

Degree programme	Type	Course
Electronic Engineering for Telecommunications	FB	1
Telecommunication Systems Engineering	FB	1

Contact lecturer

Name : Stefan Felix Hemmen Almazor

Email : stefan.vanhemmen@uab.cat

Teaching staff

Juan Carlos Gallego Garcia

Aina Pont Farràs

Josep Maria Colomer Mur

Group languages

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

Prerequisites

None.

Objectives

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 management techniques, 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, professional and sectoral field of their studies.

Learning outcomes

Electronic Engineering for Telecommunications

- KU120 (Identify the main elements of the concept of company in relation to the economic system in which it operates: transaction costs and coordination, business function, kinds of companies and social responsibility.) Identify the main elements of the concept of company in relation to the economic system in which it operates: transaction costs and coordination, business function, kinds of companies and social responsibility.
- KU121 (Identify problems in the different functional areas of a company, such as production, costs,

- investment, financing and marketing.) Identify problems in the different functional areas of a company, such as production, costs, investment, financing and marketing.
- KU122 (Distinguish between the different issues and known solutions in the field of organization, with particular reference to administrative and financial management activities, organizational design, strategies, and project planning.) Distinguish between the different issues and known solutions in the field of organization, with particular reference to administrative and financial management activities, organizational design, strategies, and project planning.
- KU123 (Describe the contextual framework of the business sectors, taking into account aspects of industrial organization, competition and elements of contract theory.) Describe the contextual framework of the business sectors, taking into account aspects of industrial organization, competition and elements of contract theory.
- KU124 (Identify the mechanisms to protect intellectual property.) Identify the mechanisms to protect intellectual property.
- SU124 (Provide solutions to challenges linked to the business organisation, its economic context and company management.) Provide solutions to challenges linked to the business organisation, its economic context and company management.
- SU125 (Design technology-based business projects, recognising their idiosyncrasies and implementing RDI projects, while protecting their results.) Design technology-based business projects, recognising their idiosyncrasies and implementing RDI projects, while protecting their results.

Telecommunication Systems Engineering

- KU120 (Identify the main elements of the concept of company in relation to the economic system in which it operates: transaction costs and coordination, business function, kinds of companies and social responsibility.) Identify the main elements of the concept of company in relation to the economic system in which it operates: transaction costs and coordination, business function, kinds of companies and social responsibility.
- KU121 (Identify problems in the different functional areas of a company, such as production, costs, investment, financing and marketing.) Identify problems in the different functional areas of a company, such as production, costs, investment, financing and marketing.
- KU122 (Distinguish between the different issues and known solutions in the field of organization, with particular reference to administrative and financial management activities, organizational design, strategies, and project planning.) Distinguish between the different issues and known solutions in the field of organization, with particular reference to administrative and financial management activities, organizational design, strategies, and project planning.
- KU123 (Describe the contextual framework of the business sectors, taking into account aspects of industrial organization, competition and elements of contract theory.) Describe the contextual framework of the business sectors, taking into account aspects of industrial organization, competition and elements of contract theory.
- KU124 (Identify the mechanisms to protect intellectual property.) Identify the mechanisms to protect intellectual property.
- SU124 (Provide solutions to challenges linked to the business organisation, its economic context and company management.) Provide solutions to challenges linked to the business organisation, its economic context and company management.
- SU125 (Design technology-based business projects, recognising their idiosyncrasies and implementing RDI projects, while protecting their results.) Design technology-based business projects, recognising their idiosyncrasies and implementing RDI projects, while protecting their results.

Contents

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

A.4. Practical application of the economic context and productive structure based on referencing professional literature

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

B.4. Practical application of finance based on referencing professional literature

C. Technology and business projects

C.1. Key concepts of innovative projects

C.2. Specific financing for projects

C.3. Intellectual and industrial protection

C.4. Practical application of project management based on referencing professional literature

D. Entrepreneurship, leadership and marketing

D.1. Strategic process and business model

D.2. The development of the business project and marketing implications

D.3. Leadership, intrapreneurship or corporate entrepreneurship

D.4. Practical application of entrepreneurship based on referencing professional literature

Learning activities and methodology

Title	Hours	ECTS	Learning outcomes
Assignments (individual/group)	42	1.68	KU120, KU121, KU122, KU123, SU124
Office hours and consultations	2	0.08	KU120, KU121, KU122, KU123, SU124
Theory sessions	36	1.44	KU120, KU121, KU122, KU123, SU124
Studying hours - theory	38	1.52	KU120, KU121, KU122, KU123, SU124
Applications sessions	12	0.48	KU120, KU121, KU122, KU123, SU124

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. Practical sessions and seminars are dedicated to discussion and to the presentation and analysis of case studies.

Through the Virtual Campus, the teaching staff will provide information on accessing theoretical and practical content, as well as details regarding both assessed and non-assessed activities.

Annotation: Within the schedule set by the centre or degree programme, 15 minutes of one class will be reserved for student evaluation surveys.

Regarding content addressing the professional perspective, the teaching staff may suggest key professional publications and readings that will help round out the essential knowledge for each topic.

