



COURSE GUIDE 2024/25

Faculty 215 - Faculty of Chemistry

Cycle .

Degree GQUIMI20 - Bachelor's Degree in Chemistry

Year Fourth year

COURSE

26143 - Final Year Project

Credits, ECTS: 18

COURSE DESCRIPTION

DESCRIPTION

The Final Year Project is a compulsory activity of 18 ECTS credits, that will be developed throughout the fourth academic year. It is an original work, done individually under the supervision of one or more directors, whose results will be presented in a written report, and that will be defended orally before an Evaluation Committee appointed for that purpose. The objective is for the students to prove their mastery of the knowledge and skills that they have acquired throughout his/her training during the Degree.

The theme of the Project will be chosen by the student from a list of topics offered by the Faculty. Also, a specific topic may be proposed by the student, however, it must be approved by the Faculty's Degree Board. The work will be preferably of experimental type, such as an introduction to research, a bibliographic deepening in a specific topic, a design or modeling work, etc. The goal is to develop the greatest number of skills associated with the degree.

The Final Year Project must be defended and evaluated once the student has passed all the remaining subjects of the curriculum, and therefore has got all the necessary credits to obtain the degree, excepting those credits (18) that correspond to the Final Year Project.

OBJECTIVES

The Final Degree Project should be oriented to the application of the general competencies associated to the Degree, to train for the search, management, organization and interpretation of relevant data, and to develop critical, logical and creative thinking and judgment.

In particular, the main objective is to consolidate the skills acquired through the Degree, and to apply these skills in practical situations. For this purpose, a work dealing with the analysis and especially, the design and implementation of an adequate solution to a problem related to the academic formation, will be carried out.

COMPETENCIES/LEARNING RESULTS FOR THE SUBJECT

COMPETENCIES

Each student will develop those specific competencies of the Research Group in which their Final Year Project is carried out and, above all, those necessary for their initiation in the application of the principles and methodologies inherent to the research, leading to solve real problems. In that sense, the following competencies will be developed:

M03CM11: Ability to design, program and carry out experimental processes, as well as to use instrumental techniques suitable to solve different types of chemical problems.

M03CM12: To know the tools and services available in Internet which allow the search of information in the field of chemistry and other related fields.

M03CM13: To transmit, in a comprehensible way, phenomena and processes related to chemistry and related subjects, in oral expositions and/or written reports, in one of the official languages of the Basque Country or the European Union.

M03CM14: To be able to use the information and knowledge previously acquired to train in new existing or emerging fields related to chemistry.

M03CM15: Where appropriate, to know and to use Basque language in academic or professional performance areas where their employment is relevant.

M03CM16: To employ advanced mathematical and computer techniques for the planification and resolution of aspects related to chemistry (data processing, modeling ...).

As can be seen, competencies that had been marked as transversal throughout the grade, such as M03CM13, now become specific. On the other hand, the transversal competencies that must be accredited are the following:

M03CM17: To demonstrate observation, analysis and synthesis skills with a critical and self-critical capacity.

M03CM18: To demonstrate learning capacity and autonomous work capacity for the development of professional life.

M03CM19: To be able to manage, organize and plan chemical processes, applying criteria of quality and conservation of the Environment.

M03CM20: To relate chemistry to other disciplines, as well as to understand its impact on the industrial and technological society, and the importance of the industrial chemical sector.

Theoretical and Practical Contents

Given the nature of this subject, the contents cannot be described, since they are specific to each Project.



TEACHING METHODS

METHODS

The Final Year Project will be supervised by one or two Faculty members (directors). The research work will begin with a review of relevant information related to the project's topic. Then, the specific objectives of the project will be defined, and the theoretical-practical tasks will be organized. The experimental results will be discussed according to the objectives previously set. With this aim in mind, the director may suggest to the student to attend to seminars addressed to the members of the Research Group, and to appoint specific tutorials with the student. As general rule, the Final Year Project will be an experimental task, but other modalities are also advisable.

Also, the possibility exists of carrying out the Project in an external company or institution, provided that said company or institution has signed a collaboration agreement with the UPV/EHU. This type of Project is subject to the availability of companies and institutions included in the agreements. In any case, these Final Year Project proposals must be previously approved by the Faculty's Degree Board.

Before the public defense of the Final Project, the student must write a Report, which must include a brief introduction about the background, the objectives and the work plan, the results with a critical and reasoned discussion, and some conclusions. The report should contain a summary of the work and conclusions written in English. In the event that the Report is written entirely in English, the summary and conclusions will also be translated to either Spanish or Basque language.

TYPES OF TEACHING

| Types of teaching | M | S | GA | GL | GO | GCL | TA | TI | GCA |
|---|---|---|----|----|----|-----|----|----|-----|
| Hours of face-to-face teaching | | | | | | | | | |
| Horas de Actividad No Presencial del Alumno/a | | | | | | | | | |

Legend: M: Lecture-based S: Seminar GA: Applied classroom-based groups
 GL: Applied laboratory-based groups GO: Applied computer-based groups GCL: Applied clinical-based groups
 TA: Workshop TI: Industrial workshop GCA: Applied fieldwork groups

Evaluation methods

- Continuous evaluation
- End-of-course evaluation

Evaluation tools and percentages of final mark

- Written test, open questions 40%
- Oral defence 40%
- Final Year Project Director's Grading: 20%
- Grading of the Written Memory: 40%
- Grading of the Oral Defense: 40%
- TOTAL: 20%

ORDINARY EXAMINATION PERIOD: GUIDELINES AND OPTING OUT

Grading the Final Year Project is composed of three parts: firstly, the director will continuously assess the work. This evaluation will be reflected in a Director's Defense Report Form (20%), submitted to the student and to an Evaluation Committee appointed for the purpose. The Evaluation Committee is constituted by three professors, designated by the Faculty's Degree Board. Secondly, the Evaluation Committee will mark the written Report of the Final Year Project. The examiners will examine the content of the Report, its structure (objectives, introduction and/or justification, experimental part, analysis and discussion of results, conclusions and bibliography). Finally, the work will be defended in a public session in front of the Evaluation Committee, which will assess the ability for oral and written communication of the future graduate. The quality of the written report will have a weight of 40%, and the oral defense, another 40% on the final score.

Basque, Spanish or English are the languages in which the Report may be written and defended, but, this aspect must be agreed with the director of the work beforehand.

The Defenses Calendar will be established by the Faculty's Degree Board.

In case the defense is graded as Fail/No Pass, the Evaluation Committee will send a report to the student with recommendations for the improvement of the work and its subsequent evaluation. A copy of this report will also be sent to the project's director.

Should any student requests a defense of the Final Year Project in the Intranet application (GAUR), but does not deliver the Report, he or she will obtain the NO SHOW grade. If the student delivers the Report, but does not appear on the



Defenses Room, the Evaluation Committee will grant a grade of ZERO in the Oral Defense section, thus, the approval of the Final Year Project is not possible, even though the average of the Director's Rating and of the Written Report is greater than 5.0

EXTRAORDINARY EXAMINATION PERIOD: GUIDELINES AND OPTING OUT

The extraordinary assessment procedure (second chance evaluation) is the same as in the ordinary assessment.

MANDATORY MATERIALS

BIBLIOGRAPHY

Basic bibliography

The director will indicate to the student the bibliography, which will be selected according to the topic of his/her Final Year Project.

Detailed bibliography

Journals

Web sites of interest

<http://www.ehu.eus/es/web/kimika-zientziak/eskola-egutegia>

<https://www.ehu.eus/es/web/kimika-zientziak/gradu-amaierako-lana>

OBSERVATIONS