# COURSE DATA

## DATA SUBJECT

**Code:** 34673
**Name:** Final degree project in Computer Engineering
**Cycle:** Undergraduate Studies
**ECTS Credits:** 12
**Academic year:** 2025-26

## STUDY (S)

| Degree | Center | Acad. year | Period |
|---|---|---|---|
| 1400 - Degree in Computer Engineering | Escola Tècnica Superior d'Enginyeria | 4 | Indefinite (Individuals) |

## SUBJECT-MATTER

| Degree | Subject-matter | Character |
|---|---|---|
| 1400 - Degree in Computer Engineering | Degree Final project in Computer engineering | FINAL DEGREE PROJECT |

## COORDINATION

BARBER MIRALLES FERNANDO

# SUMMARY

The purpose of the Final Year Project (FYP) is to provide students with a global and unified vision of the planning, management and regulations applicable to any kind of multimedia computer project. This work is mandatory and poses a load of 12 ECTS credits that supposes 300 hours of student's average activity and 20 hours of tutor supervision This will be carried out at the end of undergraduate studies, once passed the other subjects. This will be an original exercise performed individually, that will be presented and defended to a university tribunal. It will consist of a project in the area of ¿¿specific technologies covered in the degree and will have professional character. It will synthesize and integrate the skills acquired in the teachings of Computer Science Engineering Degree.

The Final Year Project is a work prepared and defended individually and through which the student integrates the skills developed in the rest of the grade, facing the realization of a software engineering project in any of its possible aspects, including research and development.

The organization and evaluation of the Final Year Project (TFG) is regulated by the Reglamet de Treball Fi de Grau, approved by the Council of Government of the University of Valencia (http://www.uv.es/=sgeneral/Reglamentacio/Doc/Estudis/C61.pdf) and instructions developed by the Escola Tècnica Superior d'Enginyeria of the University of Valencia ETSE-UV (http://www.uv.

es/uvweb/ingenieria/en/estudios-grado/grados/trabajo-fin-grado/informacion-general-1285885225985.html).

# PREVIOUS KNOWLEDGE

## RELATIONSHIP TO OTHER SUBJECTS OF THE SAME DEGREE

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

## OTHER REQUIREMENTS

To carry out the Final Year Project will be required to have passed 180 ECTS curriculum, necessarily including the first two courses of the degree and the "Project Management".

# COMPETENCES / LEARNING OUTCOMES

## 1400 - Degree in Computer Engineering

G10 - Knowledge to perform measurements, calculations, assessments, appraisals, surveys, studies, reports, scheduling and other similar work in the field of computer engineering, in accordance with both the knowledge and the specific skills acquired in the degree.

G11 - Ability to analyse and assess the social and environmental impact of technical solutions, and understanding of the ethical and professional responsibility of a computer engineer.

G12 - Knowledge and application of the basic principles of economics and human resource management, project organisation and planning, and legislation, regulation and standardisation in the field of computer projects, in accordance with both the knowledge and the specific skills acquired in the degree.

G1 - Ability to design, write, organise, plan, develop and sign projects in the field of computer engineering aimed at the design, development or exploitation of computer systems, services and applications.

G2 - Ability to lead project activities in the field of information technology, in accordance with both the knowledge and the specific skills acquired in the degree.

G3 - Ability to design, develop, evaluate and ensure the accessibility, ergonomics, usability and security of computer systems, services and applications, and of the information that these manage.

G4 - Ability to define, evaluate and select hardware and software platforms for the development and implementation of computer systems, services and applications, in accordance with both the knowledge and the specific skills acquired in the degree.

G5 - Ability to design, develop and maintain computer systems, services and applications using software engineering methods as an instrument for quality assurance, in accordance with both the knowledge and the specific skills acquired in the degree.

G6 - Ability to design and develop computer systems and centralised or distributed computer architectures which integrate hardware, software and networks, in accordance with both the knowledge and the specific skills acquired in the degree.

G7 - Ability to recognise, understand and apply the legislation required in the professional practice of computer engineering and to deal with mandatory specifications, regulations and standards.

G8 - Knowledge of basic subject areas and technologies that serve as a basis for learning and developing new methods and technologies, and of those which provide versatility to adapt to new situations.

G9 - Ability to solve problems with initiative, decision making, autonomy and creativity. Ability to communicate and transmit the knowledge, skills and abilities of a computer engineer.

PFG1 - Original project to be completed individually and presented and defended before a university panel. The project must focus on professional practice in the field of the specific technologies of computer engineering and must synthesise and integrate the skills acquired in the degree.

