Master Thesis

Academic Year: (2022 / 2023) **Review date: 27-05-2022**

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

Coordinating teacher: ARTERO GUERRERO, JOSE ALFONSO

Type: Master Final Project ECTS Credits : 18.0

Year : 1 Semester : 2

REQUIREMENTS (SUBJECTS THAT ARE ASSUMED TO BE KNOWN)

The requirements for the registration of the TFM are in accordance with the EPS regulations. Knowledge of all the subjects of the Master is assumed.

OBJECTIVES

Completion, presentation and defense, once all the credits of the study plan have been obtained, of an original exercise, carried out individually to be presented to a university panel, consisting of an integral project in Structural Engineering of Industrial Constructions of professional nature in which the competences acquired in the course are synthesized.
Upon successful completion of this course, students will be able to:
1. Demonstrate advanced knowledge and understanding of the principles used in engineering, including state-of-the-art techniques, technologies and methods in their field.
2. Solve engineering problems through a process of analysis, modeling, and design, with an ability to solve problems outside of standard guidelines, or incompletely defined, or in new and emerging areas of industrial engineering.
3. Develop and perform the technological management of industrial engineering projects, including specifications and safety constraints, as well as social, environmental and commercial constraints.
4. Design and carry out research based on analysis, modeling and experimentation.
5. Apply their knowledge and understanding to develop the ability to solve problems, conduct investigations, design devices and define processes in
research, design devices and define processes in the field of industrial engineering.
6. Demonstrate the generic skills necessary for engineering practice, and which are applicable to.

DESCRIPTION OF CONTENTS: PROGRAMME

The Master's Thesis consists of the elaboration of a professional project in one of the areas covered in the syllabus. The aspects to be dealt with during its development are the following:
1. Review of the state of the art associated with the problem posed.
2. Critical analysis of different alternatives to address the problem posed.
3. Describe and evaluate the proposed solution.
4. Drafting of the report of the work carried out.
5. Public defense before an examining board of the main results obtained in the master's thesis.

OFFERS OF MASTER'S THESIS:
- The offer will be published in TFEPE (project board).

LEARNING ACTIVITIES AND METHODOLOGY

Training activities will include:

- Tutorials and, if applicable, group work.
- Personal work of the student oriented to the realization of the Master's Thesis.

The tutoring tasks of the TFM will require a minimum of ten hours per TFM by the professor or professors in charge of such tutoring.

ASSESSMENT SYSTEM

The student must prepare a report of the work done that will be delivered to the members of the tribunal chosen for the purpose of evaluation in due time (in the agreed support).
The final evaluation will be done through an oral test of the defense of the Master's thesis in front of the same tribunal.
Both the report and the defense may be in Spanish or English.
The University uses the Turnitin Feedback Studio program within Aula Global for the delivery of the students' work.This program compares the originality of the work submitted by each student with millions of electronic resources and detects those parts of the work that are not original. If the student has correctly
the citation and bibliographic reference of the documents used as sources, Turnitin will not mark it as plagiarism.

BASIC ELECTRONIC RESOURCES

- Biblioteca - UC3M . Turnitin: https://uc3m.libguides.com/c.php?g=666632&p=4726190
- Biblioteca UC3M . TFG paso a paso: http://uc3m.libguides.com/TFG
- Secretaría Virtual . TRABAJO FIN DE MÁSTER - ESCUELA POLITÉCNICA SUPERIOR: https://www.uc3m.es/ss/Satellite/SecretariaVirtual/es/TextoMixta/1371210942587/Trabajo_Fin_de_Master_-_Escuela_Politecnica_Superior