

UNIVERSITAT POLITÈCNICA
DE CATALUNYA
BARCELONATECH

# MICROECONOMICS TEACHING GUIDE



#### **GENERAL INFORMATION**

Course:	Microeconomics
Code:	801104 (ADE)
School year:	2022/2023
Degree:	Grado en Administración y Dirección de Empresas
ECTS credits:	6
Prerequisites:	It is recommended that students have passed Introduction to Economics
Year and semester:	3rd Course, 1st semester
Last revision:	September 2022
Course coordinator:	Dr Àlex Sanz

#### 1. COURSE DESCRIPTION

This course covers basic topics in microeconomics and is divided into 4 main chapters. In these four chapters, the course presents factual material concerning the operation of different markets as well as the development of a rudimentary understanding of firm and household decision-making. The course focuses on how competitive and non-competitive markets operate and how government regulation affects markets (chapters I and II). Also, the course presents the basics of market failures and some initial solutions (chapter II). Finally, the course analyses how individuals make decisions that affect their optimal choice when buying and how firms make decisions that affect profits and production (chapter IV).

## 2. COURSE OBJECTIVES

Competences – at the end of the course the learner will have acquired the responsibility and autonomy to:

- Understand the basic mechanism by which the markets work, including various approaches to the different types of markets.
- Relate the basic economic theory and principles to current microeconomic issues and evaluate related public policy



- Communicate knowledge and understanding of economic issues using written, verbal and/or visual expression
- Have a lifelong ability to study economics and the broader social consequences of economic decision-making
- Work in a team and collaborate

Skills – at the end of the course the learner will have acquired the following skills:

- Identify the determinants of supply and demand; demonstrate the impact of shifts in both market supply and demand curves on equilibrium price and output.
- Calculate supply and demand elasticities, identify the determinants of price elasticity of demand and supply, and demonstrate the relationship between elasticity and total revenue.
- Identify the four market structures by characteristics; calculate and graph the profitmaximizing price and quantity in the output markets by the use of marginal analysis.
- Describe governmental efforts to address market failures such as market power, externalities, and public goods.
- Identify the determinants of the consumer's choice, and demonstrate the relationship between market prices and the marginal rate of substitution between goods at the optimum.
- Identify the determinants of the firm's theory, and demonstrate the shape of the cost curves.

#### 3. CONTENT

# **CHAPTER I: How do perfectly competitive markets work?**

# **UNIT 1: The market forces of Supply and Demand**

- 1.1 Demand.
- 1.2 Supply.
- 1.3 Equilibrium.
- 1.4 Analysing changes in equilibrium.

- Understand how to use the supply and demand model to analyse competitive markets.
- Understand the determinants and the slope of the demand curve.



- Understand the determinants and the slope of the supply curve.
- Understand how to analyse how any event influences a market using the supplyand-demand diagram to examine how the event affects the equilibrium price and quantity.

# UNIT 2: Elasticities and their applications.

- 2.1 Price Elasticity of Demand.
- 2.2 Revenue and Elasticity.
- 2.3 Other Demand Elasticities.
- 2.4 Elasticity of Supply.

## **Learning outcomes**

- Understand what the price elasticity of demand measures and how to calculate it.
- Understand the type of demand depending on its price elasticity.
- Understand the relationship between revenue and price elasticity of demand.
- Understand what the income elasticity of demand and cross-price elasticity of demand measure and how to calculate them.
- Understand what the price elasticity of supply measures and how to calculate it.
- Understand the type of supply depending on its price elasticity.

# UNIT 3: Consumers, producers and the efficiency of the markets

- 3.1 Consumer surplus.
- 3.2 Producer surplus.
- 3.3 Market efficiency.
- 3.4 Market failures.

- Understand the economic concept related to consumer surplus and how to calculate it.
- Understand the economic concept related to producer surplus and how to calculate it.
- Understand when an allocation is efficient.



# **UNIT 4: Supply, Demand and Government Interventions**

- 4.1 Price control.
- 4.2 Taxes.

# **Learning outcomes**

- Understand how price controls affect the market's equilibrium.
- Understand how taxes affect the market's equilibrium.
- Understand how the incidence of a tax on consumers and producers depends on the price elasticity of demand and supply.

# **CHAPTER II: (Some) Market Failures**

## **UNIT 5: Externalities**

5.1 Externalities I: Types.

5.2 Externalities II: Analysis

5.3 Solutions: Public and Private.

# **Learning outcomes**

- Understand what an externality is and how it affects market efficiency.
- Understand the different types of externalities.
- Understand the different, both public and private, solutions.

## **UNIT 6: Public Goods and Common Resources**

- 6.1 Classification of Goods.
- 6.2 Public Goods: Analysis.
- 6.3 Common Resources: Analysis.



- Understand how goods are classified in economic terms.
- Understand the problem of public goods.
- Understand the concept, and the problem, of common resources.

# **CHAPTER III: Imperfect Markets**

## **UNIT 7: Monopoly**

- 7.1 Determinants.
- 7.2 Monopoly decisions.
- 7.3 Welfare implications.
- 7.4 Price Discrimination.
- 7.5 Public Policies.

