COURSE DATA

DATA SUBJECT

Code: 36902
Name: Final Degree Project in Chemical Engineering, Dual Mention
Cycle: Undergraduate Studies
ECTS Credits: 12
Academic year: 2025-26

STUDY (S)

Degree	Center	Acad. year	Period
1401 - Degree in Chemical Engineering	Escola Tècnica Superior d'Enginyeria	4	Indefinite (Individuals)

SUBJECT-MATTER

Degree	Subject-matter	Character
1401 - Degree in Chemical Engineering	TFG Basic Dual Mention	FINAL DEGREE PROJECT

COORDINATION

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SUMMARY

The Final Project is an original exercise performed individually and present and defend in front of a university tribunal, consisting of a project in the field of chemical engineering, professional in nature which synthesize and integrate the skills acquired in the education program.

The Final Project is proposed as a factor enabling the students to increase their skills, with their personal work done under the guidance of a supervisor, comprehensively covering the skills acquired during their studies.

The type of project to be developed can be very variable, but always within the guidelines set by the objectives and tasks set for the Graduated degree. In any case, we can say that the ultimate aim is to apply the skills acquired during the studies to the activity of chemical engineering.

The organisation and assessment of final degree projects (TFG) is regulated in accordance with the current regulations indicated in the Regulations for final degree projects, approved by the Governing Council of the

Universitat de València and by the instructions developed by the Escola Tècnica Superior d'Enginyeria de la Universitat de València (ETSE-UV). See more details in the section Degree Studies -> Final Degree Project on the ETSE-UV website (https://www.uv.es/etse).

PREVIOUS KNOWLEDGE

RELATIONSHIP TO OTHER SUBJECTS OF THE SAME DEGREE

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

OTHER REQUIREMENTS

In order to enroll the course the student must have been selected to study in the Dual Mention modality of the Chemical Engineering Degree.

The completion of the Final Project require to have passed 180 ECTS curriculum, among which necessarily include all matters scheduled in the first two years of the degree and the subject Projects (courses 'Management and organization of production' and 'Project management').

COMPETENCES / LEARNING OUTCOMES

1401 - Degree in Chemical Engineering

Ability to apply quality principles and methods.

Ability to handle specifications, regulations and standards of compliance.

Acquire knowledge of basic and technological subjects to facilitate the learning of new methods and theories, and develop the versatility to adapt to new situations.

Act autonomously in learning, making decisions based on different contexts, making judgments based on experimentation and analysis and transferring knowledge to new situations.

Analyse and evaluate the social and environmental impact of technical solutions.

Be able to understand and apply the legislation required for the practice of the profession of technical industrial engineer.

Capacity for the management of the activities that are the subject of the engineering projects described in the previous section.

Complete an original individual project and present and defend it before a university panel, consisting of a professional project in the field of chemical engineering that synthesises and integrates the skills acquired during the course.

Contribute to the design, development and implementation of solutions that respond to social demands, guided by the Sustainable Development Goals.

Demonstrate critical and self-critical thinking, considering professional ethics, moral values and social

implications of the different activities carried out throughout the degree.

Draft, sign and develop projects within the field of industrial engineering, aimed at constructing, renovating, repairing, maintaining, demolishing, manufacturing, installing, assembling or operating structures, mechanical equipment, energy systems, electrical and electronic installations, industrial facilities and plants, and manufacturing and automation processes, in accordance with the knowledge acquired through the specific technology of industrial chemistry.

Know how to communicate effectively, both orally and in writing, adapting to the characteristics of the situation and the audience.

Knowledge for carrying out measurements, calculations, valuations, appraisals, expert opinions, studies, reports, work plans and other similar work.

Organizational and planning skills in the business field, and other institutions and organizations.

Propose creative and innovative solutions to complex situations or problems, specific to the field of knowledge, to respond to diverse professional and social needs.

Solve problems with initiative, make decisions, think creatively and critically, and communicate and convey knowledge, skills and competences in the field of industrial engineering.

Work in a multilingual and multidisciplinary environment.

DESCRIPTION OF CONTENTS

1. Graduation Project Degree in Chemical Engineering

The contents of the Final Project will be different depending on the specific objectives of the project selection. May be subject to issue of Final Project all those that are typical of Chemical Engineering. Specifically, to project, among others, all kinds of industries involving chemical, physico-chemical and bioengineering, as well as their auxiliary and complementary facilities for development, production and/or packaging of chemicals; facilities where unit operations or chemical processes are involved, facilities designed to prevent environmental pollution by effluents of all kinds caused by industries and/or its services, equipment, machinery, apparatus, instruments and control systems for the chemical process industries.

