

# MICROECONOMICS

## Dual Degree in Business Administration & Data and Business Analytics BBADBA SEP-2024 MIC-NBDA.1.M.A

Area Economics

Number of sessions: 30

Academic year: 24-25

Degree course: FIRST

Number of credits: 6.0

Semester: 2º

Category: BASIC

Language: English

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### Jorge Pena, PhD

Jorge Pena is PhD for the UNED and Md in Industrial Organization and Markets for the Universidad Carlos III. He has worked as consultant for organizations such as The World Bank, The Interamerican Development Bank or the Ministry of Economy and Competitiveness. He has taught different courses of econometrics, statistics, microeconomics and macroeconomics at the IE University, Universidad Carlos III, Universidad Complutense and The World Bank.

### Office Hours

Office hours will be on request. Please contact at:

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## SUBJECT DESCRIPTION

??This course is an introduction to microeconomic analysis and its application to current social problems. Students will get acquainted with basic microeconomic thinking and will get a general and overarching perspective on the skills and information to understand more advanced microeconomic topics.

Microeconomics is the branch of economics that studies the behavior of individuals and firms in making decisions; how markets work and the conditions under which free markets lead to desirable allocations; and when there are market failures and a need for government intervention. After completing this course, by focusing on the individual decisions of consumers and firms, students obtain a proper understanding of the behaviour of economic agents and a powerful tool to analyse the outcomes that result from their interaction.

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The course is structured in six different parts:

1. The first part analyses **how economists think**.
2. The second part presents **how markets work**: supply and demand, elasticities and government policies.
3. The third part analyses the relationship between **markets and welfare**.
4. The fourth part covers the **economics of the public sector**: externalities and public goods.
5. The fifth course presents **consumer behavior**.
6. The last part of the course focuses on firm behavior and the analysis of different **market structures**: perfect competition, monopolies, oligopolies and markets with differentiated products.

Economics is a social science that uses inductive approaches. The course uses a data-based approach to understand theoretical abstract concepts. It insists on the application of knowledge to real cases and experiences, and on understanding the use mathematical models. Therefore, the focus of the course is eminently practical. The theoretical concepts learnt in class will be complemented with numerous real case studies and empirical exercises.

## LEARNING OBJECTIVES

The goal is for students to start thinking as economists: first, they get to know verified basic concepts and theories; second, they familiarize with the methodology that scholars and practitioners use in their research; finally, they interpret current real-life events based on recent economic theory. The final aim is that this methodology becomes a useful tool that students can apply in their future professional career.

Given its introductory nature, the basic objective of the course is to familiarize students with basic microeconomic concepts and with the economic methodology. After completing this course, students should be capable of the following:

- GOAL 1: Explain the major underlying principles of economics to understand how the economic system works.
- GOAL 2: Analyse how companies react to changes in market conditions in theoretical and practical cases.
- GOAL 3: Describe market failures and their impact on efficiency in theoretical and practical cases.
- GOAL 4: Discuss consumer behavior based on rational decision-making theory to interpret preferences and optimal choices.
- GOAL 5: Familiarize with the methodology that scholars and practitioners use to understand and explain decision making and the economic problems that surround us:
  - Basic theoretical models

- ?Experiments
- ?Empirical analysis: work with data
  - ??Students will learn about the social and ecological impact of economic policies and market behavior. Students will analyze and evaluate how different market structures and government policies have environmental and social impact on economies.

## TEACHING METHODOLOGY

IE University teaching method is defined by its collaborative, active, and applied nature. Students actively participate in the whole process to build their knowledge and sharpen their skills. Professor's main role is to lead and guide students to achieve the learning objectives of the course. This is done by engaging in a diverse range of teaching techniques and different types of learning activities such as the following:

Sessions will combine the explanation of theoretical concepts with practical activities such as doing exercises, class activities and experiments.

They are intended to be highly dynamic. Students will prepare the readings before class.

There will be individual and group assignments in which students will be tasked with finding sources of information, putting theory into practice, systematizing, reasoning, and solving problems.

Some of these assignments may be presented in class.

The Professor will implement different active-learning techniques: small quizzes, think-pair-share activities, or one-minute essays.

