordinary call, the student's continuous assessment mark would be the more favorable of the following two: the continuous assessment mark obtained in the ordinary call, or the average between the final exam and the continuous assessment marks obtained in the ordinary call.

ACCIONATE FOR EVALUATION A		
ASSIGNMENT FOR EVALUATION 1		
Weight:	10%	
Description:	<b>REMOTE ASSESSMENTS:</b> In this course, there will be two types of assessments throughout the semester: in-person assessments and remote assessments. Remote assessments will consist of tasks that will be submitted virtually through CANVAS. For the calculation of this 10%, the five tasks with the highest grades will be considered, with equal weight given to each of those five tasks.	
ASSIGNMENT FOR EVALUATION 2		
Weight:	30%	
Description:	<b>IN-PERSON ASSESSMENTS</b> : In this course, there will be two types of assessments throughout the semester: in-person assessments and remote assessments. The in-person assessments will consist of three evaluations to be done in class. For the calculation of 30%, the two evaluations with the highest grades will be taken into account, with equal weight given to each of those.	
	The first one will take place in the fifth week of classes.	
	The second one will take place in the ninth week of classes.	
	The third one will take place in the thirteenth week of classes.	
	The professor will not justify absences for these in-person assessments.	

FINAL EXAM		
Minimum mark:	5	
Weight:	60%	
Description:	Final exam is composed of multiple choice questions (between 30 and 60% of the exam) and	
	2 or 3 problems (between 70 and 40% of the exam).	

#### 4. RESOURCES

### 4.1. BIBLIOGRAPHY

- Varian, H. R. Intermediate Microeconomics.
- Pindyck, R. y D. Rubinfeld. Microeconomics. Prentice Hall. 9ª
- David Dranove, David Besanko, Mark Shanley, Scott Schaefer. Economics of Strategy. Wiley