

| Degree programme                             | Type | Course |
|----------------------------------------------|------|--------|
| Business Administration and Management       | OP   | 4      |
| Economics                                    | OP   | 3      |
| Economics                                    | OP   | 4      |
| Contemporary History, Politics and Economics | OP   | 3      |
| Contemporary History, Politics and Economics | OP   | 4      |

## Contact lecturer

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## Prerequisites

Introduction to Economics

Microeconomics I

Mathematics I and II

## Group languages

You can consult this information at the [end](#) of the document.

## Objectives

Develop the theory to understand and analyze the behavior of firms and market outcomes.

## Learning outcomes

1. Use basic optimisation tools and the game theory, and include these elements in a theoretical model.
2. Identify the basic elements that characterise the organisation of a market.
3. Identify the consequences of the existence of information asymmetry among different economic agents on the way in which these organise themselves and on the efficiency of the relationship they establish.
4. Consider formal models which can be used to study situations with information asymmetry between the parts.
5. Solve the models formulated to obtain empirically stable predictions.
6. Analyse the operating conditions of markets and other forms of social interaction.
7. Identify the conditions and processes that generate externalities as well as the problems posed by public goods.
8. Propose the optimum design of the institutions regulating the markets and of its equipment.
9. A capacity of oral and written communication in Catalan, Spanish and English, which allows them to summarise and present the work conducted both orally and in writing.
10. Make decisions in situations of uncertainty and show an enterprising and innovative spirit.
11. Organise work, in terms of good time management and organisation and planning.
12. Demonstrate initiative and work independently when required.
13. Capacity to adapt to changing environments.
14. Students must have and understand knowledge of an area of study built on the basis of general

secondary education, and while it relies on some advanced textbooks it also includes some aspects coming from the forefront of its field of study.

15. Students must be capable of applying their knowledge to their work or vocation in a professional way and they should have building arguments and problem resolution skills within their area of study.
16. Students must be capable of communicating information, ideas, problems and solutions to both specialised and non-specialised audiences.
17. Students must develop the necessary learning skills in order to undertake further training with a high degree of autonomy.
18. Take account of social, economic and environmental impacts when operating within one's own area of knowledge.
19. Analyse the strategic interactions between participants and the effects of their actions on third-party decisions.
20. Demonstrate motivation regarding the quality of the work performed and sensitivity regarding the consequences on the environment and society.
21. Demonstrate capacity to adapt to changing environments.
22. Demonstrate initiative and work independently when required.
23. Organise work in relation to good time management and planning.
24. Value ethical commitment in professional practice.
25. Select and generate the information necessary for each problem, analyse it and take decisions based on that information.
26. Use of the available information technology and adaptation to new technological environments.
27. Communicating in oral and written form in Catalan, Spanish and English, in order to be able to summarise and present the carried out project in both forms.
28. Assess the consequences of changing a particular representation system for another.
29. Assess the different proposals of implementing public goods in terms of social welfare.
30. Analyse the distribution of costs in view of the implementation of a new shared service.
31. Apply the game theory to economic and business decisions.
32. Apply the game theory to the case of agents in a negotiation, in auctions and in macroeconomic matters.
33. Analyse the operating conditions of markets and other forms of social interaction.
34. Identify the conditions and processes that generate externalities as well as the problems posed by public goods.
35. Understand the different voting systems and the consequences of each of these.
36. Work cooperatively in multidisciplinary and multicultural teams implementing new projects.

## Contents

### SYLLABUS

#### I. INTRODUCTION

Delimitation of the subject. Examples of industrial organization issues.

#### II. PERFECT COMPETITION vs. MONOPOLY (Review of Microeconomics II)

##### II.1 Perfect competition

Short-run analysis vs. Long-run analysis

## II.2 Non-discriminating monopoly

Single-product monopoly. General loss of welfare. Regulation.

## III. EXTENSIONS OF THE MONOPOLY MODEL

### III.1 Multi-product monopolist with interdependent demands

### III.2 Price discrimination

Perfect price discrimination, 3<sup>rd</sup> degree price discrimination (independent demands), 2<sup>nd</sup> degree price discrimination: two-part tariffs

## III. MARKET POWER

Concept. Consequences. Arguments for and against concentration. Concentration measures. The relationship between concentration measures and the profits in the industry.

