

Academic Year/course: 2021/22

## 30033 - Undergraduate Dissertation

### Syllabus Information

**Academic Year:** 2021/22

**Subject:** 30033 - Trabajo fin de Grado

**Faculty / School:** 110 - Escuela de Ingeniería y Arquitectura

**Degree:** 436 - Bachelor's Degree in Industrial Engineering Technology

**ECTS:** 12.0

**Year:** 4

**Semester:** Second semester

**Subject Type:** End of Grade Dissertation

**Module:**

### 1. General information

### 2. Learning goals

### 3. Assessment (1st and 2nd call)

### 4. Methodology, learning tasks, syllabus and resources

#### 4.1. Methodological overview

This Undergraduate dissertation (also called "end study work" or "end of grade dissertation" or even "Degree project?") will demonstrate the student competence in industrial engineering, whatever field previously selected by the student (i.e. electronics, mechanics, chemical engineering, etc.).

The student will agree with his/her project director, previously, the work goals, main tasks and basic schedule.

It will take around 300 hours (12 ECTS), under the direct supervision (see further references at [www.eina.unizar.es](http://www.eina.unizar.es)). It is a common practice in Engineering Schools as student final examination; in this case, it will be exposed faced to a multidisciplinary tribunal in EINA.

In this particular Degree, it is possible to make this project in groups (by pairs for example), but final examination, defense and evaluation will be individual (compulsory by legal requirements). Additional explanations should be required to Dean Office if this option is selected.

#### 4.2. Learning tasks

There are two common types of this work:

- A *classical engineering project* (composed by time planning, budget, detailed drawings, technical requirements, normative, etc.), named *A-Type*, usually needed for any industrial development, facility or equipment.

- An *open* format: any kind of design work, laboratory report, new industrial development, technical analysis, etc. strongly related to industrial practice, named *B-Type*, and complex enough to demonstrate student competence in industrial engineering. In this case, the student will explain FEM analysis, control tasks, quality activities, automotive assemblies design, software developed, etc.

In the same way, any other work developed by the student in the industrial field, could be defended as undergraduate dissertation. Anyway, in this case the surveillance of a university professor it is required in order to get the technical level expected.

#### 4.3. Syllabus

Due to its specific orientation, this subject has no defined program, see 5.1.

#### **4.4. Course planning and calendar**

The activity schedule should be agreed between the student(s) and project supervisor or director, there is no defined program or any particular activity.

Some items should be considered (EINA requirements)

- The student has to be enrolled in this subject
- The student has to present a brief proposal (including title, principal affiliation, description, main tasks, goals, and planning) at least two months before public dissertation, in order to be approval from the Academic Degree Committee.
- With the final document and before its public defense (mandatory) the principal will send a report to his his / her assessment of the student and authorizing the work deposit and defense.

For further information, please visit <https://eina.unizar.es/trabajos-fin-de-estudios>).

#### **4.5. Bibliography and recommended resources**

Link