## **Learning outcomes**

- Understand how a monopoly can arise and the production decision of a monopoly.
- Understand what is a natural monopoly.
- Understand how a monopoly creates a deadweight loss.
- Understand how a monopoly can fix different prices for different consumers.
- Understand the problems when regulating natural monopolies.

# **UNIT 8: Oligopoly**

- 8.1 Markets with few sellers.
- 8.2 Economics of Cooperation.
- 8.3 Is cooperation impossible?
- 8.4 Public Policies toward Cartels.

- Understand the relationship between firms in oligopolistic markets.
- Understand how firms have incentives to cooperate in oligopolistic markets.
- Understand how the dilemma's prisoner is useful to analyze oligopolistic markets.
- Understand how regulators and policy-makers can deal with oligopolistic markets.



# **UNIT 9: Monopolistic Competition**

- 9.1 Concentration Indexes.
- 9.2 Between Monopoly and Perfect Competition.
- 9.3 Monopolistic Competition and Welfare.
- 9.4 Advertising and Brand Names.

## **Learning outcomes**

- Understand the basic characteristics of a monopolistically competitive market.
- Understand the equilibrium in a monopolistically competitive market.
- Understand why product differentiation leads to the use of branding and advertising.

# **CHAPTER IV: Consumer and firm analysis**

## **UNIT 10: Firm's Theory and Supply**

- 10.1 Costs, Revenues and Profit.
- 10.2 Production Function.
- 10.3 Scale Economies.
- 10.4 Types of Costs.
- 10.5 Short and Long-run Costs.
- 10.6 Supply Curve.

## Learning outcomes

- Understand the economic concept of opportunity cost.
- Understand the concept of the production function for a firm.
- Understand the types of costs for a firm and how to graph them.
- Understand the differences between the short and long run for a firm.
- Understand how to derive the supply curve.

# **UNIT 11: Consumers' Choice and Demand**



- 11.1 Budget Constraint.
- 11.2 Preferences, Indifference Curves and Utility.
- 11.3 Optimization.
- 11.4 Demand Curve.
- 11.5 Income and Substitution Effects.

- Understand the economic concept related to the budget constraint in consumer terms.
- Understand the concept of preferences and how to represent them via consumers' indifference curves.
- Understand the optimal choice for the consumer and its economic interpretation.
- Understand how changes in prices and income affect the optimal choice.
- Understand how to derive the demand curve.



#### 4. LEARNING METHODOLOGY

The learning methodology is based in:

- a) Lectures: the lecturer introduces and explains the concepts and the graphical analysis corresponding to each topic.
- b) Problems: in-class (or at-home) activities dedicated to problem-solving. The purpose is to reinforce the learning of the theoretical concepts.

All teaching material will be available in the Campus Euncet online classroom of the course.

#### 5. GRADING

The final mark (FM) of the course is computed as follows:

## FM = Mark from final exam x 60% + Mark from continuous assessment x 40%.

- The final exam has two attempts.
- To compute the FM the student must obtain at least 40 points out of 100 in the final exam.
- The student passes the course if the FM is equal to or higher than 50 points out of 100.
- The schedule of the activities included in the continuous assessment will be available in the Campus Euncet online classroom of the course and will be explained in the first session.

## **On-site groups:**

Activity type	Description	% Evaluation		
Tasks:				
	Chapter I   Unit 4. Experiment	12,50%		
	Chapter 2   Unit 5. Experiment	12,50%		
	Chapter I   Unit 4. Problem set	12,50%		
	Chapter II   Unit 6. Problem set	12,50%		
	Chapter I   Unit 4. Essay	12,50%		
	Chapter III   Unit 9. Problem set	12,50%		
	Chapter III   Unit 8. Experiment	12,50%		
	Chapter III   Unit 9. Essay	12,50%		
Final exam:		•	60%	
	Examen final	100%		



# Partly on-site groups:

Activity type	Description	% Evaluation	
Entregas:			40%
	Chapter I   Unit 2: Problem set	10%	
	Chapter I   Unit 4: Problem set	10%	
	Chapter II   Unit 6: Problem set	10%	
	Chapter I   Unit 4: Essay	25%	
	Chapter III   Unit 8: Problem set	10%	
	Chapter IV   Unit 10: Problem set	10%	
	Chapter III   Unit 9: Essay	25%	
Final exam:			60%
	Examen final	100%	

#### 6. REFERENCES

## **6.1. BASIC**

• Mankiw, G. (2008). Principles of Microeconomics, (5th ed.) Harvard University Press

## **6.2. RECOMMENDED**

- Case, K., Fair, R., Oster, S. (2012). Principles of Microeconomics, (12thed.) Pearson..
- Varian, H. (2014). Intermediate Microeconomics, (9<sup>th</sup> ed.) W. W. Norton & Co.
- Greenlaw, S.A., & Shapiro, D. (2018). Principles of Microeconomics (2nd ed.). Rice University

The instructor may recommend additional topic-specific readings or materials throughout the semester.