

Academic Year: (2023 / 2024)

Review date: 09-02-2024

Department assigned to the subject: Computer Science and Engineering Department

Coordinating teacher: BRANDLE CERQUEIRA, CRISTINA

Type: Electives ECTS Credits : 12.0

Year : 4 Semester :

SKILLS AND 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.

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 a 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.

RA1. Students must have acquired advanced cutting-edge knowledge and demonstrated indepth understanding of the theoretical and practical aspects of working methodology in the area of applied mathematics and computing.

RA2. Through sustained and well prepared argument and procedures, students will be able to apply their knowledge, their understanding and the capabilities to resolve problems in complex specialized professional and work areas requiring the use of creative and innovative ideas.

RA3. Students must have the capacity to gather and interpret data and information on which they base their conclusions, including where relevant and necessary, reflections on matters of a social, scientific, and ethical nature in their field of study.

RA4. Students must be able to perform in complex situations that require developing novel solutions in the academic as well as in the professional realm, within their field of study.

RA5. Students must know how to communicate with all types of audiences (specialized or not) their knowledge, methodology, ideas, problems and solutions in the area of their field of study in a clear and precise way.

RA6. Students must be capable of identifying their own education and training needs in their field of study and the work or professional environment and organize their own learning with a high degree of

autonomy in all types of contexts (structured or not).

RA7. Students must possess the professional maturity necessary to choose and evaluate their work objectives in a reflexive, creative, self-determined and responsible way, for the betterment of society.

DESCRIPTION OF CONTENTS: PROGRAMME

The goal of this course is to allow the student to complete its formation with a period of external internship in a company. External internships reinforce the formation of the students and provide them a complementary formation with singular value for their professional career.

The content of this subject is composed for all those activities carried out by students in companies, institutions and organizations, which seek to give a practical complement (or an academic-practical complement) to the academic learning process when such activity is relevant to the learning process and their future professional career

LEARNING ACTIVITIES AND METHODOLOGY

AF6.EXTERNAL INTERNSHIPS. Internships carried out in external entities, companies and public or private institutions. Subjects with 6 ECTS entail a minimum of 141 hours and subjects with 12 ECTS entail a minimum of 282 hours. 100% on-site

AF7.Preparation of INTERNSHIP report. 9 hours workload (for 6 ECTS) and 18 hours (for 12 ECTS); both 0% on-site

MD5.TUTORING FOR EXTERNAL INTERNSHIPS. Individualized academic help and guidance from tutor (individual tutoring sessions) or in-group (group tutoring) for the proper development, orientation and monitoring of internships carried out by students in external entities. The academic tutor may employ the reports from the entity or institution tutor as support.

ASSESSMENT SYSTEM

SE5.FINAL EVALUATION OF INTERNSHIPS. The evaluation is based on that made by the academic tutor as the internship was carried out, the final report of the tutor from the entity where the internship took place, and the written report prepared and presented by the student. 100% of the evaluation