

Degree	Type	Year
2500895 Electronic Engineering for Telecommunication	FB	2
2500898 Telecommunication Systems Engineering	FB	2

Contact

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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 calculus, algebra and functions.

Objectives and Contextualisation

The course aims to provide 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 analysis and approach of microeconomic and management techniques and models, making special emphasis on those areas linked to technology-based companies. It will seek to provide a theoretical-practical vision that students can relate to current challenges and situations in the academic and sectoral field of their studies

Competences

Electronic Engineering for Telecommunication

- Apply basic elements of economics and human resource management, organisation and planning of projects.
- Communication
- Develop ethics and professionalism.

- Develop personal attitude.
- Develop personal work habits.
- Develop thinking habits.
- Work in a team.

Telecommunication Systems Engineering

- Apply basic elements of economics and human resource management, organisation and planning of projects.
- Communication
- Develop ethics and professionalism.
- Develop personal attitude.
- Develop personal work habits.
- Develop thinking habits.
- Work in a team.

Learning Outcomes

1. "Identify, pose and resolve problems in the different functional areas of a business, production, costs, investment, funding and marketing; using the adequate business management techniques."
2. Adapt to unforeseen situations.
3. Communicate efficiently, orally and in writing, knowledge, results and skills, both professionally and to non-expert audiences.
4. Contribute to society's welfare and to sustainable development.
5. Describe the institutional and legal framework of a company.
6. Describe the institutional and legal framework of a company.
7. Develop critical thinking and reasoning.
8. Develop curiosity and creativity.
9. Develop independent learning strategies.
10. Develop scientific thinking.
11. Develop the capacity for analysis and synthesis.
12. Efficiently use ICT for the communication and transmission of ideas and results.
13. Identify and analyse the main elements of the business concept in relation to the economic system in which it operates: transaction and coordination costs, business function, types of company and social responsibility.
14. Identify and analyse the main elements of the business concept in relation to the financial system in which it operates: transaction and coordination costs, business function, types of company and social responsibility.
15. Identify problems and design solutions in the field of organisation, paying special attention to the activities of administrative management, human resources, organisational design, strategies and project planning.
16. Identify problems and design solutions in the field of organisation, paying special attention to the activities of administrative management, human resources, organisational design, strategies and project planning.
17. Identify, manage and resolve conflicts.
18. Identify, pose and resolve problems in the different functional areas of the company, production, costs, investment, funding and marketing, using suitable business management techniques.
19. Make one's own decisions.
20. Manage available time and resources.
21. Manage available time and resources. Work in an organised manner.
22. Prevent and solve problems.
23. Work autonomously.
24. Work cooperatively.
25. Work in complex or uncertain surroundings and with limited resources.

Content

- A. Economic context and productive structure
 - A.1. Economic concepts and the role of the company
 - A.2. Perfect competition: profit maximisation and cost minimisation
 - A.3. Imperfect competition: monopoly, oligopoly (competition in quantities and prices) and monopolistic competition
- B. Key concepts of investments and financing
 - B.1. Investment concepts, basic financial instruments, investment selection (VAN, IRR)
 - B.2. Investment, depreciation and cash flows
 - B.3. The sources of financing in the company and the cost of capital
- C. Technology-based business projects
 - C.1. Key concepts of innovative technology-based projects
 - C.2. Specific financing for technology-based projects
 - C.3. Intellectual and industrial protection
- D. Creation of companies
 - D.1. Strategic process and business model
 - D.2. The development of the business plan
 - D.3. Intrapreneurship or corporate entrepreneurship

Activities and Methodology

Title	Hours	ECTS	Learning Outcomes
Type: Directed			
Applied sessions	15	0.6	1, 2, 3, 5, 6, 10, 9, 11, 7, 20, 13, 14, 15, 16, 17, 18, 19, 22, 24, 23, 25
Seminars	5	0.2	1, 2, 3, 6, 11, 7, 12, 20, 13, 16, 17, 19, 22, 24, 25
Theory lectures	30	1.2	1, 5, 6, 10, 11, 7, 13, 14, 15, 16, 18
Type: Supervised			
Tutorials and consultations	6	0.24	1, 2, 3, 6, 10, 11, 7, 13, 16, 17, 19, 22
Type: Autonomous			
Exam preparation	30	1.2	1, 2, 3, 6, 10, 9, 11, 7, 20, 13, 16, 19, 22, 23
Personal work	54.5	2.18	1, 2, 3, 6, 10, 9, 11, 7, 12, 20, 13, 14, 16, 17, 18, 19, 22, 24, 23, 25

The theory lectures are focused on presenting the key contents of the topics contained in this teaching guide, presenting the theoretical vision, but at the same time seeking to identify its practical application. Practice

sessions are intended for discussion and problem solving. Finally, the seminars are intended for the presentation and discussion of practical cases.