## IV. OLIGOPOLY WITH HOMOGENEOUS PRODUCT

### IV.1 Competition in quantities

Cournot, Stackelberg, Cartel

### IV.2 Price competition

The Bertrand's Paradox, the repeated Bertrand game and tacit collusion

## V. PRODUCT DIFFERENTIATION

### V.1 Horizontal Differentiation (Hotelling)

Fixed prices. Variable prices. Location choice.

V.2 Search and replacement costs.

## V. CAPACITY CONSTRAINTS

Efficient and random rationing rules. Capacity choice. Equivalence with Cournot.

### Learning activities and methodology

| Title                            | Hours | ECTS | Learning outcomes                  |
|----------------------------------|-------|------|------------------------------------|
| Office hours                     | 5     | 0.2  | 1, 2, 3, 4, 5, 6, 7, 8, 9          |
| Study, problem sets and readings | 90.5  | 3.62 | 1, 2, 3, 4, 5, 6, 7, 8, 11, 12, 13 |
| Theory lectures                  | 32.5  | 1.3  | 1, 2, 3, 4, 5, 6, 7, 8, 9, 13      |
| Practicum                        | 17    | 0.68 | 1, 2, 5, 6, 8, 9, 10, 11, 12       |

Teaching will be offered on campus.

- All teaching material will be available exclusively in digital format in the Moodle classroom of the course.

The proposed teaching methodology may undergo some modifications according to the restrictions imposed by the health authorities on on-campus courses.

Annotation: within the schedule set by the centre or degree programme, 15 minutes of one class will be reserved for students to evaluate their lecturers and their courses or modules through questionnaires.

## Assessment

### Continuous assessment activities

| Title               | Weight | Hours | ECTS | Learning outcomes                                                                                         |
|---------------------|--------|-------|------|-----------------------------------------------------------------------------------------------------------|
| Midterm             | 30%    | 1.5   | 0.06 | 1, 2, 3, 4, 5, 6, 7, 8, 9, 10, 11, 12, 13                                                                 |
| Final exam          | 50%    | 2     | 0.08 | 1, 2, 3, 4, 5, 6, 7, 8, 9, 10, 11, 12, 13, 19, 20, 21, 22, 23, 24, 25, 27, 28, 29, 30, 31, 32, 33, 34, 35 |
| Other ongoing tests | 20%    | 1.5   | 0.06 | 1, 2, 3, 6, 8, 9, 10, 11, 12, 13, 14, 15, 16, 17, 18, 21, 22, 23, 25, 26, 27, 36                          |

### Evaluation process

#### 1. Continuous Evaluation

The evaluation of the course will consist of a written midterm, non-liberatory, with a weight of 30%; a written

final exam, with a weight of 50%; and other non-liberatory (graded exercises solved in class or presentations in class by students), with a weight of 20%. This last evaluation item may include class attendance. The final exam will include all topics in the syllabus, including the problem sets.

A student is considered to be "No evaluable" if she/he has not participated in any of the evaluation activities. Therefore, it is considered that a student who has participated in at least one evaluation activity will no longer be eligible for the grade "No evaluable".

#### Calendar of evaluation activities

The dates of the evaluation activities (midterm exams, exercises in the classroom, assignments, ...) will be announced well in advance during the semester.

The date of the final exam is scheduled in the assessment calendar of the Faculty.

"The dates of evaluation activities cannot be modified, unless there is an exceptional and duly justified reason why an evaluation activity cannot be carried out. In this case, the degree coordinator will contact both the teaching staff and the affected student, and a new date will be scheduled within the same academic period to make up for the missed evaluation activity." Section 1 of Article 264. Calendar of evaluation activities (Academic Regulations UAB).

Students of the Faculty of Economics and Business, who in accordance with the previous paragraph need to change an evaluation activity date must process the request by filling out an Application for exams' reschedule: [e-Formulari per a la reprogramació de proves](#).

#### Grade revision process

After all grading activities have ended, students will be informed of the date and way in which the course grades will be published. Students will also be informed of the procedure, place, date and time of grade revision following University regulations.

#### Retake Process

"To be eligible to participate in the retake process, it is required for students to have been previously been evaluated for at least two thirds of the total evaluation activities of the subject." Section 2 of Article 261. The recovery (UAB Academic Regulations). Additionally, it is required that the student to have achieved an average grade of the subject greater than or equal to 3.5 and less than 5.

The date of the retake exam will be posted in the calendar of evaluation activities of the Faculty.

The grading of the retake examination will be qualitative, with two possible options: "pass" or "fail". If the grade is "pass", the numerical grade will be of 5 for the course. If the grade is "fail", the student will not pass the course and the final grade will be the existing one prior to the retake examination.

