Universitat Autònoma de Barcelona

2023/2024

Business Economics and Administration

Code: 102500
ECTS Credits: 6

Degree	Type	Year	Semester
2502444 Chemistry	OT	4	2

Contact

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Teaching groups languages

You can check it through this link. To consult the language you will need to enter the CODE of the subject. Please note that this information is provisional until 30 November 2023.

Teachers

Juan Carlos Gallego Garcia

Prerequisites

No previous knowledge is required, although it would be interesting to have a general knowledge of the company concept and main functions.

Objectives and Contextualisation

Chemists need to know the basic concepts of economics and business, as well as the role they play in the economy market, organization and management, in order to make the right decisions in a professional future. In fact, the subject has fundamental objective to enable workers and future managers and directors linked to the chemical sector to understand needs and responsibilities they will have in terms of managing the different areas of the company and the talent that is part of it, in especially of people, of different professional levels, who will be in charge. An important aspect to consider is to understand that the people are the greatest source of competitive advantage in organizations, while it is necessary to acquire knowledge about the operation of companies and the strategies that direct them at different levels.

The specific objectives to be worked on within the subject include:

- Identify the key factors of the company's organization.

- Intervene to achieve maximum efficiency and effectiveness in the organization.

- Understand the nature of the company and the entrepreneur.

- Make the right strategic decisions and apply them in a competitive environment.

- Manage the different processes and operations of a company in commercial activity.

- Understand and consider the operation of the different areas of the company.

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

Chapter 1. CONCEPTUAL FRAMEWORK OF THE COMPANY AND THE CHEMICAL SECTOR

1. Concept of Company and Entrepreneur

2. Organizational Structure of Companies

3. The Chemical Sector: reality and future

Chapter 2. STRATEGY AND STRATEGIC MANAGEMENT OF THE COMPANY

1. Strategic Orientation of the Company

2. Competitive Strategies and Value Creation

3. Corporate Strategies of the Company

Chapter 3. FUNCTIONAL AREA OF PRODUCTION: LOGISTICS AND PRODUCTION MANAGEMENT

1. Productive Structure of the Company

2. Logistics and Supply

3. Production Function and Business Results

Chapter 4. FUNCTIONAL AREA OF FINANCE: INVESTMENT AND ECONOMIC AND FINANCIAL MANAGEMENT

1. Economic and Financial Structure of the Company

2. Sources of Financing for Companies

3. Valuation and Business Investment Criteria

Chapter 5. FUNCTIONAL AREA OFSALES: MARKETING, MARKET ORIENTATION AND SALES

1. The Market and the Commercial Function of the Company

2. Market Research and Segmentation

3. Operational Marketing and Marketing Mix

Chapter 6. HUMAN RESOURCES FUNCTIONAL AREA: TALENT AND PEOPLE MANAGEMENT

1. Organizational Structure and People Management

2. Recruitment, Selection and Socialization of Human Resources

3. Compensation and Careers

Methodology

To achieve the objectives of the course, the methodology will incorporate:

1. Theoretical classes

The aim of the theoretical classes is to offer a vision of business management in which the main strategic aspects and functional and deepen the compensation of the processes that are carried out in the different areas of the companies. These sessions will include explanations on the board, slides and videos, problem solving and team work to answer examples specific during the sessions.

2. Preparation and presentation of business cases

The purpose is to develop the necessary skills to apply the concepts acquired in specific situations, from the knowledge of the chemical sector in Catalonia and the existing companies in our territory. The work to be done includes the preparation of a case study on the management policies of a real company in the chemical sector, incorporating the concepts developed during the course.

3. Practical sessions of presentation and discussion of news, interviews and real cases

The orientation of these sessions is based on the promotion of group work and the personal skills that will be necessary towards the professional development, including leadership, negotiation, public presentation, planning or customer orientation. These sessions will include the presentation of news, interviews and practical cases that will support the concepts established in the theoretical sessions.

4. Practical exercise resolution sessions

The solution of numerical type problems linked to business management is incorporated and will include part of the content theory, practical examples and the class solution of problems that the students will have to solve beforehand in groups.

5. Seminar sessions on specialized topics in business management

The aim is to develop the skills of reflection and analysis on the most important current aspects linked tothe chemical sector and the associated business management, incorporating the presentation of the subject, the completion of prepared questions and the discussion of the thematic, with analysis of the key points and the corresponding debate. The linked activities will be developed in working groups to do more effective the operation.

