



INTRODUCTION

Course description:

This course focuses on market structures and the conduct of firms, with an emphasis upon oligopolies. In the first part of the course we will review some basic microeconomics topics, including production theory and perfect competition. Then we will focus on the study of markets which don't satisfy the features of perfect competition. Our analysis of these markets consists on identifying which firms compete in the market, the strategic variables they use and the implications on social welfare, with emphasis on the prices paid by consumers. We cover monopoly and oligopoly markets and issues related to market failure to understand competition policy and market regulation. **A solid knowledge of intermediate microeconomics, calculus and optimization is required to successfully pass this class.**

- **Degrees:** Degree in Economics, Degree in Business administration, Degree in Economics, Leadership and Governance, Double degree in Economics + Law, Double degree in Business administration + Law
- **Number of credits:** 6 ECTS
- **Year:** 4th (Degree in Economics, Degree in Business administration), 5th (Degree in Economics, Leadership and Governance), 6th (Double degree in Economics + Law, Double degree in Business administration + Law)
- **Semester:** 1st
- **Type of course:** Required (Degree in Economics, Degree in Economics, Leadership and Governance, Double degree in Economics + Law), Elective (Degree in Business administration, Double degree in Business administration + Law)
- **Instructors:** Raúl Bajo, Javier Elizalde, Pedro Mendi.
- **Language:** English
- **Department:** Economics. School of Economics and Business
- **Lecture schedule:** Tuesday, 8.00-9.45 (Room 1 Edificio Amigos), Wednesday, 10.00-11.45 (Room M1 Edificio Amigos)

COMPETENCIES

Economics and Double degree Economics+Law

Basic Competences

CB2. Students should be able to apply their knowledge to their job or vocation in a professional way. They should be able to prove their general competencies by developing and defending arguments and solving problems within their subject area.

General Competences

CG1. Understanding the different areas of economic analysis in theory and practice.

Specific Competencies



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CE2. Using economic theory as a tool to analyze and discuss real-world situations.

CE3. Reaching conclusions relevant to economic policy based on real information.

CE5. Handling the concepts, theories and models necessary to form firm opinions about the economic context.

CE10. Using mathematical reasoning and quantitative tools to analyze the economic context.

Management and Double degree Business+Law

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PROGRAM

Chapter 1: Introduction

- Key concepts (market structure, market power, efficiency, etc.)
- Chicago School vs. Austrian School
- New Empirical Industrial Organization (NEIO)

Chapter 2: Production theory (review)

- Key concepts (TRS, returns to scale, marginal product, etc.)
- The profit maximization problem (PMP)
- The cost minimization problem (CMP)
- Cost curves

Chapter 3: Perfect competition

- Model of perfect competition
- Short-run vs. long-run analysis
- Efficiency (allocative and productive)



Chapter 4: Monopoly

- Basic monopoly analysis
- Welfare implications of monopoly
- Regulation

Chapter 5: Game Theory

- Nash Equilibrium
- Sequential games
- Repeated games

Chapter 6: Oligopoly

- The Bertrand and Cournot models
- The Stackelberg model
- Introduction to product differentiation
- Collusive behavior

Chapter 7: Advertising

- Search goods and experience goods
- Types of advertising
- Advertising in two-sided markets

Chapter 8: Price discrimination

- Price discrimination practice
- First-, second- and third-degree price discrimination
- Time price discrimination: sales

Chapter 9: Entry and exit

- Market entry
- Entry deterrence
- Predatory pricing
- War of attrition and optimal exit date
- Capacity constraints
- Dynamics of firm's size and market structure

Chapter 10: Mergers and vertical relations

- Mergers
- Acquisitions
- Horizontal mergers and vertical mergers
- Reasons for merging
- Effects of mergers
- Vertical relations in a market
- Double-margin problem

EDUCATIONAL ACTIVITIES

1. Lectures



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Each week students are expected to attend up to 180 mins of in-person lectures, which can be divided into 2 sessions of 90 mins each or 4 sessions of 45 mins each.

The dynamics of the course is mainly based on the study of the most important models of Industrial Organization developed by the economic theory to explain the role of the competitive structure of the market (monopoly, oligopoly or perfectly competitive) on market conduct and market performance paying attention to the causes and consequences of market power and to coordinated strategies taken by firms.

The lecturers will foster the student's active participation in the lectures through questions, comments and discussions of both theoretical and real-life examples.

2. Problem sets

As some of the exam questions are problems, the lecturers will provide the students with some problem sets that will help students to practice and gain confidence before the exam of each part.

3. Office hours

The lecturers will be available, at the announced times, to solve questions regarding the course both individually and in small groups.

4. Personal study

It is essential, in order to follow the explanations properly, to regularly study the lessons, as the course advances in a progressive way on the previously explained material.

5. Exams

There are three written exams in this course:

- **Partial exam** on Tuesday **October 3rd** (time: 8.00):

* Corresponds to **chapters 1-3**.

* Consists on 3-6 short questions and 1-2 long questions. Both types of questions include a combination of both theoretical concepts discussed in the lectures and/or exercises from the problem set(s).