WORKLOAD

PRESENCIAL ACTIVITIES

Activity	Hours
Attendance at supplementary activities	280,00
Monitoring and tutoring of the bachelor's thesis	19,00
Presentation and defence of the bachelor's thesis	1,00
Total hours	**300,00**

NON PRESENCIAL ACTIVITIES

Activity	Hours
Independent preparation of the bachelor's thesis	0,00
Preparation of the bachelor's thesis project	0,00
Total hours	**0,00**

TEACHING METHODOLOGY

Within the programming of the subjects of the Dual Mention, the types of teaching activity that will be developed will be mainly:

- Attendance to courses and seminars: optional activity proposed, where appropriate, by the student, the university tutor or the company tutor. In case it is not done, the dedication will be complemented with attendance to the internship center.

- Expository lessons of the contents of each subject. In them the topics will be developed providing a global and integrating vision, analyzing in greater detail the key aspects and of greater complexity, encouraging at all times, the participation of the student.

- Seminars or workshops.

- Tasks in the center where the internship is performed, which should include an integration of the student in the work environment of the company, receiving training from the company and providing solutions and initiative.

- Scheduled tutorials (individual or group).

- Practical activities that complement the theoretical activities in order to apply the basic concepts and expand them with the knowledge and experience acquired during the realization of the proposed work. Some of these activities will be carried out in small groups.

The company will appoint a company tutor and in turn the ETSE-UV will appoint an academic tutor. The coordination will be:

- Company tutor-academic tutor

- Company-student tutor

- Academic tutor-student

It is proposed that meetings be held, preferably face-to-face, with the following frequency:

- Company tutor-academic tutor: meetings will be held at the beginning and end of the training period. During this period, at least one meeting per month will be planned.

- Company-student tutor: at least one meeting at the beginning of the training, one every two weeks and at the end of the training period.

- Academic-student tutor: at least one meeting at the beginning of the training, fortnightly and at the end of the training period.

The tutor appointed by the company must have higher education (Bachelor, Engineering or Degree) and must obtain a favorable report from the mixed comision of dual trainining monitoring.

The tutor in the company will be in charge of coordinating the incorporation of the student, managing the planned training with the people in the company in charge of providing it, all this with sufficient time before the student's entry. In addition, he/she will ensure that the person to be trained receives the necessary equipment: PPE, work clothes, locker room assignment, etc.

The company tutor will meet, at least every two weeks, with the student to supervise his/her development and evaluate his/her work, indicating the points to be improved and his/her strong points. He/she will previously meet with the people who are providing his/her training to gather the necessary information for these follow-up meetings.

The academic tutor will ensure compliance with the training plan by the company and by the student and will mediate in case of conflict between the student and the company. Specifically, the academic tutor, through the coordination mechanisms, will ensure that the student acquires the learning outcomes foreseen in the training plan.

EVALUATION

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The Final Year Project should be defend in public session in a court composed of the tutor college student and two faculty members from areas of knowledge related to the degree appointed by the Commission of

the FYP of the degree. The student will have 15 minutes to present to the court the work developed, and then the court members will discuss with the student aspects considered relevant for their work. After the defense, the court will constitute the qualifying committee and proceed to qualify the project following the schedule of the Commission of the FYP of the degree. Basically, this scale indicates that the court together, evaluated up to 80% of the student's grade divided into the following aspects:

- Scientific-technical quality (40%)

-Quality of documentation (20%)

-Presentation and defense (20%)

In addition, the tutor shall deliver a specific assessment of the work done by the student to complete 20% of the grade. This report, evaluated between 0 and 10 points and that will take into account the Scientific-technical quality of work performed, the results of engineering project learning (ENAEE), the quality of memory and the attitude of student.

Copying or plagiarism of any activity that is part of the evaluation will result in the impossibility of passing the course, and the student will then be subject to the appropriate disciplinary procedures indicated in the *ACTION PROTOCOL FOR FRAUDULENT PRACTICES AT THE UNIVERSITY OF VALENCIA* (ACGUV 123/2020).

Anyhow, the evaluation system will be based on the guides stated in the "Reglament d'Avaluació i Qualificació de la Universitat de València per a Graus i Màsters" (ACGUV 108/2017).

REFERENCES

- Cunha, Irida da., and Ma. Teresa Cabré. El trabajo de fin de grado y de máster [Recurso electrónico]: redacción, defensa y publicación / Iria da Cunha.Teresa Cabré. Editorial UOC, 2016. https://trobes.uv.es/permalink/34CVA_UV/um6gse/alma991009392357306258

- Sánchez Asín, Antonio. Trabajos de fin de grado y de postgrado: guía práctica para su elaboración / Antonio Sánchez Asín...[et. al.]. Aljibe, 2016.

- Baelo Álvarez, Manuel. El arte de presentar trabajos académicos ante un tribunal: TFG, TFM y tesis doctoral: guía práctica para estudiantes universitarios / Manuel Baelo Álvarez. 2a ed, Círculo Rojo, 2017.

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