

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

<b>Code</b>	44438
<b>Name</b>	Master's final project
<b>Cycle</b>	Master's degree
<b>ECTS Credits</b>	15.0
<b>Academic year</b>	2020 - 2021

**Study (s)**

<b>Degree</b>	<b>Center</b>	<b>Acad. year</b>	<b>Period</b>
2209 - Master's Degree in Chemical Engineering	School of Engineering	2	Annual

**Subject-matter**

<b>Degree</b>	<b>Subject-matter</b>	<b>Character</b>
2209 - Master's Degree in Chemical Engineering	11 - Master's final project	End Labour Studies

**Coordination**

<b>Name</b>	<b>Department</b>
LORAS GIMENEZ, SONIA	245 - Chemical Engineering
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

## COMPETENCES (RD 1393/2007) // LEARNING OUTCOMES (RD 822/2021)

### 2209 - Master's Degree 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 (RD 1393/2007) // NO CONTENT (RD 822/2021)**

Mainly:

To have the ability to develop, present and defend before a committee a job related to the graduate profile.

To develop the ability to perform a specific or research in the field of chemical engineering work.

To apply the knowledge and skills acquired performance aspects of the profession.

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
<b>TOTAL</b>	<b>375,00</b>	

## 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.

## ADDENDUM COVID-19

This addendum will only be activated if the health situation requires so and with the prior agreement of the Governing Council

## English version is not available

### Contenidos

*Se mantienen los contenidos inicialmente recogidos en la guía docente.*

### Volumen de trabajo y planificación temporal de la docencia



Respecto al volumen de trabajo:

*Se mantienen las distintas actividades descritas en la Guía Docente con la dedicación prevista.*

Respecto a la planificación temporal de la docencia

*Para el caso de TFM con carácter experimental, si por razones los estudiantes no pueden acceder a las instalaciones y laboratorios necesarios para obtener los datos experimentales, se habilitará una opción para propiciar la elaboración del TFM y/o ampliar el periodo de elaboración y defensa del TFM.*

### **Metodología docente**

*El desarrollo de la asignatura se articula según lo establecido.*

### **Evaluación**

*Se mantiene el sistema de evaluación descrito en la Guía Docente de la asignatura en la que se han especificado las distintas actividades evaluables, así como su contribución a la calificación final de la asignatura.*