

Academic Year: (2019 / 2020)

Review date: 14-05-2020

Department assigned to the subject: Continuum Mechanics and Structural Analysis Department

Coordinating teacher: GARCIA CASTILLO, SHIRLEY KALAMIS

Type: Compulsory ECTS Credits : 3.0

Year : 1 Semester : 2

OBJECTIVES

Ability for the design and construction of industrial complexes
 Knowledge about constructions, installations and infrastructures in the field of mechanical engineering
 Knowledge and ability to calculate and design structures
 Application of the standards relative to industrial structures

DESCRIPTION OF CONTENTS: PROGRAMME

1. Description of industrial structures
2. Design of industrial structures made of steel and concrete elements
3. Foundations calculus
4. Standards relative to industrial constructions
5. Town planning and industrial infrastructures
6. The project of industrial structures
7. Industrial installations
8. Introduction to Building Information Modeling (BIM)

LEARNING ACTIVITIES AND METHODOLOGY

- Magisterial classes, tutorship and personal work oriented to the acquisition of theoretical knowledge.
- Problems solution classes, tutorship and personal work oriented to the acquisition of practical skills.
- Practical work. Design and calculation of a typical industrial structure, using the standard regulations.

Additionally, collective tutorship can be included in the programme

ASSESSMENT SYSTEM

Continuum assessment system based on short tests and reports.
 A minimum grade of 4.5 in the final exam and continuum evaluation are required to take into account the continuum assessment.

% end-of-term-examination:	50
% of continuous assessment (assignments, laboratory, practicals...):	50

BASIC BIBLIOGRAPHY

- J. Monfort Leonart Estructuras metálicas para edificación , Ed. Universidad Politécnica de Valencia, 2006, 2006
- R. Argüelles Álvarez, et al. Estructuras de Acero, fundamentos y cálculo según CTE, AEA y EC3, Bellisco Ediciones Técnicas y Científicas, 2013

ADDITIONAL BIBLIOGRAPHY

- R. Argüelles Álvarez, J.M. Argüelles Bustillo, Arriaga Martitegui Estructuras De Acero, Editorial Bellisco, 2008

BASIC ELECTRONIC RESOURCES

- Ministerio de Fomento . Código Técnico de la Edificación: <https://www.codigotecnico.org/>