



## PRESENTATION

**Brief description of the course:** The course offers an overview of major topics in industrial organization. The objective of the course is twofold. On one side, it focuses on the main intuition behind each economic question and theoretical model. On the other side, students will get acquainted with the currently used methods of industrial organization. This program is meant to improve students' understanding of the most important models of oligopolistic markets, as well as the implications for firm strategy and competition policy.

- **Type of degree:** Master In Economics and Finance
- **Module/Subject matter:** I. Compulsory subject matter / Economic Theory
- **ECTS:** 3.5
- **Year, semester:** year 1, Fall
- **Type:** compulsory
- **Professors:**
  - Jose Azar ([jazar@unav.es](mailto:jazar@unav.es))
    - Department of Economics, School of Economics and Business Administration
    - Office: no. 2210, second floor of the hilera (Edificio Amigos)
- **Language:** English
- **Time, venue:** Mondays and Wednesdays, 11:30 to 14:30, M3

\*Special education needs: students with special needs should contact the professors of the course.

## LEARNING OUTCOMES (Competencies)

# Understanding classic models of oligopoly

# Firm strategy

# Calculating Nash equilibrium and doing comparative statics of various models

# Implications for competition policy

### Basic and general skills

CG3 - Familiarizar a los estudiantes con los campos de investigación y con la literatura más relevante en teoría económica y finanzas.

CG5 - Dotar a los estudiantes de los fundamentos teóricos básicos para poder iniciar estudios de doctorado en economía o finanzas.

### Specific skills

CE2 - Desarrollar las principales ideas y técnicas necesarias para el análisis de modelos de oligopolio.



CE5 - Estudiar y profundizar en los modelos de organización industrial y aplicarlos al análisis de estrategias de empresas y política de competencia.

## PROGRAM

1. Jan 8: Classic models of monopoly and oligopoly
  1. Perfect competition and monopoly (BP Ch. 2.2)
3. Jan 13: Sequential choice and free entry
  1. Price competition (Bertrand oligopoly) (BP Ch. 3.1)
  2. Quantity competition (Cournot oligopoly) (BP Ch. 3.2)
  3. Sequential choice (BP Ch. 4.1)
  4. Free entry (BP Ch. 4.2)
5. Jan 15: Product differentiation
  1. Horizontal product differentiation (BP Ch. 5.2)
  2. Vertical product differentiation (BP Ch. 5.3)
  3. Empirical analysis of product differentiation (BP Ch. 5.4)
7. Jan 20: Price discrimination
  1. Types of price discrimination (BP Ch. 8.1)
  2. Group pricing (BP Ch. 8.2)
  3. Menu pricing (BP Ch. 8.3)
9. Jan 22: Bundling
  1. Monopoly bundling (BP Ch. 11.1)
  2. Tying and metering (BP Ch. 11.2)
  3. Competitive bundling (BP Ch. 11.3)
11. Jan 27: Asymmetric information and signaling
  1. Asymmetric information problems (BP Ch. 12.1)
  2. Advertising and price signals (BP Ch. 12.2)
13. Jan 29: Cartels
  1. Formation and stability of cartels (BP Ch. 14.1)
  2. Sustainability of tacit collusion (BP Ch. 14.2)
  3. Detecting and fighting collusion (BP Ch. 14.3)
15. Feb 3: Horizontal mergers
  1. Profitability of simple Cournot mergers (BP Ch. 15.1)
  2. Welfare analysis of Cournot mergers (BP Ch. 15.2)
  3. Beyond simple Cournot mergers (BP Ch. 15.3)
17. Feb 5: Entry deterrence
  1. Taxonomy of entry-related strategies (BP Ch. 16.1)
  2. Strategies affecting cost variables (BP Ch. 16.2)
  3. Strategies affecting demand variables (BP Ch. 16.3)
  4. Limit pricing (BP Ch. 16.4)
19. Feb 10: Vertically related markets
  1. The double marginalization problem (BP Ch. 17.1)
  2. Resale-price maintenance and exclusive territories (BP Ch. 17.2)
  3. Exclusive dealing (BP Ch. 17.3)
  4. Vertical oligopoly and vertical mergers (BP Ch. 17.4)

## ASSESSMENT

Grades will be based on:

1. the final exam (70%), and
2. the problem sets (30%).



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## Extraordinary call

The regular percentages will always apply. That is, in case a resit exam is needed, we will adopt the same weights as for the regular examination: 70% and 30%, respectively.

## 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 behaviors will be sanctioned by the university regulations regarding academic discipline and include lying, cheating in exams, and plagiarism in written work. We take such violations seriously. Depending on their gravity, these offenses 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:

# 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

Jose Azar ([jazar@unav.es](mailto:jazar@unav.es))

- Office no. 2210. Edificio Amigos. Floor: 2 (hilera)
- Office hours: by appointment.

## BIBLIOGRAPHY AND RESOURCES

### TEXTBOOKS



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Belleflamme, Paul, and Martin Peitz. Industrial organization: markets and strategies. Cambridge University Press, 2015.

Tirole, Jean. The theory of industrial organization. MIT press, 1988.