1. BASIC INFORMATION

Course	Engineering Project
Degree Program	BSc degree in Computer Science
School	Escuela Politécnica
Year	2025-2026
Credits (ECTS)	6
Credit type	Basic
Language(s)	English / Spanish
Delivery mode	On campus
Semester	S2
Academic year	2025-2026
Coordinating professor	

2. PRESENTATION

In this subject area, students will carry out a project where the knowledge acquired in the basic subjects from the branch of engineering will be applied, in particular those from computer science and/or physics.

The project will be designed by a coordinating professor of the subject with help from professors of related core subject areas, with the aim for the students to put into practice the knowledge from the rest of the core subject areas in the syllabus. It will have a common basic structure defined by the specific skills it develops.

An external company or organization may take part in the definition of projects to provide support. Depending on the project's defining details, students participating in such projects may be required to sign a confidentiality agreement and/or commercial rights exploitation agreement.

The final assessment of the project will require the submission of a report, describing in detail the work carried out and, where appropriate, the prototype developed. Likewise, the oral defense of the project before, at least, the subject coordinator will be required. Professors of related core subjects and, where appropriate, the representative of the supporting external company or organization may also be present.

3. LEARNING OUTCOMES

Knowledge:
KNO03.To know the structure, organization, operation and interconnection of computer systems, the fundamentals of their programming.
KNO18. Know software engineering principles, methodologies and life cycles.
Skills:
SK03. Apply the knowledge of the structure, organization, operation, and interconnection of computer systems, and the fundamentals of their programming to solve engineering problems.

SK13 Apply the principles, methodologies, and life cycles of software engineering
SK19. Design and evaluate human-computer interfaces to ensure accessibility and usability of computer systems, services and applications.

Competences:
CMP05. Develop IT projects, services and systems in all areas, leading their implementation and continuous improvement and assessing their economic and social impact.

4. CONTENTS

The Contents of the course/module are listed below:

- Class Implementation. Attributes, constructors, methods. Collections
- Advanced Class Design. Method Overloading and Overriding.
- Single Inheritance. Polymorphism. Multiple Inheritance.
- Design Patterns.
- Quality Assurance.
- Event Management. Graphical Interfaces.

5. TEACHING-LEARNING METHODOLOGIES

The types of teaching-learning methodologies used are indicated below:

- Project-based learning
- Reverse Learning

6. LEARNING ACTIVITIES

Listed below are the types of learning activities and the number of hours the student will spend on each one:

Campus-based mode:

Learning activity	Number of hours
Lectures	6
Spoken presentations	2
Research and projects	18
Independent working	56
Debates and discussions	8
Tutorials	12
On campus knowledge assessment tests	2
TOTAL	**150**

7. ASSESSMENT

Each assessable learning activity represents an opportunity for the student to make progress, receive feedback, and consolidate knowledge, skills, and competences. The Learning Outcomes outlined in this guide provide direction for this process and serve as benchmarks for their achievement.

Listed below are the assessment systems used and the weight each one carries towards the final course grade:

Campus-based mode:

Assessment Systems	Weight (%)
On campus knowledge assessment tests	10-15%
Spoken presentations	10-20%
Performance assessment	0-5%
Research and projects	60-80%

7.1. First exam period

In order to pass the course/module in the ordinary call, the student must obtain a grade greater than or equal to 5.0 (out of 10), in all the evaluation systems proposed in this guide. The final grade will be calculated from the weighted average of all the evaluation systems described.

If in any of the evaluation systems proposed in this guide, a grade lower than 5.0 (out of 10) is obtained, the final grade of the course/module will be "fail" even if, in the result of the weighted average, a value higher than 5.0 (out of 10) is obtained. In the latter case, the course/module would still be "failed" obtaining a final grade of 4.0 (out of 10).

Delivery of activities

Compliance with deadlines is essential to ensure the fairness and planning of the training process.

In case of not submitting an evaluable formative activity in due time and form, and without prior justification, it will not be evaluated and, therefore, will be recorded as "not submitted".

The student is encouraged to communicate with sufficient time in advance to the teacher of the course/module, any difficulty that may affect their participation in any activity.

Attendance

Active participation in the training sessions is a key component of learning. In order to pass the course/module, at least 50% attendance is required. If this minimum percentage is not reached, the teacher may consider the course/module as "failed", according to the evaluation regulations of the Universidad Europea de Andalucía.

7.2. Second exam period

The extraordinary exam offers a new opportunity for students to demonstrate their learning. To pass it, it will be necessary to obtain a final grade (weighted average) equal to or higher than 5.0 (out of 10.0).

Delivery of activities

The student must submit and pass those mandatory training activities not delivered or not passed in the ordinary call, respecting the new deadlines established. In case of failure to comply with these new deadlines, the activity will not be evaluated and, therefore, will be recorded as "not presented".

8. SCHEDULE

This table shows the delivery deadline for each assessable activity in the course:

Assessable activities	Date
Activity 1: Delivery and presentation of the project proposal and product	Week 5
Activity 2: Delivery of the project's agenda and minutes	Weeks 9–11
Activity 3: Simulation of the management committee and delivery of the project's control dashboards.	Weeks 11–12
Activity 4: Project audit simulation	Weeks 13–14
Activity 5: Definition and carrying out of the test plan	Week 15
Activity 6: Delivery and final explanation of the project's result	Week 16
Activity 1: Delivery and presentation of the project proposal and product	Week 16

This schedule may be subject to changes for logistical reasons relating to the activities. The student will be notified of any change as and when appropriate.

9. REFERENCES

The reference and support material sources for the subject area will be published on the Virtual Campus.

10. AREA OF GUIDANCE, DIVERSITY AND INCLUSION

The Area of Guidance, Diversity and Inclusion (ODI) offers support to students throughout their university career, with the aim of facilitating their academic and personal development and supporting them in achieving their goals. This Area focuses its work on three Core pillars: the inclusion of students with specific educational support needs, the promotion of universal accessibility in the educational community and the guarantee of equal opportunities for all.

Among the services offered are:

- **Academic accompaniment and monitoring**, through counselling and the development of personalised plans aimed at those who need to improve their academic performance.

- **Attention to diversity**, through the implementation of non-significant curricular adjustments - in methodological and Assessment aspects - for students with specific educational support needs, in order to guarantee equal opportunities.
- **Extracurricular training resources**, aimed at developing personal and professional Competencies that contribute to the integral growth of students.
- **Vocational guidance**, through the provision of tools and advice to those who have concerns about their choice of Degree or are considering a change in their educational path.

Students in need of educational support can contact the Area via the following email address: orientacioneducativa@universidadeuropea.es

11. ONLINE SURVEYS

Participating in the Satisfaction Surveys is an enriching opportunity to contribute to the continuous improvement of the Degree as well as the institution. Thanks to them, it is possible to identify which aspects of academics, teaching staff and the teaching-learning process are working well and which can be further improved.

With the aim of encouraging active participation in the completion of surveys among students, various channels of dissemination have been set up. The surveys are available in the space provided on the Virtual Campus and are also sent by email to facilitate access.

The responses collected allow decisions to be made that have a direct impact on the quality of the learning experience and on the day-to-day life of the university community.