10 minutes will be set aside before or after each theoretical session, so that students can express their queries or doubts have on the content of the subject, thus establishing a first tutoring system that can be deepened later through appointments established in the teacher's office.

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.

Activities

Title	Hours	ECTS	Learning Outcomes
Type: Directed			
Exercices: space dedicated to the application of contents through the approach and resolution of numeric problems about business concepts	15	0.6	1, 3, 4, 5, 6, 8, 9, 11
Master Class: theoretical classes in a large group in which the teacher assumes the active role involving students in the learning process of the contents exposed	30	1.2	1, 10, 3, 4, 5, 8, 9
Seminars: workspace about specialized topics where it is possible to deepen in the subject with real application	5	0.2	1, 10, 3, 4, 5, 2, 8, 9
Type: Supervised			
Preparation and discussion of news, practical cases, exercices, interviews and business case developed by the students	20	0.8	1, 10, 3, 4, 5, 6, 2, 8, 9, 11
Tutorials and consultations	5	0.2	1, 7, 10, 3, 4, 5, 2, 8, 9
Type: Autonomous			

Personal work and exam preparation	70	2.8	1, 7, 10, 3, 4, 5, 6, 2, 8, 9, 11

Assessment

Continuous evaluation system

The ongoing evaluation will have four main components:

a) Active participation - 30% of the final mark. Activities of preparation and presentation of news and interviews about business management linked to the chemical sector, cases of real chemical companies, exercises, questions linked to the content of the seminars and active participation in class discussions. At the discretion of the teachers, these activities can be carried out individually or in-group, formed by between 3 and 4 students. In the latter case, members of a group who do not demonstrate sufficient participation will receive a 0 in this part of the assessment.

b) Chemical company case - 10% of the final mark. Development of a work on organization, strategy and functional areas of a Catalan company in the chemical sector, with emphasis on the points described in the program and following a script established by the teachers. The work will be assigned by lottery among the different work groups set up in class and will involve a written part and a video presentation that will form part of the evaluation.

c) Partial release exam - 20% of the final mark. It will include the completion of a test with various formats, multiple answers, short questions and exercises, corresponding to chapters 1 and 2 included in the teaching guide for the subject. In case the grade is equal or greater than 4 points out of 10, the subject will be considered released and will not be included in the final exam. The completion of the test will follow the one established by the academic calendar of the UAB School of Engineering and will open a subsequent period of publication and review of the grades within three weeks of taking the midterm exam.

d) Final exam- 40% of the final mark. It will include taking a test with multiple formats, multiple choice, short questions and exercises, corresponding to the contents of theentire course, with the exception of the part of the partial exam for students who have obtained a 4 or more on that test. The written test will take place following the academic calendar established by the School of Engineering of the UAB.

Attendance: students can be assessed following the continuous assessment if they attend class in person at a minimum of 75% of the hours assigned to the subject, except for justified reasons. The assessment of attendance will be done through controls periodically and without prior notice, so that it is as objective as possible.

The subject is approved through continuous assessment with a final grade of at least 5 out of 10, applying the weightings of each of the assessment activities, as long as the weighted average of the grade of the partial exam and the final exam is equal to or higher than 4 out of 10. In this second case, the subject will be considered as not passed with the grade equivalent to the weighted average of the two exams.

All students have the obligation to complete the assessable tasks. The student will be considered NON-ASSESSABLE only when not have participated in any of the course evaluation activities. Therefore, a student who completes some component of continuous assessment can no longer be qualified as "non-assessable".

In order to access recovery, students must obtain a minimum average grade in all assessment activities of 3.5 out of 10. For will take part in the recovery, students who have opted for the continuous assessment system must have assessed themselves in a set of activities whose weight is equivalent to a minimum of two-thirds of the subject's total grade.

The dates of the various assessment tests and assignments will be announced well in advance during the semester Virtual Campus and may be subject to schedule changes for reasons of adaptation to possible incidents, beyond the official schedule in the exam calendar, partial, final and recovery established by the School of Engineering of the UAB.

Unique evaluation system

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 to the Faculty of Sciences*" on March 30, 2023. This document contains the single assessment procedure adapted to the Faculty and includes this subject among those that must offer students the possibility to take advantage of this system, following the calendar of request established. The single assessment request constitutes, in accordance with the established regulations, the irrevocable waiver of the right 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 completed on the day when the students enrolled in the continuous assessment system do the final exam. The student's grade will be the grade of this test, corresponding to 100%, so that the subject is approved by obtaining 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 corresponding final exam to continuous assessment students, with multiple-choice questions, short questions and varied exercises.

