COURSE DATA

DATA SUBJECT

Code: 36514
Name: Strategic decision-making in markets
Cycle: Undergraduate Studies
ECTS Credits: 6
Academic year: 2026-27

STUDY (S)

Degree	Center	Acad. year	Period
1332 - Degree in Business Intelligence and Analytics	Facultat d'Economia	3	First quarter

SUBJECT-MATTER

Degree	Subject-matter	Character
1332 - Degree in Business Intelligence and Analytics	Decisión Estratégica en Mercados	COMPULSORY

COORDINATION

CALABUIG ALCANTARA VICENTE

SUMMARY

The subject Strategic Decision in Markets is a compulsory subject taught in the first semester of the third year. The course Strategic Decision in Markets analyses the functioning of markets and economic organisations when there is private information of any of the parties with respect to variables relevant to the final result. For example, the quality of the product, the productivity of a productive factor, the production costs, the actions adopted by an agent such as, for example, the effort, etc... This type of situation with asymmetric information is the most common situation in the most important markets of modern economies such as labour markets, credit or financial markets, insurance markets and managerial or executive markets.

PREVIOUS KNOWLEDGE

RELATIONSHIP TO OTHER SUBJECTS OF THE SAME DEGREE

There are no specified enrollment restrictions with other subjects of the curriculum.

OTHER REQUIREMENTS

Students are expected to have a responsible and active attitude towards the study of this subject. This

means an effort to reason and understand the basic concepts rather than to memorise, to try to solve additional exercises and cases by oneself and an active participation in the classes.
I estimate a minimum of two hours of personal study per week.

COMPETENCES / LEARNING OUTCOMES

1332 - Degree in Business Intelligence and Analytics

Acquire basic training that can be used to learn new methods and technologies and to adapt to new situations in academic and professional areas.

Be able to apply analytical and mathematical methods for the analysis of economic and business problems.

Be able to define, solve and present complex problems systemically.

Be able to learn autonomously.

Be able to solve problems and to communicate and spread knowledge, skills and abilities, taking account of the ethical, egalitarian and professional responsibility of the activity of business intelligence and analytics.

Be able to work in a team demonstrating commitment to quality, ethics, equality and social responsibility.

Demonstrate skills for analysis and synthesis.

Know the principles of economic analysis and its application to the diagnosis and resolution of problems based on data analysis.

Reach strategic diagnoses in complex and uncertain environments using appropriate methodologies.

Students must be able to communicate information, ideas, problems and solutions to both expert and lay audiences.

Students must have developed the learning skills needed to undertake further study with a high degree of autonomy.

Understand the keys to the operation of the market and the effects of its different structures through studies based on the collection and analysis of data.

DESCRIPTION OF CONTENTS

1. Introduction

1.1 Complete and competitive markets: efficiency.
1.2 The effects of asymmetric information in markets: agency costs and incomplete contracts.
1.3 Hidden action (moral hazard problem) and hidden information (adverse selection problem).
1.4 The Principal and Agent relationship: contracts and optimal risk sharing .

2. Incentives and moral hazard
2.1 Hidden or non-contractable action: conflict between incentives and risk sharing.
2.2 The effects of limited liability, penalties and supervision.
2.3 Non-contractable outcome and renewable contracts: economic rents and efficiency wages.
2.4 Extensions: multiple tasks, multiple principals, competition between agents.
2.5 Effects of moral hazard on competitive credit and labor markets: unemployment and demand rationing. How to reduce moral hazard.

3. Private information and adverse selection
3.1 The problem of adverse selection in competitive markets.
3.2 Signals in markets. Applications to labor and financial markets.
3.3 The principal-agent relationship under asymmetric information: contracts and screening.
3.4 The efficiency and equity effects of private information in competitive markets. Policies and regulation.

4. Social norms and material incentives
4.1 Intrinsic and extrinsic motivation: the crowding-out effect.
4.2 The interaction between social norms and incentives in markets.
4.3 Equipment and social preferences in competitive markets.

5. Incomplete contracts and specific investment.
5.1 The problem of post-contractual opportunism ("hold up").
5.2 Incomplete contracts and distribution of property rights.
5.3 Reputation and the "hold up": how to distribute authority in an economic relationship.

6. Auctions
6.1. Sealed-bid auctions (first and second price auctions).
6.2 Ascending and descending auctions. Equivalence theorem in revenue.
6.3 Auctions of common value and the curse of the winner.

7. Digital economy and platform markets.
7.1 Two-sided platforms: differences with the classical market.
7.2 Innovation, information, network externalities and returns to scale: "winner takes all" (natural monopoly). Regulation and competition.
7.3 Data and employment in the platform economy

WORKLOAD

PRESENCIAL ACTIVITIES

Activity	Hours
Theory	30,00
Computer classroom practice	30,00
Total hours	**60,00**

NON PRESENCIAL ACTIVITIES

Activity	Hours

Attendance at other activities	0,00
Individual or group project	20,00
Independent study and work	50,00
Preparation of lessons	0,00
Preparation for assessment activities	20,00
Resolution of case studies	0,00
Total hours	**90,00**

TEACHING METHODOLOGY

The emphasis will be on concepts, outcomes and the relationships between them. The theory will be presented through relevant economic cases and applications rather than in an abstract way.

Students are expected to have a responsible and active attitude towards the study of this subject. This means an effort to reason and understand the basic concepts rather than to memorise, to try to solve additional exercises and cases by oneself and an active participation in the classes.

I estimate a minimum of two hours of personal study per week.

EVALUATION

The course *Strategic Decision in the markets* will be evaluated based on the consideration of the following aspects:

A written exam that corresponds to 60% of the final grade.

A 30% of the grade will correspond to the completion of three tests based on three collections of problems, cases and exercises (Practices I, II and III).

The remaining 10% will be assigned on the basis of class attendance, active participation in the classroom and other activities, and a group work of reading commentary.

The grade obtained in the second and third aspects previously mentioned, will only be computed if the student obtains a minimum of 2 points out of the 5 points of the written exam.

In case of not doing the continuous evaluation tasks, the student will only be able to obtain the points of the final exam (5 maximum), and would need to obtain a 3.5 out of 5 in the exam to pass the course.

REFERENCES

Bibliographic Material The basic material will be provided by means of Notes and Hand-outs on the different topics through Aula Virtual throughout the semester.

Additional bibliography: Macho, I. and Pérez Castrillo, D., Introducción a la Economía de la Información, Ariel, 2005. There is also an English version.

Mas-Colell, A., Whinston, M.D. and Green, J.R., Microeconomic Theory, Oxford: O.U.P., 1995. Chapters 13 and 14.

Bowles, S., Microeconomics. Behavior, Institutions and Evolution, Princeton University Press, 2004. Chapters 7, 8 and 9.

Kreps, D., Microeconomics for Managers, Princeton, 2019. Chapters 20 and 21.

Specific references for each topic will be provided throughout the course.