

Industrial Organisation

Code: 102334
ECTS Credits: 6

Degree	Type	Year	Semester
2501572 Business Administration and Management	OT	4	0
2501573 Economics	OT	3	2
2501573 Economics	OT	4	0

The proposed teaching and assessment methodology that appear in the guide may be subject to changes as a result of the restrictions to face-to-face class attendance imposed by the health authorities.

Contact

Name: Pau Olivella Cunill
Email: Pau.Olivella@uab.cat

Use of Languages

Principal working language: english (eng)
Some groups entirely in English: Yes
Some groups entirely in Catalan: No
Some groups entirely in Spanish: No

Prerequisites

Introduction to Economics
Microeconomics I
Mathematics I and II

Objectives and Contextualisation

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

Competences

Business Administration and Management

- Capacity for adapting to changing environments.
- Capacity for independent learning in the future, gaining more profound knowledge of previous areas or learning new topics.
- Capacity for oral and written communication in Catalan, Spanish and English, which enables synthesis and oral and written presentation of the work carried out.
- Demonstrate initiative and work individually when the situation requires it.
- Organise the work in terms of good time management, organisation and planning.
- Select and generate the information necessary for each problem, analyse it and take decisions based on that information.
- Show motivation for carrying out quality work and sensitivity to the consequences for the environment and society.
- Work well in a team, being able to argue proposals and validate or reject the arguments of others in a reasoned manner.

Economics

- Analyse situation in which there is unequal information between the two sides involved.

- Capacity for adapting to changing environments.
- Demonstrate initiative and work individually when the situation requires it.
- Formulate recommendations of economic policy that improve efficiency and equity in market operations.
- Identify the processes that govern the operation of markets in different competition systems, different scenarios of interrelationship and different timescales.
- Organise the work in terms of good time management, organisation and planning.
- Select and generate the information necessary for each problem, analyse it and take decisions based on that information.
- Take decisions in situations of uncertainty, demonstrating an entrepreneurial and innovative attitude.

Learning Outcomes

1. 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.
2. Analyse the operating conditions of markets and other forms of social interaction.
3. Capacity to adapt to changing environments.
4. Capacity to continue future learning independently, acquiring further knowledge and exploring new areas of knowledge.
5. Consider formal models which can be used to study situations with information asymmetry between the parts.
6. Demonstrate initiative and work independently when required.
7. Demonstrate motivation regarding the quality of the work performed and sensitivity regarding the consequences on the environment and society.
8. Identify the basic elements that characterise the organisation of a market.
9. Identify the conditions and processes that generate externalities as well as the problems posed by public goods.
10. 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.
11. Make decisions in situations of uncertainty and show an enterprising and innovative spirit.
12. Organise work, in terms of good time management and organisation and planning.
13. Propose the optimum design of the institutions regulating the markets and of its equipment.
14. Select and generate the information needed for each problem, analyse it and make decisions based on this information.
15. Solve the models formulated to obtain empirically stable predictions.
16. Use basic optimisation tools and the game theory, and include these elements in a theoretical model.
17. Work as part of a team and be able to argue own proposals and validate or refuse the arguments of others in a reasonable manner.

Content

SYLLABUS

I. INTRODUCTION

Delimitation of the subject. Examples of industrial organization issues.

II. PERFECT COMPETITION vs. MONOPOLY

II.1 Perfect competition (Review of Microeconomics II)

Conditions favoring perfect competition. Short-run analysis vs. Long-run analysis

II.2 Non-discriminating monopoly

Single-product monopoly. General loss of welfare. Second order conditions. Multi-product monopolist: the general case; Dependent demands and independent costs ("good will effect"), independent demands and dependent costs ("learning by doing").

II.3 Discriminating monopoly

Typology. Self-selection and second degree discrimination. 3rd degree discrimination: the continuous case. Two part tariffs: The derivation of a linear demand from preferences. Two part tariffs with perfect discrimination and 2nd degree discrimination. Comparisons with the case of uniform prices.

III. MARKET POWER

Concept. Consequences. Arguments for and against concentration. Concentration measures.

IV. OLIGOPOLY WITH HOMOGENEOUS PRODUCT

IV. 1 Competition in quantities

IV.1.1 Cournot

The asymmetric case. The symmetric case with n companies.

IV.1.2 Stackelberg

The perfect subgame equilibrium in the Stackelberg model. Examples of equilibria with incredible threats.

IV.1.3 Market structure and collusion

The existence of individually rational, efficient and equitable agreements, with and without transfers.

IV.2 Price competition

IV.2.1 Bertrand's Paradox

The symmetric case. Assumptions necessary for Bertrand's paradox. The asymmetric case.

IV.2.2 The repeated Bertrand game and the tacit collusion

Finite horizon. Infinite horizon and the "trigger" strategy. Ad-hoc elimination of equilibria. The case with n firms.

V. PRODUCT DIFFERENTIATION

V.1 Horizontal Differentiation.

Examples The linear city. Fixed prices. The Hotelling model with variable prices.

V.2 Search costs and replacement costs.

V. CAPACITY CONSTRAINTS

Efficient and random rationing rules. Residual demand. Elimination of Bertrand's paradox. The capacity choice game. Equivalence with Cournot.

Methodology

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.

Activities

Title	Hours	ECTS	Learning Outcomes
Type: Directed			
Practicum	11.5	0.46	2, 1, 4, 6, 8, 7, 12, 11, 13, 15, 14, 17, 16
Theory lectures	33	1.32	2, 3, 1, 4, 8, 9, 10, 5, 13, 15, 14, 17, 16
Type: Supervised			
Office hours	5	0.2	2, 1, 4, 8, 9, 10, 7, 5, 13, 15, 16
Type: Autonomous			
Study, problem sets and readings	95.5	3.82	2, 3, 4, 6, 8, 9, 10, 7, 12, 5, 13, 15, 17, 16

Assessment

Evaluation process

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 (exercises graded in class or presentations in class by students), with a weight of 20%. 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 except the final exam will be announced well in advance during the semester.

The date of the final exam can be found in the Exam Calendar of the Facultat.

*"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 115. 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

https://eformularis.uab.cat/group/deganat_feie/application-for-exams-reschedule

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 be 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 3 of Article 112 ter. The recovery (UAB Academic Regulations).

Additionally, it is required that the student to have achieved an average grade of the subject between 3.5 and 4.9.

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.

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

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 10 of Article 116. Results of the evaluation. (UAB Academic Regulations).**

The proposed evaluation activities may undergo some changes according to the restrictions imposed by the health authorities on on-campus courses.

Assessment Activities

Title	Weighting	Hours	ECTS	Learning Outcomes
Final exam	50%	2	0.08	2, 1, 6, 8, 9, 10, 7, 12, 5, 11, 13, 15, 14, 16
Midterm	30%	1.5	0.06	2, 3, 1, 4, 8, 9, 10, 6, 12, 5, 11, 13, 15, 14, 17, 16
Other ongoing tests	20%	1.5	0.06	2, 3, 1, 4, 6, 8, 7, 12, 11, 13, 14, 17, 16

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.