If the final grade does not reach a minimum of 5 out of 10, the student has another opportunity to pass the subject by taking the recovery that will be held on the same date as suspended students from the continuous assessment system.

"*The schedule of the evaluation tests may not be modified, unless there is an exceptional and duly justified reason for which an assessment cannot be carried out. In this case, the people responsible for the degrees, afterconsultation with the teaching staff and to the affected students, they will propose a new program within the corresponding academic period*" (Paragraph 1 of Article 115 of the academic regulations of the UAB). Students of the Faculty of Sciences who, in accordance with the previous paragraph, need to change one assessment date must submit the request by filling in the corresponding test rescheduling document.

In any of the two evaluation systems, if the grade corresponding to the students is 5 or higher, it will be considered passed the subject and cannot be the subject of a new assessment.

Qualification review procedure

In the course presentation document and throughout the semester through the Virtual Campus, the day and medium in which they will publish the final grades. In the same way, the procedure, place, date and time of the review will be informed subject qualifications in accordance with UAB regulations. At most, one week before the scheduled date for the final exam, students who have opted for the continuous assessment system must know all the partial grades obtained to date, in order to be aware of their situation in the subject.

Revaluation process

Those students who have not passed the subject, through one of the two assessment systems provided, will have a final test consisting of a recovery exam for the subject as a whole. In the case of the continuous evaluation system, it is no longer taking into account the generally established assessment system.

The teachers of the subject will decide the mode of this test and will include this information in the presentation of the course. The structure of the exam may follow the same arrangement as that established for the exams taken during the course or may focus on in a single modality, such as multiple-choice questions or carrying out exercises.

To access recovery, students must obtain a minimum weighted grade in all assessmentactivities equal to or higher than 3.5 out of 10. When the grade of the recovery test is equal to or higher than 5 out of 10, the final grade of the subject will be of PASS being the maximum numerical grade of 5 points out of 10. When the grade of the recovery test is lower than 5 out of 10, the final grade of the subject will be FAIL, the numerical grade being the grade of the course (or the weighted grade of the exams partial and final if the established limit of 4 out of 10 has not been exceeded), and not the recovery grade.

In the event that students have obtained a weighted grade for all assessment activities below 3.5 out of 10 or have if they fail the make-up exam with a score of less than 5 out of 10, they will be forced to repeat the subject in the following year.

In this sense, the possibility remains available to teachers to retain the qualification of the part of active participation and of the case of company established for the continuous evaluation system, so that the students of the second registration and following only have to take the partial and final exams.

Irregularities in assessment activities

Without prejudice to other disciplinary measures deemed appropriate, and in accordance with current academic regulations, "in case the student commits any irregularity that could lead to a significant variation in the grade of an assessment activity, will qualify this activity with 0, regardless of the disciplinary process that may be instituted. In case several occur irregularities in the evaluation activities of the same subject, the final grade of this subject will be 0" (Section 10 of Article 116 of the academic regulations of the UAB). Activities such as plagiarism, copying during an exam, letting yourself be copied, etc. is considered covered by these regulations, so that the linked assessment activities will not be recoverable in any case. It is necessary to pass any of these assessment activities to pass the subject; this subject will besuspended directly without recovery opportunity in the same academic year.

Assessment Activities

Title	Weighting	Hours	ECTS	Learning Outcomes
Active participation: group activities, presentations, exercices and questions	30	1	0.04	1, 10, 3, 4, 5, 6, 2, 8, 9, 11
Final exam: individual test related to theoretical and practical contents of the four last chapters of the subject (or all the chapters according to the evaluation rules)	40	2	0.08	1, 3, 4, 5, 2, 8, 9
Group preparation and video presentation of the assigned business case	10	0.5	0.02	1, 7, 10, 3, 4, 5, 6, 2, 8, 9, 11
Partial exam: individual test related to the theoretical and practical contents of the first and second chapter of the subject	20	1.5	0.06	1, 7, 3, 4, 5, 2, 8, 9

Bibliography

Basic bibliography

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Additional bibliography

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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.

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

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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

User-level office automation programs linked to the Microsoft Office package (Word, Excel, Power Point) or open source.

Some activities may include the use of databases and corporate and informational web pages