1. OVERVIEW

Subject area	Final Degree Project
Degree	Bachelor's Degree in Physics
School/Faculty	Architecture, Engineering and Design
Year	4º
ECTS	12
Type	Compulsory
Language(s)	Spanish
Delivery mode	On campus
Semester	S1, S2

2. INTRODUCTION

The Final Degree Project is an individual or group project completed by students under the guidance of one or more professors or tutors. The first step in completing the Final Degree Project is to present a draft project. Students can effectively start working on their Final Project once the draft project has been formally approved. Once the objectives set in the draft project have been completed, students can request, with the agreement of their tutors, the defence and final assessment of the project. For the final assessment, students are required to present a report that gives a detailed description of their work. In addition, students will need to orally defend their project in a public session in front of an assessment panel.

3. SKILLS AND LEARNING OUTCOMES

Basic skills (CB, by the acronym in Spanish):

- CG2 - Ability to plan and perform independent work when managing projects associated with different areas of physics.
- CG3 - To understand and express oneself in a language of science other than Spanish in a professional setting.
- CG4 - To convey knowledge, procedures, results and scientific ideas in the field of physics, both orally and in writing.
- CG5 - To understand diverse phenomena that, despite being physically different, share certain similarities, allowing known solutions to be applied to new problems.
- CB1 - Students have shown their knowledge and understanding of a study area that builds on general secondary school education, and are usually at the level where, with the support of more advanced textbooks, they may also demonstrate awareness of the latest developments in their field of study.

- CB2 - Students can apply their knowledge to their work or vocation in a professional manner and possess the skills which are usually evident through the forming and defending of opinions and resolving problems within their study area.
- CB3 - Students have the ability to gather and interpret relevant data (usually within their study area) to form opinions which include reflecting on relevant social, scientific or ethical matters.
- CB4 - Students can communicate information, ideas, problems and solutions to both specialist and non-specialist audiences.
- CB5 - Students have developed the learning skills necessary to undertake further study in a much more independent manner.

Transversal skills (CT, by the acronym in Spanish):

- CT1 - Ethical values: Ability to think and act in line with universal principles based on the value of individuals, contributing to their development and involving commitment to certain social values.
- CT2 - Independent learning: A range of skills in order to choose research, analysis, evaluation and information management strategies from different sources, as well as to learn and put into practice what has been learnt independently.
- CT4 - Written communication/Oral communication: Ability to communicate and gather information, ideas, opinions and viewpoints in order to understand and be able to act upon them, whether they are through spoken word and gestures, or through written word and/or visual aids.
- CT5 - Problem solving: Be able to critically evaluate information, separate complex situations into their constituent parts, recognise patterns, and consider alternatives, different approaches and perspectives in order to find optimal solutions and negotiate efficiently.
- CT6 - Adaptability: Being able to accept, appreciate and integrate different positions, being able to adapt one's own approach as required by the situation, as well as working effectively in ambiguous situations.
- CT8 - Entrepreneurial spirit: Ability to take on and carry out activities that generate new opportunities, anticipate problems or bring about improvements.

Specific skills (CE, by the acronym in Spanish):

- CE05 - To understand and know how to use the mathematical and numerical methods used in physics and in handling experimental data.
- CE06 - To understand key experimental models and to perform experiments independently, describing, analysing and critically assessing experimental data.
- CE10 - To produce, present and defend a scientific/technical report on the Final Degree Project both orally and in writing in front of an audience.

Learning outcomes (RA, by the acronym in Spanish):

- RA1 - To complete an individual exercise that must be defended in front of a university assessment panel, consisting of a comprehensive project in the field of physics. This can be a research and innovation project, but it does not have to be as the main aim is to apply existing knowledge.
- RA2 - To present and defend ideas, problems and solutions in the field of physics.

The following table shows how the skills developed in the subject area match up with the intended learning outcomes:

Skills	Learning outcomes

CG2,CG5,CB1,CB2,CB3,CB5,CT1,CT2,CT4,CT5,CT6,CT8,CE05,CE06,CE10	RA1
CG3, CG4, CB1, CB2, CB3, CB4, CT4, CE10	RA2

4. CONTENTS

- Final Degree Projects on topics related to the knowledge, competencies and skills covered on this degree programme will be accepted.

5. TEACHING/LEARNING METHODS

The types of teaching/learning methods are as follows:

Case studies: Discussion of real cases that allow for practical application of the acquired theoretical knowledge.
Problem-based learning: Students are given problems and asked to solve them, working individually or in groups.
Project-based learning: Geared towards the completion of projects similar to those found in real work environments. This involves following a methodology to complete the project and choosing between different alternatives.
Workshop-based learning: Students acquire knowledge through learning to use the tools and equipment needed in their profession. In other words, "learning by doing".
Guided academic activities: Individual and group work that is more independent, including information searches, written summaries, debates and the public defence of projects.

All methodologies may be used. Final Degree Projects on topics related to the knowledge, competencies and skills covered on this degree programme will be accepted.

6. LEARNING ACTIVITIES

The types of learning activities, plus the amount of time spent on each activity, are as follows:

Learning activity	Number of hours
1. Assessment	1

2. Tutorials, academic monitoring and assessment	30
3. Final Degree Project	269
TOTAL	**300**

7. ASSESSMENT

The assessment systems, plus their weighting in the final grade for the subject area, are as follows:

Assessment system	Weighting
The Final Degree Project will be presented and defended in the format established by the academic coordinator of the degree course, and it will be assessed by a university panel. The defence will be on campus.	25–50%
Written report on the Final Degree Project	50–75%

On the Virtual Campus, when you open the subject area, you'll find details of your assessable tasks, including the submission dates and assessment procedures for each task.

8. BIBLIOGRAPHY

- Students are responsible for finding their own reference material. The project tutor/professor can provide the necessary guidance.