

Academic Year: (2019 / 2020)

Review date: 05-05-2020

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

Coordinating teacher: GARCIA CASTILLO, SHIRLEY KALAMIS

Type: Electives ECTS Credits : 3.0

Year : 1 Semester : 2

REQUIREMENTS (SUBJECTS THAT ARE ASSUMED TO BE KNOWN)

Elasticity, Strength of materials, and theory of structures

OBJECTIVES

Skills to be acquired:

- Knowledge about design of industrial structures
- Understanding of failure mechanisms in structures
- Use of commercial codes to design structures, having the ability to develop a critical analysis of the results.

Learning results:

- Understanding of the basics of the design of industrial structures
- Analysis of the behaviour of industrial structures under different loading conditions
- Preliminary design of structural elements
- Design of structures according to European standards requirements
- Use of commercial codes to design structures

DESCRIPTION OF CONTENTS: PROGRAMME

1. Introduction to industrial constructions
2. European standards for constructions
3. Design and analysis of structural elements
4. Design and analysis of foundations
5. Use of commercial codes to design structures
6. Projects of industrial constructions
7. Introduction to Building Information Modeling (BIM).

LEARNING ACTIVITIES AND METHODOLOGY

Learning activities include:

- Theoretical sessions, small group sessions to solve doubts, individual tutorships and student personal work. These activities are oriented to the acquisition of theoretical knowledge.
- Problem sessions, student oral presentations, individual tutorships and student personal work. These activities are oriented to the acquisition of practical skills.

ASSESSMENT SYSTEM

The final grade is based on continuum assessment and a final report

% end-of-term-examination:	0
% of continuous assessment (assignments, laboratory, practicals...):	100

BASIC BIBLIOGRAPHY

- CALAVERA RUIZ, J Cálculo de estructuras de cimentación, Ed. Instituto Técnico de Materiales y Construcciones , 2000
- MONFORT LLEONART Estructuras metálicas para edificación (adaptado al CTE). , Ed. Universidad Politécnica de Valencia.

BASIC ELECTRONIC RESOURCES

- Ministerio de vivienda . Código técnico de edificación: <http://www.codigotecnico.org/web/recursos/documentos/>