

Degree	Type	Year
Data Engineering	FB	1

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Teachers

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Teaching groups languages

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

Prerequisites

Basic knowledge of calculation, basic notions of economic concepts

Objectives and Contextualisation

Acquisition of a series of knowledge in relation to the conceptual framework of the company and the economic system in which it operates, as well as the mastery of the main economic and management techniques. That is, we want to cover the two aspects of knowledge of the subject, on the one hand the explanatory and clarifying aspect of the business phenomenon and on the other the normative and prescription aspect. In short, meet the two major objectives of the subject, one of a formative and general and another specific and applied.

Competences

- Demonstrate sensitivity towards ethical, social and environmental topics.
- Make a critical evaluation of work carried out.
- Plan and manage the available time and resources.
- Search, select and manage information and knowledge responsibly.
- 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.

- Understand the concepts of company, institutional and legal framework of the company, company organisation and management.

Learning Outcomes

1. Demonstrate sensitivity towards ethical, social and environmental topics.
2. Explain and analyse a company's business objectives and legal/institutional framework.
3. Explain the basic concepts of economics, business and human-resource management.
4. Identify a company's functional areas.
5. Make a critical evaluation of work carried out.
6. Plan and manage the available time and resources.
7. Search, select and manage information and knowledge responsibly.
8. 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.

Content

Chapter 1: the conceptual framework of the company and the economic system in which it operates is examined. In this sense, the nature of the company, the business function and the forms of companies are analyzed from a legal, institutional and socioeconomic perspective, dealing in the latter case, with special emphasis, the problem related to the size of the company. Next, we analyze the impact that the economic system has on the activity of the company and its repercussions on the system (social responsibility), ending with the problems of agency (ownership and control) and its impact on the objectives of the company.

Chapter 2: the functional area of production in the company is studied. First, we refer to the classical approach to production in which we examine the functions of production and costs, and then move on to the process of profit optimization, under two scenarios: perfect competition and monopoly. We then continue with the analysis of the price variation and some extensions of the optimization process in the [multi-production](#) company. Secondly, we refer to the management approach according to which revenues, costs and profits are linear, calculating the break-even point in the [single-producer](#) and [multi-production](#) company, completing the analysis with the introduction of constraints which will lead us to formulate linear programming to the company; introducing the graphical and [Simplex](#) algorithms for the resolution of specific problems.

Chapter 3: the functional area of investment and financing of the company is studied. The appropriate concepts and techniques to deal with the problem of investment on the basis of the NPV and IRR criteria are introduced, including an extensive reference to the different investment cases. The above analysis is completed with a series of aspects related to the type of amortization of the initial investment, the hypothesis of reinvestment of cash flows and its impact on acceptance-rejection decisions and investment hierarchy. We then analyse the existing financing project for all investments, determining their cash flows and their cost of capital, integrating the investment, financing and aggregate projects. Finally, the problems of other sources of short-term financing and the average cost of capital are studied.

Activities and Methodology

Title	Hours	ECTS	Learning Outcomes
Type: Directed			
Master Class: Master class in a large group in which the teacher assumes the active role	30	1.2	3, 2, 4, 8

involving the student in the learning process of the contents exposed

Presencial Seminars: Workspace in small groups in which through various activities (review of contents, work, search for information, resolution of questions and problems), it delves into the content of the subject	5	0.2	5, 7, 1, 3, 2, 4, 6, 8
Presential problems: space dedicated to the application of contents through the approach and resolution of problems	15	0.6	5, 7, 1, 3, 2, 4, 6, 8
Type: Supervised			
Preparation of problems and seminars	20	0.8	3, 2, 4, 8
Tutorials and consultations	10	0.4	5, 7, 1, 3, 2, 4, 6
Type: Autonomous			
Exam preparation	20	0.8	3, 2, 4, 8
Personal work	50	2	3, 2, 4, 8

Although the teacher will use the master class to transmit knowledge of the core aspects of each topic, the student must be an active part of the learning process (interactive master class). In this sense, initiatives will be promoted on inquiry, motivation and the process of knowledge of things, with the student having to create them and adapt them to their own learning process. The teacher will carry out tasks of orientation, guidance and reinforcement of those aspects that present more difficulty. Abundant bibliographic material will be made available to the students, including theoretical content and also exercises. To encourage critical reasoning, discussion and reflection on the part of the student, work groups will be set up in problem classes and seminars in order to complete the learning process through group discussion.

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	Weighting	Hours	ECTS	Learning Outcomes
Completion of two individual partial tests and, where appropriate, another final test, also individual, on the theoretical and practical contents of the subject	60%	0	0	3, 2, 4, 6, 8
Realization and delivery of exercise blocks for groups of students: first part	10%	0	0	5, 7, 1, 3, 2, 4, 6, 8
Realization and delivery of exercise blocks for groups of students: second part	10%	0	0	5, 7, 1, 3, 2, 4, 6, 8
Realization of seminars and controls: first part	10%	0	0	7, 3, 2, 4, 6, 8

Continuous evaluation system

Individual written tests: at the end of the second chapter, an individual written test will be carried out on chapters 1 and 2; this test will have a weight of 30% in the final grade. Also, at the end of the fourth chapter, an individual written test will be carried out on chapters 3 and 4; Likewise, this test will have a weight of 30% in the final grade.