#### Irregularities in evaluation activities

In spite of other disciplinary measures deemed appropriate, and in accordance with current academic regulations, "in the case that the student makes any irregularity that could lead to a significant variation in the grade of an evaluation activity, it will be graded with a 0, regardless of the disciplinary process that can be instructed. In case of various irregularities occur in the evaluation of the same subject, the final grade of this subject will be 0". Section 11 of Article 266. Results of the evaluation. (UAB Academic Regulations).

#### 2. Comprehensive evaluation:

*By requesting the comprehensive evaluation the student waives the option of continuous evaluation.*

*The comprehensive evaluation must be requested at the Academic Management (Gestió acadèmica) of the Campus where the degree/master's degree is taught. The request must be filed according to the procedure and the deadline established by the administrative calendar of the Faculty of Economics and Business.*

*Attendance :*

- *Student attendance is mandatory on the day of the comprehensive assessment. The date will be the same as that of the final exam of the semester as per the evaluation calendar published by the Faculty of Economics and Business and approved by the Faculty's Teaching and Academic Affairs Committee. The duration of the comprehensive assessment must be specified in the characteristics of such activity.*
- *100% of the evaluation evidences must be handed in by the student on the day of the comprehensive assessment.*
- *The evaluation evidences carried out in person by the student on the same day of the comprehensive assessment must have a minimum weight of 70%.*

*The following information referring to the characteristics of the comprehensive assessment must be included. We suggest incorporating the following table:*

| <i>Evidence Type (1)</i> | <i>Weight in the final assessment (%) (2)</i> | <i>Duration of the activity</i> | <i>Is the activity that corresponds to this evaluation evidence to be carried out in person on the date scheduled for the comprehensive evaluation? (YES/NO) (3)</i> |
|--------------------------|-----------------------------------------------|---------------------------------|----------------------------------------------------------------------------------------------------------------------------------------------------------------------|
|--------------------------|-----------------------------------------------|---------------------------------|----------------------------------------------------------------------------------------------------------------------------------------------------------------------|

|             |             |  |  |
|-------------|-------------|--|--|
| <i>EXAM</i> | <i>100%</i> |  |  |
|-------------|-------------|--|--|

|              |             |  |  |
|--------------|-------------|--|--|
| <i>TOTAL</i> | <i>100%</i> |  |  |
|--------------|-------------|--|--|

*(1) Descriptive title of each piece of evidence (exam, problem sets solving, case analysis, activity carried out using specific software that the student is expected to know,...)*

*(2) Weight of the evidence in the final mark of the subject (specify the percentages of each evaluation evidence that the student must undertake)*

*(3) For each piece of evidence: Is the activity that corresponds to this evaluation evidence to be carried out in person on the date scheduled for the comprehensive evaluation? (YES/NO)*

## 2.2 RETAKE PROCEDURE :

*For the retake procedure, no distinction is made between students who have followed the continuous evaluation and those who have opted for the comprehensive evaluation. All will be re-assessed using the same test or evaluation evidence.*

## 2.3 REVIEW OF THE FINAL QUALIFICATION:

*The review of the final qualification will follow the same procedure as for the continuous evaluation.*

## Bibliography

The fundamental books to follow the course are:

- Luís Cabral, Industrial Economics, McGraw Hill, 1997.
- Jean Tirole, Theory of the Industrial Organization, Ed. Ariel, 1990.
- Xavier Martínez-Giralt (MG), Industrial Organization: Strategic Behavior and Competition, Publications Service of the Autonomous University of Barcelona, 2006.

The following are also useful:

- Hal R. Varian (Varian I), Intermediate Microeconomics: A Modern Approach, ed. Antoni Bosch, any edition.
- Hal R. Varian (Varian II), Microeconomic Analysis, 2nd. Extended edition, Ed. Antoni Bosch, 1986. (Although there are later editions, the references of the syllabus are to this edition of 1986.)

If you want to delve into one of the topics covered (optional), the following book is recommended

- L. Cabral, Readings in Industrial Organization, Blackwell 2000.

## Software

There is no need of any special software.

## Course groups and languages

The information provided is provisional until November 30. After this date, you will be able to consult the language of each group through this [link](#). To access the information, you will need to enter the course CODE

| Type of teaching           | Group | Language | Semester        | Shift         |
|----------------------------|-------|----------|-----------------|---------------|
| (TE) Theory                | 4     | English  | second semester | morning-mixed |
| (PAUL) Classroom practices | 4     | English  | second semester | morning-mixed |