Learning Activity	Weighting	Estimated time a student should dedicate to prepare for and participate in
Lectures	30.0 %	45.0 hours
Discussions	3.3 %	5.0 hours
Exercises in class, Asynchronous sessions, Field Work	20.0 %	30.0 hours
Group work	26.7 %	40.0 hours
Individual studying	20.0 %	30.0 hours
TOTAL	100.0 %	150.0 hours

## AI POLICY

Generative artificial intelligence (GenAI) tools may be used in this course for research, ideation, generating an outline, proofreading, grammar check and image generation with appropriate acknowledgement. GenAI may not be used for assignments, group submissions or exams. If a student is found to have used AI-generated content inappropriately, it will be considered academic misconduct, and the student might fail the respective assignment or the course.

## PROGRAM

### SESSION 1 (LIVE IN-PERSON)

**Sustainability Topics:**

- Environment
- Governance
- Social Challenge

### **Introduction to the Course: Learning Objectives and Course Evaluation**

Introduction to how students will learn about the social and ecological impact of economic policies and market behavior. Students will analyze and evaluate how different market structures and government policies have environmental and social impact on economies

*Other / Complementary Documentation: Syllabus*

## **SESSION 2 (LIVE IN-PERSON)**

### **Sustainability Topics:**

- Environment
- Governance
- Social Challenge
- Economic Development

E: Normative versus positive economics; S: scarcity, opportunity costs; G: market failures: externalities and market power; equality, incentives; **Some examples:** Management of scarce resources and economic sustainability. Double materiality and the impact of sustainability on efficiency and equity. The opportunity cost of not incorporating ESG policies in the company. Economic and financial incentives: access to financing for integrating ESG policies in the company, competitive disadvantage of companies that need to adapt their operations to ESG strategies

### **How Economists think**

*Book Chapters: Mankiw, G: Chapter 1: Ten principles of Economics (See Bibliography)*

*Book Chapters: Mankiw Chapter 2: Thinking Like an Economist (See Bibliography)*

*Book Chapters: Krugman, P: Chapter 1: First Principles (See Bibliography)*

*Book Chapters: Krugman, P: Chapter 2: Economic Models: Trade-offs and Trade (See Bibliography)*

## **SESSION 3 (LIVE IN-PERSON)**

### **Sustainability Topics:**

- Environment
- Governance
- Social Challenge

E, normal and inferior goods: the impact of income growth on markets of private goods; S: normal and inferior goods: the impact of income growth on markets of private goods ; G: Surpluses and shortages; **Some examples:** analyze the use of supply and demand and the concept of price elasticity of demand to explain environmental issues. For example, by how much do oil prices need to increase to meet Paris Agreement targets? The new determinants of demand (growing number of socially and environmentally conscious consumers, greater demand for transparency from consumers to companies, more participants in circular economy processes - the 7Rs: redesign, reduce, reuse, repair, renew, recover and recycle) and supply (social and green innovation, adaptation of companies to new regulations, lower costs for incorporating ESG in their strategy, corporate reputation, new participating companies that already take into account environmental, social and governance aspects).

### **The Market forces of Supply and Demand**

*Book Chapters: Mankiw, G: Chapter 4: The Market Forces of Supply and Demand (See Bibliography)*

*Book Chapters: Krugman, P: Chapter 3: Supply and Demand (See Bibliography)*

## SESSION 4 (LIVE IN-PERSON)

### Sustainability Topics:

- Governance
- Social Challenge
- Economic Development

E, S, G: elasticity as a determinant for the impact of market dynamics: consumers and sellers (production processes), income levels, externalities, scarce resources. **Some examples:** analyze the use of concepts of demand, supply, elasticity and consumer and producer surplus to explain the impact of a minimum wage policy on the welfare of low skilled workers. Use of same tools to explain effectiveness and impact of price controls to help low-income groups deal with rising inflation. The relationship between the concept of elasticity, ESG policies, and firm's revenue: a price increase by a company that integrates sustainability into its processes, ESG-conscious consumers have a very inelastic demand, and consumers without such awareness have a more elastic demand.