Delivery of exercise blocks: Throughout the course, the student must submit a series of proposed exercise blocks on homogeneous parts of the subject. The blocks of exercises will be carried out by groups of between 3 and 4 students. The weight of these blocks of exercises is 20% of the final grade.

Participation: the student's participation will be assessed through a series of controls in class and the completion of the corresponding seminars. Class attendance and tutorials will also be taken into account. The weight of participation is 20% of the final grade.

Individual written tests, the delivery of exercises and participation make up the continuous assessment system. For the calculation of the final grade of continuous assessment, a minimum grade of 3 will be required for individual tests.

In the event that a student, through this continuous assessment system, obtains a grade equal to or higher than 5, but without reaching the minimum grade of 3 in any of the midterms, and does not present himself for the recovery, the final grade will be 4.5.

Recovery

Those students who have not passed the subject through continuous assessment will have a final test consisting of a retake exam for the entire subject and in some specific cases for one of the two parts (those who have a grade equal to or greater than 5 in one of the tests).

In these cases, the continuous assessment system will no longer be taken into account (the marks of the exercise blocks and the participation mark will not be taken into account). When the exam is for the entire subject, the student will have to get a 5 to pass. When the exam is for one part, the final grade will be the average mark between the mark obtained in the retake exam and the mark of the individual test already passed.

In order to participate in the recovery, the student must have previously evaluated activities that account for a minimum of 2/3 of the final grade of the subject.

To obtain honors, in addition to obtaining a minimum grade of 9, the student must have satisfactorily participated in the continuous assessment system.

A student will be considered as non-assessable if they do not appear for any of the individual tests.

Each student must go to the evaluation test scheduled by their group. In the event of not being able to attend, for whatever reason, any of the partial tests, their recovery will only be made on the day of the recovery test. No extraordinary tests will be scheduled.

Once the final grades have been presented on the Virtual Campus, a period of grade review will be opened.

Second-enrollment students must go through the same evaluation process as first-enrollment students.

Without prejudice to other disciplinary measures that are deemed appropriate, and in accordance with current academic regulations, irregularities committed by a student that may lead to a variation in the grade will be graded with a zero (0). For example, plagiarizing, copying, allowing copying, ..., an evaluation activity, will imply

suspending this evaluation activity with a zero (0). Assessment activities graded in this way and by this procedure will not be recoverable. If it is necessary to pass any of these assessment activities to pass the subject, this subject will be directly suspended, with no opportunity to make it up in the same year.

The dates of continuous evaluation and submission of works will be published on the virtual campus and may be subject to changes in programming for reasons of adaptation to possible incidents. The virtual campus will always be informed about these changes as it is understood that this is the usual platform for the exchange of information between professors and students.

Unique Evaluation System

Students opting for the unique evaluation will have a first exam covering the entire subject on the day of the second partial exam for continuous evaluation students. To pass, a minimum score of 5 will be required.

Recovery for Unique Evaluation

Students who do not pass the first exam will be able to take a recovery exam, also covering the entire subject, on the final exam dates scheduled for continuous evaluation students. The passing score will also be a 5.

Bibliography

9.1 Basic bibliography

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Materiales 218. UAB. Departamento de Empresa: "Bloques de ejercicios". Campus Virtual

9.2 Additional bibliography

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Blair, R.D. y Kenny, L.W. (1990). "Microeconomía con aplicaciones a la empresa". McGraw-Hill: Madrid.

Brealey, R.A.; Myers, S.C. y Marcus, A. J. (1996). "Principios de dirección financiera". McGraw-Hill/Interamericana de España: Madrid.

Bueno, E. (2002). "Economía de la Empresa: Análisis de las Decisiones Empresariales". Pirámide: Madrid.

Bueno, E. (1993). "Curso básico de economía de la empresa. Un enfoque de organización". Pirámide: Madrid.

Cruz, I. (1990). "Fundamentos de Marketing". Ariel: Barcelona.

Martín, M. (1993). "Métodos operativos de gestión empresarial". Pirámide: Madrid

Serra, A. (1986). "Sistema Económico y Empresa". Ariel Economía: Barcelona.

Suárez, A. S. (1988). "Decisiones óptimas de inversión y financiación en la empresa". Pirámide: Madrid.

Suárez, A.S. (1994). "Curso de economía de la empresa". Pirámide: Madrid.

Thompson, A. A. (1989). "Economía de la empresa". Prentice Hall: Acantilados de Englewood. New Jersey.

Software

The programs used in the subject are Offices (Word for word processing and Excel for solving exercises: Financial Formulas for solving equations in this area.

Prohibited use: "In this subject, the use of Artificial Intelligence (AI) technologies is not allowed in any of its phases. Any work that includes fragments generated with AI will be considered a lack of academic honesty and may lead to a partial or total penalty in the grade of the activity, or greater sanctions in serious cases."

Groups and Languages

Please note that this information is provisional until 30 November 2025. You can check it through this [link](#). To consult the language you will need to enter the CODE of the subject.

Name	Group	Language	Semester	Turn
(PAUL) Classroom practices	811	Catalan/Spanish	second semester	morning-mixed
(PAUL) Classroom practices	812	Catalan/Spanish	second semester	morning-mixed
(SEM) Seminars	811	Catalan/Spanish	second semester	morning-mixed
(TE) Theory	81	Catalan/Spanish	second semester	morning-mixed