

Academic Year: (2019 / 2020)

Review date: 29-05-2019

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

Coordinating teacher: IVÁÑEZ DEL POZO, INES

Type: Compulsory ECTS Credits : 6.0

Year : 2 Semester : 1

COMPETENCES AND SKILLS THAT WILL BE ACQUIRED AND LEARNING RESULTS.

Statics.

Basic knowledge about solid mechanics.

Calculation of determinate structures.

DESCRIPTION OF CONTENTS: PROGRAMME

- Solid bodies behaviour.
- Stresses and strains.
- Relationship between stress and strain in elastic bodies.
- Equilibrium and reactions.
- Internal forces laws.
- Trusses and cables.
- Experimental method for strength estimation.
- Engineering applications.

LEARNING ACTIVITIES AND METHODOLOGY

- Magisterial classes, tutorship and personal work oriented to the acquisition of theoretical knowledge. (3 ECTS credits)
- Problems solution classes, laboratory sessions, tutorship and personal work oriented to the acquisition of practical skills. (3 ECTS credits)

Additionally, collective tutorship can be included in the programme

ASSESSMENT SYSTEM

Continuum assessment system based on short tests and laboratory reports.

A minimum grade of 4.5 in the final exam is required to take into account the continuum assessment.

% end-of-term-examination:	60
% of continuous assessment (assignments, laboratory, practicals...):	40

BASIC BIBLIOGRAPHY

- F.P. Beer, E. Russel Johnston Vector Mechanics for Engineers., Vol. Static, McGraw Hill, 1994
- J. Case Strength of material and structures, Ed. Arnold, 1999
- W.M.C. McKenzie Examples in structural analysis, Taylor & Francis, 2006