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
Final exam	50%	2	0.08	KU120, KU121, KU122, KU123, SU124
Group project, follow-up	15%	15	0.6	KU120, KU121, KU122, KU123, SU124
Continuous evaluation activities, submissions	35%	3	0.12	KU120, KU121, KU122, KU123, KU124, SU124, SU125

Continuous Assessment System

As a cross-cutting principle of the teaching-learning process, and at their discretion, teaching staff may-prior to the first assessment activity-communicate any attendance monitoring or minimum attendance requirements for theory and/or practical sessions, as well as their impact on the overall continuous assessment. This aims to foster a participatory, non-competitive climate and to guarantee equal opportunities, inclusive participation, and the creation of safe, equitable learning spaces, critical debate, and the shared construction of knowledge, thereby promoting the development of competencies related to respect for diversity, non-discriminatory communication, and a gender perspective.

Examinations: There will be a single final exam, which will cover 100% of the subject's content. A minimum mark of 3.5 out of 10 is required in order to average it with the rest of the assessment activities. If this mark is not achieved (and if the requirements mentioned below are met), it will be necessary to take the resit exam. The exam will account for 50% of the final course grade.

Completion and Submission of Practical Activities: Throughout the course, students will be required 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 overall weight of these activities will be 50% of the final course grade.

If a student, through this continuous assessment system, obtains a mark equal to or greater than 5, but does not achieve the minimum mark of 3.5 in the exam and does not attend the retake exam, the final mark will be 4.8 - Fail (and this will be recorded in the academic record).

Single Assessment System

The single assessment consists of a single exam, the mark of which will account for 100% of the course's grade. This exam will take place on the same day, at the same time and in the same rooms as the final exam for the continuous assessment. Those with a grade from 3,5 on, can opt to the retake exam.

Only students who have not participated in any continuous assessment activity may opt for the single assessment.

Retake exam

Students who have not passed the course via continuous or single assessment (but who have obtained a minimum final mark of 2.5 out of 10) will have a final opportunity consisting of a retake exam covering the entire subject. The mark obtained in this retake exam will account for 100% of the final grade for the course (other assessment activities will not be considered).

Other Considerations

Each student must attend the assessment scheduled for their group. In accordance with current regulations, assessment tests will not be rescheduled except in the exceptional cases provided for by the regulations (reasons such as exams at other institutions, previously scheduled medical appointments, travel, etc. are not included).

Only one of the activities weighted at less than 20% may be rescheduled after justified causes.

Without prejudice to other disciplinary measures deemed appropriate, and in accordance with current academic regulations, any irregularities committed by a student that could lead to a change in the grade will result in a mark of zero (0). For example, plagiarising, copying, allowing others to copy, etc., in an assessment activity will result in a mark of zero (0) for that activity. Assessment activities marked in this way and by this procedure cannot be retaken. If passing any of these assessment activities is necessary to pass the subject, the subject will be failed directly, with no opportunity to retake it in the same academic year.

The dates for continuous assessment and submissions will be published on the Moodle platform and may be subject to change due to adaptation to possible incidents. Changes to the dates of activities within the working days of the academic calendar will not entitle students to rescheduling (except as provided for in the regulations). All such changes will be communicated via Moodle, as this is considered the usual platform for information exchange between lecturers and students.

A student will be considered "Not assessable" if they have not participated in any assessment activity.

Honours Distinctions will be awarded at the discretion of the teaching staff to students who achieve a minimum final grade of 9.5.

Where applicable, assessment activities may be reviewed if a possible error is detected, by contacting the teaching staff.

The use of AI must be declared in assessment activities. Otherwise, these will not be graded and will be considered as not submitted.

Students repeating the course who wish to take the synthesis exam must notify the instructor directly (via UAB email) before the first continuous assessment test takes place; the instructor will decide whether to accept the request, and if accepted, the same criteria and dates as the continuous assessment will apply.

Students from the Degree in Computer Engineering: These students may follow the syllabus and assessment outlined in this course guide or, if they prefer, be examined (single assessment only) on the syllabus of this subject as taught in the Computer Engineering degree in the 2024/2025 academic year.

Bibliography

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Bodie, Z.; A. Kane; A. J. Marcus. Investments. 13th edition. New York: McGraw-Hill, 2024. Accés electrònic per mitjà del catàleg UAB.

Brealey, R., S.C. Myers, F. Allen and A. Edman. Principles of Corporate Finance ISE. (2022). McGraw-Hill

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Dodgson, M. et al (eds). (2013) "The Oxford handbook of innovation management". Oxford: Oxford University Press

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Gualarte, C. (2024): *Global Entrepreneurship Monitor. Informe ejecutivo Cataluña 2022-23*. IERMB. Barcelona.

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

Robbins, S. P.; Judge, T. A.(2023). *Comportamiento organizacional* (18ª edición). Pearson Educación.

Ross, S; R:W: Westerfield, J. Jaffe and B.D. Jordan. Fundamentos de Finanzas Corporativas. 13ª edicion (2023). McGraw-Hill.

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

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

Remark: this bibliography does not exhaust the readings of professional reference proposed by the teaching staff.

Software

No specialised software is required.

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	31	Catalan	second semester	morning-mixed
(TE) Theory	33	Catalan	second semester	morning-mixed
(TE) Theory	51	Catalan	second semester	afternoon
(PAUL) Classroom practices	311	Catalan	second semester	morning-mixed
(PAUL) Classroom practices	312	Catalan	second semester	morning-mixed
(PAUL) Classroom practices	331	Catalan	second semester	morning-mixed
(PAUL) Classroom practices	332	Catalan	second semester	morning-mixed
(PAUL) Classroom practices	511	Catalan	second semester	afternoon