## DESCRIPTION OF CONTENTS

### 1. Final Year Project

The Final Year Project is proposed as an opportunity for students to increase their skills in areas that are not easily acquired in the context of typical classroom lessons, such as: interacting with clients, developing formal specifications of problems, elaborating specialized literature review on a topic, building prototypes, arising technical documentation or conducting an oral defense of ideas. The kind of project to be undertaken can be very variable, but always within the guidelines set by the objectives and competencies established for the graduate degree. In any case, we can say that the goal of the project is to apply the skills acquired during the degree to the activity of the Computer Engineering. The contents of the matter will differ depending on the specific objectives of the project selection. In general, the projects will be related to one or more of the following:
1) Analysis, design and development of systems, applications or IT services
2) Implementation of computer systems
3) The evaluation, maintenance and auditing of computer systems
4) Etc

## WORKLOAD

### PRESENCIAL ACTIVITIES

| Activity | Hours |
|---|---|
| Attendance at supplementary activities | 0,00 |
| Monitoring and tutoring of the bachelor's thesis | 19,00 |
| Presentation and defence of the bachelor's thesis | 1,00 |
| **Total hours** | **20,00** |

### NON PRESENCIAL ACTIVITIES

| Activity | Hours |
|---|---|
| Independent preparation of the bachelor's thesis | 170,00 |

| | |
|---|---|
| Preparation of the bachelor's thesis project | 110,00 |
| **Total hours** | **280,00** |

## TEACHING METHODOLOGY

The students should develop a work supervised by a professor inside UVEG teaching in the Degree. The work can be proposed both by the tutor as by the student. In any case, the tutor will approve the goals to be achieved in the project and will ensure that student work allows valuing the fulfillment of the competencies established in the objectives of the Computer Engineering Degree. Student and tutor will be in regular contact. In any case, tutor must maintain a minimum of two meetings with the student, one to set the objectives of the project and another during preparation of the memory, to assess the level of compliance with the objectives. Nevertheless, if agents deem it appropriate, may be conducted working sessions to analyze the evolution. The Final Project will be held in an institution external to the UVEG. In any case, always under the approval and supervision of the UVEG appointed tutor.

The student will be involved in all stages resulting from undertaking the project. However, within large teams, it is common that the distribution of work is done so that some project tasks are carried out by other team members or even by other teams._These circumstances must appear explicitly in project memory_and the student must make express mention to direct or indirect participation in the different phases of their work.

Workload for students on the total load of the matter: 100%

## EVALUATION

The Final Year Project should be defend in public session in a court composed of the tutor college student and two faculty members (assigned to degrees with teaching in the Department of Informatics UV) 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 and will constitute 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 o 10 points, shall contain the following assessments:

Scientific-technical quality of work performed
Quality of memory
Attitude of student

In addition to the quality of the different sections that are evaluated from the report, and given the importance of certain concepts, students must include the following sections in their report. Otherwise, the final grade will be reduced by the factors that appears next to each item.

State of the Art 0.5
Requirement definition F/NF 0.5
Time schedule and costs 0.5
Use Case Diagram* 0.5
Use Case Specification* 0.25
Class Diagram * 0.5
System Operation Interaction Diagrams* 0.5
Test studies 0.5
Budgetary assessment 0.25

(*) Sections required only for software development projects

Moreover, students in mobility programs may make the FYP in the target center. In that case, the project will have to be approved by the exchange coordinator of the degree, by delegation of the Commission of FYP, assigning a UV academic tutor. In case that the student undertakes an FYP defense in the target center and can demonstrate the competence of public presentation, the FYP Commission will delegated score recognition the exchange coordinator of the degree. Otherwise, there will be a public defense in UV on the same basis as other students, recognizing the portion corresponding to work and the memory submitted in target center, weighing destination and the corresponding part of the public defense of the UV.

The three members sign a record which shall contain work numerical rating. In any case, the evaluation of this subject will be done in compliance with the University Regulations in this regard, approved by the Governing Council on 30th May 2017 (ACGUV 108/2017).

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).

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).

## REFERENCES

- Project Management Institute, "A Guide to the Project Management Body of Knowledge", 4th edition, Project Management Institute (2008), ISBN: 19-33890517

- Domingo Ajenjo, A. "Dirección y Gestión de Proyectos, un enfoque práctico". Editorial Rama, (2005). ISBN: 9701511301.

- Pereña, J. "Dirección y Gestión de Proyectos". Editorial Díaz de Santos (1991). ISBN: 8479782498

- Martín, G; Dawson, C. "El proyecto fin de carrera en ingeniería informática". Editorial Prentice Hall; ISBN: 84-20535605.

- Grashina M.N; Newell M.W, "Preguntas y Respuestas Sobre La Gestión de Proyectos", Editorial Gestión 2000, (2005). ISBN: 9788480886864

- Gómez, J. F; Coronel, A.J; Martinez de Irujo, L; Lorente, A. "Gestión de proyectos". FC Editorial. Madrid, (2000). ISBN: 84-28317747.