Bachelor Thesis

Academic Year: (2023 / 2024) **Review date: 12/02/2024 13:52:31**

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

Coordinating teacher: ARANDA RUIZ, JOSUE

Type: Bachelor Thesis ECTS Credits : 12.0

Year : 6 Semester :

REQUIREMENTS (SUBJECTS THAT ARE ASSUMED TO BE KNOWN)

Those required by the University in relation to the conditions to start and present the Bachelor Thesis.
http://www.uc3m.es/ss/Satellite/SecretariaVirtual/es/TextoMixta/1371210936260/

LEARNING OUTCOMES

CB1. Students have demonstrated possession and understanding of knowledge in an area of study that builds on the foundation of general secondary education, and is usually at a level that, while relying on advanced textbooks, also includes some aspects that involve knowledge from the cutting edge of their field of study.
CB2. Students are able to apply their knowledge to their work or vocation in a professional manner and possess the competences usually demonstrated through the development and defence of arguments and problem solving within their field of study.
CB3. Students have the ability to gather and interpret relevant data (usually within their field of study) in order to make judgements which include reflection on relevant social, scientific or ethical issues.
CB4. Students should be able to communicate information, ideas, problems and solutions to both specialist and non-specialist audiences.
CB5. Students will have developed the learning skills necessary to undertake further study with a high degree of autonomy.
CG3. Solve problems with initiative, decision making, creativity, and communicate and transmit knowledge, skills and abilities, understanding the ethical, social and professional responsibility of the engineering activity. Capacity for leadership, innovation and entrepreneurial spirit.
CE21. Original exercise to be presented and defended before a university committee consisting of a project in the field of specific technologies of a professional nature, which synthesizes and integrates the competences acquired in the teachings.
CE22. Design, plan and estimate the costs of an engineering project.
CT1. Work in multidisciplinary and international teams as well as organize and plan work making the right decisions based on available information, gathering and interpreting relevant data to make judgments and critical thinking within the area of study.
CT2. Present and write a topic correctly or compose a speech in a logical order, providing accurate information in accordance with established grammatical and lexical rules.
CT3. Assess the reliability and quality of information and its sources using such information in an ethical manner, avoiding plagiarism, and in accordance with academic and professional conventions in the field of study.

RA1. To have acquired sufficient knowledge and proved a sufficiently deep comprehension of the basic principles, both theoretical and practical, and methodology of the more important fields in science and technology as to be able to work successfully in them.
RA2. To be able, using arguments, strategies and procedures developed by themselves, to apply their knowledge and abilities to the successful solution of complex technological problems that require creating and innovative thinking.
RA3. To be able to search for, collect and interpret relevant information and data to back up their conclusions including, whenever needed, the consideration of any social, scientific and ethical aspects relevant in their field of study.
RA4. To be able to successfully manage themselves in the complex situations that might arise in their academic or professional fields of study and that might require the development of novel approaches or solutions.
RA5. To be able to communicate, in a precise and clear manner, knowledge, methodologies, ideas, problems and solutions in their field or specialty to any kind of audience (specialist or not).

RA6. To be aware of their own shortcomings and formative needs in their field of specialty, and to be able to plan and organize their own training with a high degree of independence.

DESCRIPTION OF CONTENTS: PROGRAMME

Original exercise to be presented and defended in front of an academic committee. The work will be an integral project in the field of the Bachelor degree that will be professionally oriented where the different competences acquired during the degree courses should be demonstrated or an innovative work developing an idea, prototype or a model of systems or equipments within the field developed during the Bachelor degree.

LEARNING ACTIVITIES AND METHODOLOGY

The learning activities and methodology for the End of Degree Work are specified in the corresponding university regulation: http://www.uc3m.es/ss/Satellite/SecretariaVirtual/es/TextoMixta/1371210936260/

The student will develop the skills acquired throughout their studies and apply the knowledge learned to carry out a project within the scope of this Degree that will end with a written report. It will reflect the analysis, resolution of issues and conclusions that correspond to the scope of the project. It supposes 299 hours with 0% attendance.

The student will defend and present their project before a court clearly arguing the corresponding questions and resolving the problems that may have arisen in the project. 1 hour/100% face-to-face

The tutor for the Bachelor's Degree Final Project helps and guides the student in all aspects necessary to carry out a solid final Project, and to write a corresponding clear and professional report. The tutoring sessions can be on-site or on line.

ASSESSMENT SYSTEM

It will be done through an oral test for the Defense of the Final Degree Project before a court chosen for that purpose, which will assess the student's work, the results obtained and their presentation according to an evaluation rubric or matrix.

Previously, the student must prepare a report of the work carried out that will be delivered to the members of the court with due notice.

In addition, an evaluation of the originality of the final degree project is carried out. The University uses the Turnitin Feedback Studio program within Aula Global to deliver student work. This program compares the originality of the work submitted by each student with millions of electronic resources and detects those parts of the text copied and pasted.

The defense evaluation percentage will be 100%.