

COURSE DATA

Data Subject

Code	M11-44427
Name	Master's final project
Cycle	Master's degree
ECTS Credits	15.0

Study (s)

Degree	Center	Acad. Period year
2208 - Master's Degree in Molecular Nanoscience and Nanotechnology	Faculty of Chemistry	1 Annual

Subject-matter

Degree	Subject-matter	Character
2208 - Master's Degree in Molecular Nanoscience and Nanotechnology	11 - Master's final project	End Labour Studies

Coordination

Name	Department
CORONADO MIRALLES, EUGENIO	320 - Inorganic Chemistry

SUMMARY

Development of a research work in this area.

PREVIOUS KNOWLEDGE

Relationship to other subjects of the same degree

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

Other requirements

Previous knowledge of chemistry, physics or materials science as taught in the degrees indicated in the recommended admission profile to the master's degree is required.

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

2208 - Master's Degree in Molecular Nanoscience and Nanotechnology

- 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.
- To have the ability to develop a research team work.
- To possess the necessary knowledge and abilities to continue with future studies in the PhD program in Nanoscience and Nanotechnology.
- For students from field of knowledge (e.g. chemistry) to be able to scientifically communicate and interact with colleagues from another field (e.g. physics) in the resolution of problems laid out by the Molecular Nanoscience and Nanotechnology.
- To know the methodological approaches used in Nanoscience.
- To know the molecular nanoscience "state of the art".
- To know the "state of the art" in molecular nanomaterials with optical, electric and magnetic properties.

LEARNING OUTCOMES (RD 1393/2007) // NO CONTENT (RD 822/2021)

At the end of the training-learning period, students should be able to:

- Use the scientific databases, abstracts, full articles, documentation, etc. necessary to have a full vision of previous works, originality, interest and viability of a specific study.
- Use the experimental and theoretical methods to carry out a research work in the molecular nanoscience field.

- Work in the area of application needed by a specific study, with the maximum security for the operator and the environment.
- Produce a clear and concise report about their results obtained during their research work.
- Present and defend, in front of a specialized audience, the development, results and conclusions of the research work done.
- Explain in a clear and concise way the research work conclusions that might be of interest for a non-specialized audience.
- Demonstrate, during the development of the research work and during its exposition and defense, the ability to apply the obtained research experience in the planning and execution of future studies in different scenarios within the nanoscience field.

DESCRIPTION OF CONTENTS

1. Master dissertation.

Students will carry out an initiation to research work and will defend their master dissertation.

WORKLOAD

ACTIVITY	Hours	% To be attended
Graduation project		100
Development of group work	9,00	0
Development of individual work	30,00	0
Development of a final project	300,00	0
TOTAL	339,00	

TEACHING METHODOLOGY

The teaching methodology is based on the same methodology that must be applied to carry out a theoretical or practical research project.

Students are expected to carry out the master's thesis autonomously under the supervision of the tutor: the tasks and objectives, the collection of previous information, the methodology and design of the work, the obtaining and discussion of the results in the written report and the presentation and oral defence of the same.

EVALUATION

The evaluation of the Master's Thesis (TFM) carried out by the students will be carried out through the presentation of a report and public defence before the Master's Thesis Committee.

The examining board will be made up of three PhDs from the departments and centres related to the master's degree. As far as possible, one of the members of the examining board shall be from a university other than the student's university of registration. The tutor of a TFM may not, under any circumstances, form part of the panel responsible for the assessment of the tutored student's work.

The examining board will assess the student's ability to analyse and interpret data from a research project, to apply the scientific knowledge acquired and extrapolate it to the resolution of other scientific or technological problems, as well as their ability to write a coherent report, present it and defend it orally.