### Elasticity and its application

*Book Chapters: Mankiw, G: Chapter 5: Elasticity and its Application (See Bibliography)*

*Book Chapters: Krugman, P: Chapter 6: Elasticity (See Bibliography)*

## SESSION 5 (LIVE IN-PERSON)

### Sustainability Topics:

- Environment
- Governance
- Social Challenge

E, S: efficiency, equality; G: Consumer and Producer surplus; welfare, deadweight loss

### Consumers, Producers, and the Efficiency of Markets

*Book Chapters: Mankiw, G: Chapter 7: Consumers, Producers, and the Efficiency of Markets (See Bibliography)*

*Book Chapters: Krugman, P: Chapter 4: Consumer and Producer Surplus (See Bibliography)*

## SESSION 6 (LIVE IN-PERSON)

### Sustainability Topics:

- Environment
- Governance
- Social Challenge

### How economists use data.

*Multimedia Material: Empirical Project 7. Supply and Demand. (Doing Economics)*

*Book Chapters: Mankiw, G: How Economists use data (See Bibliography)*

## SESSION 7 (LIVE IN-PERSON)

### Sustainability Topics:

- Environment
- Governance
- Social Challenge

E,S,G: Price ceilings and floors, tax incidences; Some examples: minimum wage and worker satisfaction (purpose); taxes and environmental protection; the EU Green Deal and incentives; tariffs and ban on goods made with child labor, poor working conditions, and human rights violation, etc.

### **Supply, Demand and Government Policies**

*Book Chapters: Mankiw, G: Chapter 6: Supply, Demand and Government Policies (See Bibliography)*

*Book Chapters: Krugman, P: Chapter 5: Price Controls and Quotas: Meddling with Markets (See Bibliography)*

## **SESSION 8 (LIVE IN-PERSON)**

### **Sustainability Topics:**

- Environment
- Governance
- Social Challenge

E,S,G: Price ceilings and floors, tax incidences; **Some examples:** minimum wage and worker satisfaction (purpose); taxes and environmental protection; the EU Green Deal and incentives; tariffs and ban on goods made with child labor, poor working conditions, and human rights violation, etc.

### **Application: The Cost of Taxation**

*Book Chapters: Mankiw, G: Chapter 8: Application: The Cost of Taxation (See Bibliography)*

*Book Chapters: Krugman, P: Chapter 7: Taxes (See Bibliography)*

## **SESSION 9 (LIVE IN-PERSON)**

### **Sustainability Topics:**

- Environment
- Governance
- Social Challenge
- Economic Development

E, S: concept of externality, transaction costs, Coase Theorem; G; internalizing the externality; Pigouvian tax, standards and tradable emission permits. **Some examples:** new private (responsible investing and consumption, and voluntary integration of ESG dimensions into company strategy; reputation) and public (tradable pollution permits) solutions to internalize externalities.

### **Externalities**

*Book Chapters: Mankiw, G: Chapter 10: Externalities (See Bibliography)*

*Book Chapters: Krugman, P: Chapter 16: Externalities (See Bibliography)*

## **SESSION 10 (LIVE IN-PERSON)**

### **Sustainability Topics:**

- Environment
- Governance
- Social Challenge

### **Public Goods and Common Resources**

The whole topic covers sustainability topics

*Book Chapters: Mankiw, G: Chapter 11: Public Goods and Common Resources (See Bibliography)*

*Book Chapters: Krugman, P: Chapter 17: Public Goods and Common Resources (See Bibliography)*

## **SESSION 11 (LIVE IN-PERSON)**

### **Sustainability Topics:**

- Environment
- Governance
- Social Challenge
- Economic Development

### **Environmental, Social and Corporate Governance (ESG)?**

The whole topic covers sustainability topics??

## **SESSIONS 12 - 13 (LIVE IN-PERSON)**

### **Sustainability Topics:**

- Environment
- Social Challenge

E, S: Consumer choice in products which generate negative externalities. Some examples: New ways of consumption, awareness of circular economy, consideration of financial and non-financial factors in consumer decisions. Rational but human too (reasons people might rationally choose a worse payoff): concerns about fairness and sustainability.

