

## 30134 - Undergraduate Dissertation

### Syllabus Information

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**Academic Year:** 2020/21

**Subject:** 30134 - Undergraduate Dissertation

**Faculty / School:** 175 - Escuela Universitaria Politécnica de La Almunia  
179 - Centro Universitario de la Defensa - Zaragoza

**Degree:** 457 - Bachelor's Degree in Industrial Organisational Engineering  
563 - Bachelor's Degree in Industrial Organisational Engineering  
425 - Bachelor's Degree in Industrial Organisational Engineering

**ECTS:** 12.0

**Year:** 4

**Semester:** 425 - Second semester

425 - Second semester

425 - Second semester

563 - First semester

563 - First semester

563 - First semester

563 - First semester

563 - First semester

**Subject Type:** ---

**Module:** ---

## 1.General information

### 1.1.Aims of the course

The subject and its expected results respond to the following approaches and objectives:

- First, that the student knows the scope and circumstances in which to develop the exercise of their profession and the context in which it develops.
- Second, based on the skills acquired throughout the career, be able to design, develop and execute systems and processes.

### 1.2.Context and importance of this course in the degree

The purpose of this work is to prepare the student to face professional life and make it clear that, in application of the skills acquired, is able to develop and defend a job with similar characteristics to any of those that may face in his professional life.

### 1.3.Recommendations to take this course

## 2.Learning goals

### 2.1.Competences

Upon passing the subject, the student will be more competent to...

1. conceive, design and implement engineering projects.
2. plan, budget, organise, manage and monitor tasks, people and resources.
3. combine both general and specialised engineering knowledge to produce innovative and competitive proposals within the scope of professional practice.
4. solve problems and take decisions with initiative, creativity and critical reasoning.
5. communicate knowledge and skills in Spanish.
6. use techniques, skills and tools necessary to practise engineering.
7. analyse and evaluate the social and ecological impact of technical solutions, behaving ethically, with professional responsibility and social commitment, always striving for quality and continuous improvement
8. work in a multidisciplinary group and in a multilingual setting.

9. manage information; skills to handle and apply technical specifications and the necessary legislation to practise engineering.
10. continue learning and develop self-learning strategies.
11. apply Information and Communication Technologies (ICTs) within the field of engineering.
12. individually produce an original piece of work of a professional nature, and defending it before a university board. Such work must be a project related to the field of Industrial Organization Engineering that shows a harnessing of the competences required of the degree.

## 2.2. Learning goals

To pass the subject, the student should demonstrate the following results:

1. He/She is able of developing, presenting and defending individually an original exercise of a professional nature in the field of Industrial Organization Engineering as a demonstration and synthesis of the competences acquired in the Degree.
2. He/She applies the acquired skills to the completion of an autonomous work.
3. He/She plans and use the necessary information for a project or academic work based on a critical reflection on the resources used.
4. He/She divides a complex task into sub-tasks and plans its execution.
5. He/She communicates clearly and efficiently in oral and written presentations on complex topics, adapting to the situation, the type of audience and the communication objectives.

## 2.3. Importance of learning goals

Upon passing the subject, the student will have to present and be able to defend before a university board of an Undergraduate Dissertation, consisting of an exercise of integration of the received formative contents and the acquired skills. The Undergraduate Dissertation supposes the culmination of the formative process of the student and the beginning of what his professional future can be.

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

### 3.1. Assessment tasks (description of tasks, marking system and assessment criteria)

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A Examining Board will be responsible for the Dissertation evaluation. Each board will be integrated by three CUD teachers, and there will be one board for each fundamental speciality. Assessment tools will include:

- A report from the Military Supervision, including information about the following criteria: Dissertation extent and scope, technical complexity, Creativity, Dedication to the work and effectiveness, Methodological rigour.
- A report from the Academic Supervision, including information about the following criteria: Dissertation extent and scope, technical complexity, Creativity, Dedication to the work and effectiveness, Methodological rigour, Formal Quality.
- Dissertation deposited by the student. It could be written both in Spanish or English. It will include a short summary (2 pages) y de other language.
- Oral presentation (in English). The capacity of the student to make a professional quality presentation of his/her results and to communicate in a clear and efficient manner on complex items will be assessed.

