

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

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|----------------------|------------------------|
| Code | 44438 |
| Name | Master's final project |
| Cycle | Master's degree |
| ECTS Credits | 15.0 |
| Academic year | 2023 - 2024 |

Study (s)

| Degree | Center | Acad. Period year |
|-------------------------------------|-----------------------|------------------------------|
| 2209 - M.D. in Chemical Engineering | School of Engineering | 2 Annual |

Subject-matter

| Degree | Subject-matter | Character |
|-------------------------------------|-----------------------------|--------------------|
| 2209 - M.D. in Chemical Engineering | 11 - Master's final project | End Labour Studies |

Coordination

| Name | Department |
|-------------------------|----------------------------|
| MARTINEZ SORIA, VICENTE | 245 - Chemical Engineering |

SUMMARY

The Master's Thesis (TFM) is a compulsory subject that students must carry out to obtain the master's degree, once obtained all the credits of the master curriculum. It should consist of conducting a comprehensive project in the area of chemical engineering (technical, professional or research). It must be publically presented and defended individually and assessed for university tribunal. The main objective of TFM is that the student synthesizes the content and skills that have been acquired previously in its studies. . Always it will be developed under the supervision of a tutor to guide students in their development. The organization, application, development, mentoring, presentation, defense, assessment and administrative management of TFM is governed by the established regulations in the University, Faculty and Master.



PREVIOUS KNOWLEDGE

Relationship to other subjects of the same degree

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

Other requirements

The presentation and defense of the TFG, requires that student has passed the rest of the subjects of the Master

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.
- Students should possess and understand foundational knowledge that enables original thinking and research in the field.
- Be able to apply the scientific method and the principles of engineering and economics to formulate and solve complex problems in processes, equipment, facilities and services in which matter changes its composition, state or energy content, these changes being characteristic of the chemical industry and of other related sectors such as pharmacology, biotechnology, materials science, energy, food or the environment.
- Conceive, plan, calculate and design processes, equipment, industrial facilities and services in the field of chemical engineering and other related industrial sectors in terms of quality, safety, economics, rational and efficient use of natural resources and environmental conservation.
- Conduct proper research, undertake the design and lead the development of engineering solutions in new or unfamiliar environments by linking creativity, originality, innovation and technology transfer.
- Communicate and discuss proposals and conclusions in specialised and non-specialised multilingual forums, in a clear and unambiguous manner.
- Have skills for independent learning in order to maintain and enhance the specific competences of chemical engineering which enable continuous professional development.



- Be able to access information tools in different areas of knowledge and use them properly.
- Be able to assess the need to complete their technical, scientific, language, computer, literary, ethical, social and human education, and to organise their own learning with a high degree of autonomy.
- 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.
- Carry out, present and defend, once all the curriculum credits have been obtained, an original individually produced piece of work before a university panel. The work will consist of a comprehensive chemical engineering project focused either on research or on professional technical practice in which the skills acquired in the teachings are synthesized.

LEARNING OUTCOMES

Mainly:

To be able to present, argue and do the oral defence of a work related to master profile, in front of a commission.

To be able to carry out a work of a technical, professional or research nature in the field of Chemical Engineering

To learn how to apply the knowledge and skills acquired to aspects related to the professional development

And also :

To know how to organize and plan the work and available resources, demonstrating ability to make decisions and versatility to adapt and solve problems that may arise during development work

To know how to communicate and transmit in an orderly manner the results of their work, both in writing and through a presentation and oral presentation thereof.

DESCRIPTION OF CONTENTS

1. Master's Thesis

Once obtained all the credits of the Masters curriculum, development, presentation and defense, of an original and individually work consisting of a comprehensive project of Chemical Engineering (professional, technical or research nature) where the skills acquired in the teachings are integrated.



WORKLOAD

| ACTIVITY | Hours | % To be attended |
|--|---------------|------------------|
| Graduation project | | 100 |
| Preparation of evaluation activities | 15,00 | 0 |
| *Realización del Trabajo Fin de Máster | 345,00 | 0 |
| Seguimiento i tutorización del Trabajo Fin de Máster | 14,00 | 0 |
| Presentación y defensa del Trabajo Fin de Máster | 1,00 | 0 |
| TOTAL | 375,00 | |

TEACHING METHODOLOGY

Individual and original work done by the student and related both, to the use and development of learned methodologies and techniques and, to the acquired skills.

EVALUATION

A committee of three members will carry out the assessment of the Master's thesis of every student. The tutor will send to the committee prior to the public defense a report with its evaluation.

The committee will evaluate: the quality of documentation (25%), the scientific and technical quality of the work (50%) and the oral presentation (25%). The committee will take into account the tutor report in assessing of the quality of documentation and the technical scientific quality of the work.