

**COURSE DATA****Data Subject**

Code	44428
Name	Business administration and management
Cycle	Master's degree
ECTS Credits	4.5
Academic year	2022 - 2023

Study (s)

Degree	Center	Acad. year	Period
2209 - M.D. in Chemical Engineering	School of Engineering	1	First term

Subject-matter

Degree	Subject-matter	Character
2209 - M.D. in Chemical Engineering	1 - Business administration and management	Obligatory

Coordination

Name	Department
FORERO ROSILLO, NICOLAS JOSE	105 - Business Administration 'Juan José Renau Piqueras'

SUMMARY

Subject Business Management and Organization is part of the Administration module and Optimization of Production and Sustainability. This course, which is taught in Spanish, is a compulsory subject of the first semester of the Master Degree in Chemical Engineering. In the curriculum consists of a total of 4.5 ECTS credits.

This course aims to address aspects of business management in different environments and knowledge of their duties, with special attention to the management of human resources, financing from cost accounting, advanced organization and management production and management of information.



PREVIOUS KNOWLEDGE

Relationship to other subjects of the same degree

There are no specified enrollment restrictions with other subjects of the curriculum.

Other requirements

Given the general nature and finalist of the subject, to successfully address the subject it is necessary that the student possesses prior knowledge obtained in the courses taken in grades that give access to the Master of Chemical Engineering, especially in matters relating Organization and Production Management and Project Development.

OUTCOMES

2209 - M.D. in Chemical Engineering

- Students should apply acquired knowledge to solve problems in unfamiliar contexts within their field of study, including multidisciplinary scenarios.
- Students should be able to integrate knowledge and address the complexity of making informed judgments based on incomplete or limited information, including reflections on the social and ethical responsibilities associated with the application of their knowledge and judgments.
- Students should communicate conclusions and underlying knowledge clearly and unambiguously to both specialized and non-specialized audiences.
- Students should demonstrate self-directed learning skills for continued academic growth.
- Adapt to structural changes in society caused by economic, energy or natural factors or phenomena in order to solve resulting problems and provide technological solutions with a high commitment to sustainability.
- Lead and manage, both technically and economically, projects, facilities, plants, companies and technological centres in the field of chemical engineering and related industrial sectors.
- Be able to analyse and synthesise for the continued progress of products, processes, systems and services while applying criteria of safety, affordability, quality and environmental management.
- Be able to access information tools in different areas of knowledge and use them properly.
- Be able to defend criteria with rigor and arguments and to present them properly and accurately.
- Be able to take responsibility for their own professional development and specialisation in one or more fields of study.
- Lead and organise companies and production and service systems by applying knowledge and skills of industrial organisation, business strategy, planning and logistics, mercantile and labour regulations, and financial and cost accounting.



- Lead and manage the organisation of work and human resources by applying criteria of industrial safety, quality management, risk prevention, sustainability and environmental management.

LEARNING OUTCOMES

Be able to identify the necessary qualities and skills of the management team or project manager, depending on the type of company or type of project. Be able to manage or lead work teams towards specific results. Know how to manage organisational change and work with appropriate time management. Be able to describe the needs of a specific job position. Design work programmes in the productive system environment. Elaborate an information management system according to the needs of the production system. Being able to apply the principles and methods of production planning. Being able to elaborate and analyse a cost accounting system.

DESCRIPTION OF CONTENTS

1. Company Management: Strategic Management and Human Resources

The classic functions of the company to strategic management: personnel management to strategic management of human resources from the Resource Based approaches and Dynamic Capabilities.

2. Development of Management Skills

Leadership requirements; the addition sequence of tasks and workshops to teamwork; pyramidal structures to networking (processes, involvement and negotiation).

3. The Financial Company: Funding sources and Cost Accounting

The financial structure of the company and management: The consequences of competitiveness strategies and finding new sources of business financing. International Standards and questioning Accounting Principles: Management Accounting.

4. Management of production

Management and Advanced Programming: covering systems programming and organization of production, from resource allocation to machines, sequencing of jobs, balanced lines and programming environments Just in Time.

**5. Information Systems**

The information flow in organizations. The integration of business processes with ERP systems management (Enterprise Resource Planning). Market evolution and ERPs. Examples.

WORKLOAD

ACTIVITY	Hours	% To be attended
Theory classes	29,00	100
Classroom practices	11,00	100
Seminars	3,00	100
Tutorials	2,00	100
Development of group work	10,00	0
Development of individual work	10,00	0
Study and independent work	34,00	0
Preparation of evaluation activities	10,00	0
Resolution of case studies	4,00	0
TOTAL	113,00	

TEACHING METHODOLOGY

The development of the course is structured around the theory classes and problems developed seminars and the realization of works.

In the theory classes lecture model is used. The teacher will present on presentation and / or explanation of the contents of each issue to highlight those key aspects of comprehension.

Practical classes of problems will be developed following two models. In some of the classes will be the teacher who solves a series of problems such that students learn to identify the essential elements of the approach and problem resolution. In other kinds of problems will be students, individually or divided into groups, which must solve similar problems under the supervision of the teacher. Once the work is completed, the problems will be collected, analyzed and corrected by the teacher or by the students themselves.

The students proposed work will relate to the subjects, consistent units in the realization of problems and practical cases of application. Some of these activities will be held in class and the rest will have a timetable for completion and delivery by the students. After correction, the students will be informed of the results and a summary of the most established areas and the most frequent failures.



EVALUATION

The evaluation of student learning will be carried out in two ways evaluation:

A) This modality is only applicable to students who have attended more than 80% of the classes. A 10% of the grade will correspond to the evaluation of the attendance and participation of the student. A 30% of the grade will correspond to the evaluation of the work or problems (individual or group). The remaining 60% will correspond to the qualification of an exam, which will consist of a theoretical and practical part. It will be a minimum requirement to pass the course to obtain more than a 5.0 in the overall exam and more than a 3.5 in each of the parts of the exam.

B) The maximum grade that can be obtained in this modality is 9.0. The grade will be obtained from the grade of an exam (70%), which will consist of a theoretical and practical part and which will take place on the official date and from the grade obtained in the assignments (20%). It will be a minimum requirement to pass the course to obtain more than a 5.0 in the overall exam and more than a 3.5 in each of the parts of the exam.

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Basic

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