### **Consumer Choice**

*Book Chapters: Mankiw, G: Chapter 21: Consumer Choice (See Bibliography)*

*Book Chapters: Krugman, P: Chapter 10: The Rational Consumer (See Bibliography)*

## **SESSION 14 (LIVE IN-PERSON)**

### **Sustainability Topics:**

- Governance
- Social Challenge
- Economic Development

### **Behavioral Economics**

*Book Chapters: Mankiw, G: Chapter 22: Frontiers of Micro: Behavioral Economics (See Bibliography)*

*Book Chapters: Krugman, P: Chapter 9: Decision Making by Individuals and Firms: Behavioral Economics (See Bibliography)*

## **SESSION 15 (LIVE IN-PERSON)**

### **Sustainability Topics:**

- Environment
- Governance
- Social Challenge

### **Midterm Exam**

## SESSIONS 16 - 17 (LIVE IN-PERSON)

### Sustainability Topics:

- Environment
- Governance
- Social Challenge

E: Implicit costs and opportunity cost; S: Implicit costs and opportunity cost; G: Economies of scale. Some examples: The concept of double materiality. Companies can use ESG to mitigate risk and thereby reduce the cost of capital, financing, and debt. Suitable corporate governance structures (lean and efficient boards), sound environmental management (avoiding toxic spills), and employee welfare are effective ways to reduce borrowing costs and the cost of debt. Better ESG instruments minimize the cost of equity.

### The Cost of Production

*Book Chapters: Mankiw, G: Chapter 13: The Cost of Production (See Bibliography)*

*Book Chapters: Krugman, P: Chapter 11: Behind the Supply Curve: Inputs and Costs (See Bibliography)*

## SESSIONS 18 - 19 (LIVE IN-PERSON)

### Sustainability Topics:

- Environment
- Governance
- Social Challenge

E: Implicit costs and opportunity cost; S: Implicit costs and opportunity cost; G: Economies of scale

### Firms in Competitive Markets

*Book Chapters: Mankiw, G: Chapter 14: Firms in Competitive Markets (See Bibliography)*

*Book Chapters: Krugman, P: Chapter 12: Perfect Competition and the Supply Curve (See Bibliography)*

## SESSIONS 20 - 21 (LIVE IN-PERSON)

### Sustainability Topics:

- Environment
- Governance
- Social Challenge

E, S. Market power; G: Antitrust policies. **Some examples:** Explanation of the impact on society of the use of market power by firms. Discussion of both monopolistic and monopsonistic cases in the context of life-saving medicines and minimum wage policy. how ESG strategy affects the existence of monopolies. On the other hand, how the existence of monopolies affect sustainability

### Monopoly

*Book Chapters: Mankiw, G: Chapter 15: Monopoly (See Bibliography)*

*Book Chapters: Krugman, P: Chapter 13: Monopoly (See Bibliography)*

## SESSIONS 22 - 23 (LIVE IN-PERSON)

### Sustainability Topics:



- Environment
- Governance
- Social Challenge

E,S: the impact of marketing on the demand curve advertising and reputation; how to avoid Greenwashing. Differentiation between companies through the use of ESG strategies. The competitive advantage of sustainable companies

### **Monopolistic Competition**

*Book Chapters: Mankiw, G: Chapter 16: Monopolistic Competition (See Bibliography)*

*Book Chapters: Krugman, P: Chapter 15: Monopolistic Competition and Product Differentiation (See Bibliography)*

## **SESSIONS 24 - 26 (LIVE IN-PERSON)**

### **Sustainability Topics:**

- Environment
- Governance
- Social Challenge

E, S. Market power; G: Antitrust policies; **Some examples:** how game theory affects companies' decisions on their levels of protection of workers, their remuneration, the level of pollution they can afford, their corporate ethics, and governance.

*Book Chapters: Mankiw, G: Chapter 17: Oligopoly (See Bibliography)*

*Book Chapters: Krugman, P: Chapter 14: Oligopoly (See Bibliography)*

## **SESSION 27 (LIVE IN-PERSON)**

### **Sustainability Topics:**

- Environment
- Governance
- Social Challenge

### **Market simulation. Game**

*Multimedia Material: Classroom Games for Teaching Economics (Economics-games.com)*

*Games & Simulations: Making Money on Oil (EEN090055-U-ENG-HTM)*

## **SESSIONS 28 - 29 (LIVE IN-PERSON)**

### **Sustainability Topics:**

- Environment
- Governance
- Social Challenge

### **Final Project Presentations: Market Analysis**

## **SESSION 30 (LIVE IN-PERSON)**

### **Sustainability Topics:**

- Environment
- Governance
- Social Challenge

### Final Exam

?Includes all previous topics. ?

