30154 - Metallic Structures

Información del Plan Docente

Academic Year 2017/18

Faculty / School 179 - Centro Universitario de la Defensa - Zaragoza

Degree 457 - Bachelor's Degree in Industrial Organisational Engineering
458 - Bachelor's Degree in Industrial Organisational Engineering

ECTS 6.0

Year 4

Semester First semester

Subject Type Optional

Module ---

1. General information

1.1. Introduction

1.2. Recommendations to take this course

1.3. Context and importance of this course in the degree

1.4. Activities and key dates

2. Learning goals

2.1. Learning goals

2.2. Importance of learning goals

3. Aims of the course and competences

3.1. Aims of the course

3.2. Competences

4. Assessment (1st and 2nd call)

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

5. Methodology, learning tasks, syllabus and resources

5.1. Methodological overview

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

- Theoretical Classes given by the teacher to whole group. In these, theoretical concepts of the subject will be illustrated
with examples to help understand and in which students are challenged to participate, reasoning about theoretical concepts exposed.
- Classes Problems. In these classes the contents of the theory classes are strengthened by performing carefully selected problems to cover all relevant aspects. Practical sessions organized so that students become familiar with spreadsheet programs. Individual realization of problems, homework and public exhibitions independently.
- Tutorials In which the student will be helped to solve the doubts raised during learning.
- Other Learning activities scheduled.

5.2. Learning tasks

- Theoretical classes.
- Classes about calculation programs.
- Classes about problems of the subject.
- Group work sessions.
- Tutorials.
- Conferences Given by invited staff.
- Visits to a work.

5.3. Syllabus

The program of lectures will focus on Document DB-SE_A, and will need the knowledge gained in the course *Structural Analysis*. It will develop the following sections:
- Calculation bases.
- Structural safety.
- Resistance of the sections.
- Resistance of the bars.
- Welded joints.
- Bolted joints.

5.4. Course planning and calendar

It will be announced by the teacher, both in class and through the platform moodle support.

5.5. Bibliography and recommended resources

BB Arguelles Álvarez, Ramón . *Estructuras de acero. Fundamento y cálculo según CTE*, EAE y EC3. 3a ed. Ediciones técnicas y científicas Bellisco

BB España. Ministerio de la Vivienda. Código Técnico de la Edificación / edición
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Menor (Navarra) : Aranzadi, 2013
BC Gracia Villa, Luis. Estructuras de acero
Luis Gracia Villa, Elena Ibarz Montaner .
[Zaragoza?] [s.n.] D.L. 2011.
BC Hurtado Mingo, Constantino. Construcción
en acero : sistemas estructurales y
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Constantino Hurtado Mingo, Ruth Vega