

Degree	Type	Year
2502444 Chemistry	OT	4

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

- Adapt to new situations.
- Apply knowledge of chemistry to problem solving of a quantitative or qualitative nature in familiar and professional fields.
- Be ethically committed.
- Lead and coordinate work groups.

- Learn autonomously.
- Propose creative ideas and solutions.
- Reason in a critical manner
- Show an understanding of the basic concepts, principles, theories and facts of the different areas of chemistry.
- Show initiative and an enterprising spirit.
- Work in a team and show concern for interpersonal relations at work.

Learning Outcomes

1. Adapt to new situations.
2. Be ethically committed.
3. Identify and analyze the main elements of the company concept in relation to the economic system in which it operates.
4. 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.
5. Identify, pose and resolve problems in the different functional areas of a company, production, costs, investment, funding and marketing, using suitable business management techniques
6. Lead and coordinate work groups.
7. Learn autonomously.
8. Propose creative ideas and solutions.
9. Reason in a critical manner
10. Show initiative and an enterprising spirit.
11. Work in a team and show concern for interpersonal relations at work.

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			
Pràctiques	15	0.6	1, 3, 4, 5, 6, 8, 9, 11
Seminars	5	0.2	1, 10, 3, 4, 5, 2, 8, 9
Theory	30	1.2	1, 10, 3, 4, 5, 8, 9
Type: Supervised			
Office hours	6	0.24	1, 10, 3, 4, 5, 6, 2, 8, 9, 11
Type: Autonomous			
Personal work	58.5	2.34	10, 3, 4, 5
Studying for exams	27	1.08	1, 7, 10, 3, 4, 5, 6, 2, 8, 9, 11

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

Continous Assessment Activities

Title	Weighting	Hours	ECTS	Learning Outcomes
Applied activities to be solved and submitted	40	3	0.12	1, 7, 3, 4, 5, 2, 8, 9
Final exam	5	3	0.12	1, 3, 4, 5, 2, 8, 9
Seminars: disucssion	10	2.5	0.1	1, 7, 10, 3, 4, 5, 6, 2, 8, 9, 11

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).

To take part in the retake, students must have previously been assessed in a set of activities whose weight is equivalent to a minimum of two-thirds of the total grade of the subject or module. Therefore, the student will obtain the qualification of "Not Assessable" when the assessment activities carried out have a weighting of less than 67% in the final qualification.

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.).

Single assessment: Following the academic regulations established by the Autonomous University of Barcelona (Governing Council Agreement of July 7, 2022, Article 265), the Permanent Board of the Faculty of Sciences approved the document "Application of the Single Assessment in the Faculty of Sciences" on March 30, 2023. This document contains the unique assessment procedure adapted to the Faculty and includes this subject among those that must offer students the possibility to take to this system, following the established application schedule. The single evaluation request constitutes, in accordance with the established regulations, the irrevocable waiver of the right to continuous evaluation. Students who have accepted the single assessment modality will have to take a final test which will consist of an exam corresponding to the entire syllabus of the subject to be taken on the day when the students accepted in the continuous assessment system they take the final exam. The student's grade will be the grade of this test, corresponding to 100%, so the subject is approved with a final grade of at least 5 out of 10. The structure of the test, which will include all the planned syllabus and the related activities collected in the Virtual Campus, will follow the same characteristics established for the final exam.

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

Basic bibliography

Martin P. (2021). "Organización y gestión en industrias químicas" Síntesis.

Torres M., Vallet T. i Plana M. (2006). "Gestió d'empreses per a enginyers: activitats per desenvolupar coneixements i competències". URV.

Additional bibliography

Gómez-Mejía L.R, Balkin D.B i Cardy R.L. (2016). "Gestión de recursos humanos", 8a edició. Pearson.

Navas J.E. i Guerras L.M. (2016). "Fundamentos de dirección estratégica de la empresa". Civitas.

Thompson A.R., Strickland A.J i Gamble J.E. (2015). "Administración estratégica", 19 edició, McGraw-Hill.

Montoro M.A., Díez E. i Martín G. (2000). "Fundamentos de administración de empresas". Civitas.

González J.L. (2020). "Empresa:marco conceptual y técnicas de gestión por áreas funcionales". UAB.

Suárez A.S., Rojo J. i Suárez P. (2013). "Decisiones óptimas de inversión y financiación en la empresa". Pirámide.

Santemas M., Merino M.J., Sánchez J. i Pintado T. (2017). "Fundamentos de marketing". 2a edició, Pirámide.

Render B. i Heizer J. (2015). "Dirección de la producción y de operaciones. Decisiones estratégicas". 11 edició, Pearson.

Brealey R.A.; Myers S.C. i Franklin A (2015) "Principios de finanzas corporativas". McGraw-Hill/Interamericana de España.

Digital bibliography

Infonomia (<https://www.instituteofnext.com>)

The Manager (<https://www.themanager.org>)

ESADE Knowledge (<https://dobetter.esade.edu>)

1 2 Manage (<https://www.12manage.com>)

ACCIO (<https://accio.gencat.cat>)

Strategos (<https://strategos.com>)

Equipos y Talento (<https://https://www.equiposytalento.com/>)

Software

N/A

Language list

Name	Group	Language	Semester	Turn
(PAUL) Classroom practices	211	Catalan	second semester	morning-mixed

(PAUL) Classroom practices	212	Catalan	second semester	morning-mixed
(SEM) Seminars	211	Catalan	second semester	morning-mixed
(SEM) Seminars	212	Catalan	second semester	morning-mixed
(TE) Theory	21	Catalan	second semester	morning-mixed

PROVISIONAL