### EVALUATION CRITERIA

criteria	percentage	Learning Objectives	Comments
Final Exam	40 %		It consists of 40 MC questions to answer in 50 minutes. The final exam will include all the chapters. A minimum grade of 4 over 10 in the final exam is required to pass the course.
Group Work	25 %		Students, organized in teams, will be invited to participate in a final project. The outcome of the project will be presented in class. All students are expected to raise relevant questions and/or comments.
Class Participation	5 %		Two main criteria will be used in reaching judgment about class participation: frequency and relevance of comments.
Intermediate tests	20 %		Midterm Exam. It consists of 40 MC questions to answer in 50 minutes.
Other	10 %		Practical Assignments. Instructions about practical assignments are presented in class.

### RE-SIT / RE-TAKE POLICY

#### RE-SIT / RE-TAKE POLICY

Each student has four (4) chances to pass any given course distributed over two (2) consecutive academic years. Each academic year consists of two calls: one (1) ordinary call (during the semester when the course is taking place); and one (1) extraordinary call (or “re-sit”) in June/July.

Students who do not comply with the 80% attendance requirement in each subject during the semester will automatically fail both calls (ordinary and extraordinary) for that Academic Year and have to re-take the course (i.e., re-enroll) during the next Academic Year.

The Extraordinary Call Evaluation criteria will be subject to the following rules:

- Students failing the course in the ordinary call (during the semester) will have to re-sit evaluation for the course in June / July (except those students who do not comply with the attendance rule, and therefore will not have that opportunity, since they will fail both calls and must directly re-enroll in the course during the next Academic Year).
- It is not permitted to change the format nor the date of the extraordinary call exams or deadlines under any circumstance. All extraordinary call evaluation dates will be announced in advance and must be taken into consideration before planning the summer (e.g. internships, trips, holidays, etc.)
- The June/July re-sit will consist of a comprehensive evaluation of the course. Your final grade for the course will depend on the performance in this exam or evaluation only. I.e., continuous evaluation over the semester (e.g. participation, quizzes, projects and/or other grade components over the semester) will not be taken into consideration on the extraordinary call. Students will have to achieve the minimum passing grade of 5 and the maximum grade will be capped at 8.0 (out of 10.0) – i.e., “notable” in the extraordinary call.
- Re-takers: Students who failed the subject on a previous Academic Year and are now re-enrolled as re-takers in a course will need to check the syllabus of the assigned professor, as well as contact the professor individually, regarding the specific evaluation criteria for them as re-takers in the course during that semester (ordinary call of that Academic Year). The maximum grade that may be obtained as a retaker during the ordinary call (i.e., the 3rd call) is 10.0 (out of 10.0).

After exams and other assessments are graded by the professor (on either the ordinary or extraordinary call), students will have a possibility to attend a review session (whether it be a final exam, a final project, or the final overall grade in a given course). Please be available to attend the session in order to clarify any concerns you might have regarding your grade. Your professor will inform you about the time and place of the review session.

- Students failing more than 18 ECTS credits after the June/July re-sits will be asked to leave the Program. Please, make sure to prepare yourself well for the exams in order to pass your failed subjects.
- In case you decide to skip the opportunity to re-sit for an exam or evaluation during the June/July extraordinary call, you will need to enroll in that course again for the next Academic Year as a re-taker, and pay the corresponding tuition fees. As you know, students have a total of four (4) allowed calls to pass a given subject or course, in order to remain in the program.

## **BIBLIOGRAPHY**

### **Compulsory**

- Krugman, Paul & Wells, Robin. (2021). *Microeconomics*. 6th. McMillan education publishers. ISBN 9781319385842 (Printed)

### **Recommended**

- N. Gregory Mankiw. (2020). *Principles of Microeconomics*. 9th. Cengage. ISBN 978035713348 (Digital)

## **BEHAVIOR RULES**

Please, check the University's Code of Conduct [here](#). The Program Director may provide further indications.

## **ATTENDANCE POLICY**

Please, check the University's Attendance Policy [here](#). The Program Director may provide further indications.

## **ETHICAL POLICY**

Please, check the University's Ethics Code [here](#). The Program Director may provide further indications.