* **33.3%** of the final grade for students who pass the exam. Those who fail the exam will re-do it in the December exam.

* Those students who pass the exam (with a grade of 5 or higher) will not have questions of chapters 1-3 in the final exam.

- **Partial exam** on Tuesday **October 31st** (time: 8.00):

* Corresponds to **chapters 4-6**.

* Consists on problems.

* **33.3%** of the final grade for students who pass the exam. Those who fail the exam will re-do it in the December exam.

* Those students who pass the exam (with a grade of 5 or higher) will not have questions of chapters 4-6 in the final exam.



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- **Final exam** on the **December** exam period (time and date TBA):

* Corresponds to **chapters 7-10** and, for **those students who fail a partial exam, it will additionally include questions on the corresponding chapters.**

* The part of the exam corresponding to chapters 7-10 consists on 20 multiple-choice questions (with 4 choices and only 1 correct answer), which is worth 70% of the grade of this part and an open question, which is worth 30% of the grade of this part. The part corresponding to chapters 1-3 (only for those students who failed the partial exam in October) has 2 short questions and 1 long question and the part corresponding to chapters 4-6 (only for those students who failed the partial exam in November) has 1 problem.

* **33.3%** of the final grade (for those students who have questions from the parts corresponding to partial exams, the grade of the December exam will be either **66.7% of the final grade, if the student failed one of the mid-terms, or 100% of the final grade, if the student failed both midterms.**

ASSESSMENT

ORDINARY ASSESSMENT

- Partial exam October 3rd: 33.3%.
- Partial exam October 31st: 33.3%.
- Final exam December: 33.3% (for those students who have questions from the parts corresponding to partial exams, the grade of the December exam will be either **66.7% of the final grade, if the student failed one of the mid-terms, or 100% of the final grade, if the student failed both midterms.**)

EXTRAORDINARY ASSESSMENT

- Final grade ordinary assessment: 30%.*
- Extraordinary exam June: 70%.

*This grade is obtained during the ordinary period of lectures and exams (September-December) and there are no extra assignments to change those grades once that period is over.

HONESTY IS THE BEST POLICY

(Ethics Committee Provisions Against Plagiarism and Copying)

We value honesty. Without it, there can be no trust or any meaningful social relations. Therefore, the School expects honesty and fairness from all of its members: professors, non-academic staff, and students.

Dishonest behaviours will be sanctioned in accordance with the [University Norms on Student Academic Discipline of August 2015](#), and include lying, cheating in exams, and plagiarism in written work. We take such violations seriously. Depending on their gravity, these offences will be dealt with by the Professor in charge of the subject, by the Dean of Students, and in very severe cases, by the Vice President for Student Affairs.

Sanctions include:



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- formal warnings
- prohibition from entering University premises for a given period
- loss of admission rights to exams
- loss of scholarships
- A failing grade for the piece of work or the whole course

OFFICE HOURS

Dr Raúl Bajo (rbajo@unav.es):

- Teaching from September 5th to September 27th
- Exam on October 3rd, 15.30 (partial)
- Chapters 1-3
- Office: 2500, Edificio Amigos (sector torre)
- Office hours: by appointment (via email)

Dr Pedro Mendi (pmendi@unav.es):

- Teaching from October 4th to October 25th
- Exam on October 31st, 15.30 (partial)
- Chapters 4-6
- Office: 4050, Edificio Amigos (sector torre).
- Office hours: Mondays and Tuesdays, from 3:15 to 4:45 pm.

Dr Javier Elizalde (jelizalde@unav.es):

- Teaching from October 31st to November 28th
- Exam on December exam period (final)
- Chapters 7-10
- Office: 2190, Edificio Amigos (sector hilera)
- Office hours: Mondays, from 12:00 noon to 1:00 pm. Thursdays, from 10:00 am to 12:00 noon.

As professors have many tasks, it is likely that, if you don't previously book an appointment, you may not find the professor in the office even during office hours. So, **you should always send an e-mail in advance to book an appointment.**

BIBLIOGRAPHY AND RESOURCES

In this course, we do not follow a specific textbook. However, those students that are looking for alternative explanations to the material that the professor presents in class, and those students that want to go beyond the material presented in class are encouraged to check some of the following books. Also sometimes scientific papers (or similar) will be recommended for reading.

- Tirole, J. (1988). The Theory of Industrial Organization.
- Varian, H. (1987). Intermediate Microeconomics.
- [Church, J. R., & R. Ware \(2000\). Industrial organization: A strategic approach.](#)
- Pepall, L., D. Richards & G. Norman (2006). Industrial Organization: Contemporary Theory and Practice.
- Shy, O. (1995). Industrial Organization: Theory and Applications.



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- Cabral, L. (2000). Introduction to Industrial Organization.

For those students who need to refresh or catch up with the maths which are required to follow the course and understand the models, we recommend to use the following titles:

- Pemberton, M. & N. Rau (2001). Mathematics for economists: An introductory textbook.
- Simon, C.P. & L. Blume (2010). Mathematics for economists.