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

### 4.1. Methodological overview

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The learning process that has been designed for this subject is based on the following:

The teaching methodology is based on a strong interaction teacher / student. This interaction becomes a reality by means of a distribution of task / responsibilities among students and teachers.

1. **Classroom activities: There is no teaching.**
2. **Supervised autonomous activities:** These activities will be led by the Director of the Final Year Project and the writing of it will be under the supervision of the Director.
3. **Individual tutorials:** They can be face-to-face or virtual with each of the teachers of the different subjects.

Teaching-Learning Methodology			
Training activities	ECTS	Teaching-learning Methodology	Relationship with skills to be acquired
Theory lectures	0		
Seminars	0,5		
Supervised			

practice work	0	Given the particular nature of the subject, a methodology with specialized tutorials and seminars are considered.	
Tutorials	1		
Non-class group work	0		
Non-class individual work	10		From 1 to 12
Assessment	0,5		

### **SPECIALIZATION IN DEFENCE**

The undergraduate dissertation is developed within a unit, centre or institution of the Army or the Ministry of Defence (hereafter, UCO), during the same period when the student also develops the course 'Internships'. The objective is to integrate 18 ECTS of both courses (undergraduate dissertation and internship) in a coherent formative activity that combines the academic standards with optimal performance of the future officers learning. One of the aims is to develop an applied, professionally focused activity. As far as possible it should also correspond with his/her fundamental speciality.

### **4.2.Learning tasks**

The course includes the following learning tasks:

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The program that the student is offered to help him achieve the expected goals includes the following activities...

- 1: It involves the active participation of students, so that for achieving learning outcomes, the following activities, no redundancy intended with the above mentioned, will be developed.
- 2: Supervised autonomous activities: These activities will be led by the Director of the Final Year Project and the writing of it will be under the supervision of such Director.
- 3: Individual tutorials: They can be face-to-face or virtual with each of the teachers of the different subjects.

#### **SPECIALIZATION IN DEFENCE**

The on-site part of the two courses 'Internships' and 'Undergraduate Dissertation' take place for eight weeks. Each student will spend seven weeks in a UCO and a final week in the Academia General Militar in order to finish his/her Dissertation. During the first seven weeks in the UCO, he/she must accomplish both the internship requirements and most of the Dissertation work, leaving only the end of the dissertation and the oral presentation. In order to obtain the best performance and to guarantee the success of the dissertation, the following global time distribution between both courses is recommended: two and a half weeks for internship and four and a half weeks for dissertation.

Each student will have a supervisor in the UCO acting both as the military tutor of the internship and military supervisor of the Dissertation.

Each student will have a supervisor (teacher) from CUD acting both as the academic tutor of the internship and academic supervisor of the Dissertation.

### **4.3.Syllabus**

#### **SPECIALIZATION IN BUSINESS**

**Essential Contents of the subject for the achievement of learning outcomes.** When referring to the Final Year Project, we will make reference to the contents of all the subjects that have been studied throughout the student's training.

#### **SPECIALIZATION IN DEFENCE**

##### **Contents**

For the Undergraduate Dissertation, 'contents' refer to all the subjects/disciplines in the degree Curriculum.

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

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##### **Classroom session Scheduling and presentation of works**

It will be scheduled by the Project Director, with personalized nature, depending on the evolution of the work itself, always adapted to the dates of the calls that are set in each academic year (<http://eupla.unizar.es/asuntos-academicos/trabajo-fin-de-grado>).

#### **SPECIALIZATION IN DEFENCE**

The on-site period of the 'Internships' and 'Undergraduate Dissertation' takes place during the months of September and October 2020. Deadline for the Dissertation deposit is during November 2020 (date to be determined). The oral presentation will take place not later than January 2021 (date to be determined). Between these two dates, the Examining Board shall detect those dissertations that do not fulfill the course standards. For these cases, they will send a report to the student indicating tasks of the dissertation to be improved. For these works, dissertations not previously deposited or dissertations that do not pass the course after the oral presentation, the second period of deposit and oral presentations will be offered. The oral presentations of this second opportunity will be not later than June the 1st, 2021.

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

No bibliographic records for this subject.