29821 - Resistance of Materials

Información del Plan Docente

Academic Year	2016/17
Academic center	110 - Escuela de Ingeniería y Arquitectura 326 - Escuela Universitaria Politécnica de Teruel
Degree	440 - Bachelor's Degree in Electronic and Automatic Engineering 444 - Bachelor's Degree in Electronic and Automatic Engineering
ECTS	6.0
Course	3
Period	First semester
Subject Type	Compulsory
Module	---

1.Basic info

1.1.Recommendations to take this course

1.2.Activities and key dates for the course

2.Initiation

2.1.Learning outcomes that define the subject

2.2.Introduction

3.Context and competences

3.1.Goals

3.2.Context and meaning of the subject in the degree

3.3.Competences

3.4.Importance of learning outcomes

4.Evaluation

5.Activities and resources

5.1.General methodological presentation

The teaching methodology is structured in four levels:

- Theoretical classes where the main subject contents are presented and discussed

- Classes for solving problems where practical applications of the theoretical concepts are developed and solved

- Computer lab sessions where the theoretical concepts are applied

- Development of a practical task based on a real application

5.2.Learning activities

There will be the following activities:

CLASSROOM TEACHING: 2.4 ECTS (60 hours)

- Theoretical classes (T1) (30 hours)
- Classes for solving problems (T2) (15 hours)
- Computer lab sessions (T3) (15 hours)

OFF-SITE TEACHING: 3.6 ECTS (90 hours)

- Development of a practical task (T6) (15 hours)

- Student personal study-time (T7) (72 hours)

- Assessments (T8) (3 hours)

5.3.Program

The program will be as follows:

1. Introduction to the Mechanics of solids and structures
2. Axial stress/strain
3. Torsion of sections
4. Shear and bending of beams
5. Compound bending
6. Determinate and indeterminate structural problems
7. Buckling of struts
8. Thin plates

5.4.Planning and scheduling

The course calendar is defined by the University of Zaragoza.

The practical task should be presented before the exam. The deadline is fixed by the corresponding professor.

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Every professor fixes its tutorship time.

5.5.Bibliography and recomended resources