Bachelor Thesis

Academic Year: (2019 / 2020) **Review date: 28-03-2019**

Department assigned to the subject: null

Coordinating teacher:

Type: Bachelor Thesis ECTS Credits : 12.0

Year : 4 Semester :

OBJECTIVES

CB1.Students have demonstrated knowledge and understanding in a field of study that builds upon their general secondary education, and is typically at a level that, whilst supported by advanced textbooks, includes some aspects that will be informed by knowledge of the forefront of their field of study
CB2.Students can apply their knowledge and understanding in a manner that indicates a professional approach to their work or vocation, and have competences typically demonstrated through devising and sustaining arguments and solving problems within their field of study
CB3.Students have the ability to gather and interpret relevant data (usually within their field of study) to inform judgments that include reflection on relevant social, scientific or ethical issues
CB4.Students can communicate information, ideas, problems and solutions to both specialist and non-specialist audiences
CB5.Students have developed those learning skills that are necessary for them to continue to undertake further study with a high degree of autonomy
CG1.Students are able to demonstrate knowledge and understanding of concepts in mathematics, statistics and computation and to apply them to solve problems in science and engineering with an ability for analysis and synthesis.
CG2.Students are able to formulate in mathematical language problems that arise in science, engineering, economy and other social sciences.
CG3.Students can solve computationally with the help of the most advanced computing tools mathematical models coming from applications in science, engineering, economy and other social sciences.
CG4.Students are able to show that they can analyze and interpret, with help of computer science, the solutions obtained from problems associated to real world mathematical models, discriminating the most relevant behaviours for each application.
CG5.Students can synthesize conclusions obtained from analysis of mathematical models coming from real world applications and they can communicate in verbal and written form in English language, in an clear and convincing way and with a language that is accessible to the general public.
CG6.Students can search and use bibliographic resources, in physical or digital support, as they are needed to state and solve mathematically and computationally applied problems arising in new or unknown environments or with insufficient information.
CE24.Students have shown that they are able to carry out an original exercise individually defended and consisting of a project in the scope of the specific technologies of the Degree, of professional nature, in which the acquired competencies during their studies are synthesized and integrated.
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.
RA7.Students must possess the professional maturity necessary to choose and evaluate their work objectives in a reflexive, creative, self-determined

DESCRIPTION OF CONTENTS: PROGRAMME

Original exercise and extended summary in English to be presented and defended in front of an academic committee. The work will be an integral project
in the field of data science and engineering 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 related to a one of the fields developed during the Bachelor

LEARNING ACTIVITIES AND METHODOLOGY

AF4.INDIVIDUAL WORK ON BACHELOR`S DEGREE FINAL PROJECT. Students apply competences and knowledge acquired during their studies in a Project from an area of the degree program, concluding with a written report. The foregoing reflects the corresponding projec`s analysis, resolution of issues and conclusions. The Project represents 299 hours/0% on-site.
AF5.ORAL PRESENTATION OF BACHELOR`S DEGREE FINAL PROJECT. The student defends their Project before a tribunal, clearly presenting the corresponding points with resolution of any problems arising in the Project.1 hour/100% on-site
MD4.TUTORING FOR BACHELOR¿S DEGREE FINAL PROJECT. 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

SE4.TOTAL FINAL EVALUATION. This is done through an oral Bachelor`s Degree Final Project defense before a tribunal selected to assess the student's work, the learning outcomes, and the presentation of the same, according to an evaluation model. Prior to the defense, the student must have duly presented their written report to the tribunal members.Represents 100% of the evaluation.