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
Applied activities to be solved and submitted	40%	4	0.16	1, 2, 3, 4, 5, 6, 10, 9, 11, 8, 7, 12, 20, 21, 13, 14, 15, 16, 17, 18, 19, 22, 24, 23, 25
Exams	50%	3	0.12	1, 3, 5, 6, 10, 9, 11, 7, 21, 13, 15, 16, 18, 22, 23
Written discussion on the seminars	10%	2.5	0.1	1, 3, 6, 10, 11, 8, 7, 13, 16, 17, 22

Exams: There will be a single final exam, which will cover 100% of the course content. A minimum grade of 3 out of 10 is required to average with the rest of the assessment activities. If this grade is not achieved (and if the requirements mentioned below are met), it will be necessary to take the makeup exam. The weight of the exam will be 50% of the final course grade.

Completion and submission of practical activities: Throughout the course, it will be necessary to submit exercises and/or other types of practical activities, which may be (at the discretion of the teaching team) individual or group-based. The weight of these activities as a whole will be 40% of the final course grade.

Participation and discussion in seminars: Participation and written discussion in seminars will have a weight of 10% of the final course grade. In the case that a student, through this continuous assessment system, obtains a grade equal to or greater than 5, but does not achieve the minimum grade of 3 in the exam, and does not take the makeup exam, the final grade obtained will be 4.5 (and this will be recorded as such).

Retake exam: Students who have not passed the course through continuous assessment (but have obtained a minimum of 2.5 out of 10 as a final grade) will have one last test consisting of a retake exam covering the entire course. The grade obtained in this makeup exam will account for 100% of the final course grade (the other assessment activities will not be counted).

Each student must compulsorily attend the assessment test scheduled for their group. Following the current regulations, assessment tests will not be rescheduled except in one of the exceptional cases contemplated by the same regulations (this does not include exams from other institutions, previously scheduled doctor visits, trips, etc.).

Students in their second (or later) enrolment can opt for a synthesis test (single assessment) by requesting it from the course contact professor within 1 month from the start of the semester.

Without prejudice to other disciplinary measures that may be deemed appropriate, and in accordance with current academic regulations, irregularities committed by a student that could lead to a variation in the grade will be graded with a zero (0). For example, plagiarizing, copying, allowing copying, etc., in an assessment activity, will result in that activity being failed with a zero (0). Assessment activities graded in this manner and by this procedure will not be recoverable. If it is necessary to pass any of these assessment activities to pass the course, the course will be directly failed, without the opportunity to recover it in the same academic year.

The dates of continuous assessment and submissions will be published on the Moodle Classroom and may be subject to rescheduling due to adaptation to possible incidents. The change in the dates of activities within the business days of the academic calendar will not give the right to rescheduling (except as provided by the regulations). These changes will always be communicated on the Moodle Classroom as it is understood to be the usual platform for information exchange between teachers and students.

Bibliography

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Rajadell, M. (2009) "Creación de empresas". Barcelona: Universitat Politècnica de Catalunya

Pérez Gorostegui, E. (2014) "Fundamentos de economía de la empresa". 7a ed. Madrid: Centro de Estudios Ramón Areces

Serra Ramoneda, A. (2003) "Mercados, contratos y empresa". 2a ed. Bellaterra: Servei de Publicacions de la UAB

Shalley, C.E. et al. (2015) "The Oxford handbook of creativity, innovation and entrepreneurship". Oxford: Oxford University Press

Soriano Llobera, J.M. (2012) "Economía de la empresa". Barcelona: Universitat Politècnica de Catalunya

Suárez, A. S. (2014) "Decisiones óptimas de inversión y financiación en la empresa". Madrid: Pirámide

Varian, H.R. (2015) "Microeconomía intermedia". 9a ed. Barcelona: Antoni Bosch Editor

Software

No specialised software is required.

Language list

Name	Group	Language	Semester	Turn
(PAUL) Classroom practices	311	Catalan	second semester	morning-mixed
(PAUL) Classroom practices	312	Catalan	second semester	morning-mixed
(PAUL) Classroom practices	321	Catalan	second semester	afternoon

(PAUL) Classroom practices	322	Catalan	second semester	afternoon
(PAUL) Classroom practices	331	Catalan	second semester	morning-mixed
(SEM) Seminars	311	Catalan	second semester	morning-mixed
(SEM) Seminars	312	Catalan	second semester	morning-mixed
(SEM) Seminars	313	Catalan	second semester	morning-mixed
(SEM) Seminars	314	Catalan	second semester	morning-mixed
(SEM) Seminars	315	Catalan	second semester	morning-mixed
(SEM) Seminars	316	Catalan	second semester	morning-mixed
(SEM) Seminars	317	Catalan	second semester	morning-mixed
(SEM) Seminars	318	Catalan	second semester	morning-mixed
(SEM) Seminars	319	Catalan	second semester	morning-mixed
(TE) Theory	31	Catalan	second semester	morning-mixed
(TE) Theory	32	Catalan	second semester	morning-mixed
(TE) Theory	33	Catalan	second semester	afternoon