Data Science Project

Academic Year: (2022 / 2023) **Review date: 18-05-2022**

Department assigned to the subject: Department of Signal and Communications Theory, Department of Statistics

Coordinating teacher: DIAZ DE MARIA, FERNANDO

Type: Compulsory ECTS Credits : 6.0

Year : 4 Semester : 1

OBJECTIVES

The students should have acquired advanced knowledge and demonstrated an understanding of the theoretical and practical aspects and working methodology in the field of data science and engineering to a depth that reaches the cutting edge of knowledge.

The students should be able, through self-developed and self-supported arguments or procedures, to apply their knowledge, understanding and problem-solving skills in complex or professional and specialized fields of work that require the use of creative and innovative ideas.

The students should have the ability to collect and interpret data and information on which to base their conclusions, including, when necessary and relevant, reflection on social, scientific or ethical issues in their field of study.

The students should be able to cope with complex situations or situations that require the development of new solutions in the academic, work or professional environment within their field of study.

The students should know how to communicate to all types of audiences (specialized or not) in a clear and precise manner, knowledge, methodologies, ideas, problems and solutions in their field of study.

The students should be able to identify their own training needs in their field of study and work or professional environment and to organize their own learning with a high degree of autonomy in all types of contexts (structured or not).

DESCRIPTION OF CONTENTS: PROGRAMME

This course addresses the completion of a complete data science project conducted by groups. Each group must address a project proposed by a cooperating entity. The project should have economic and/or social interest and should involve the use of data science techniques. The project must include at least the following contents:
· Data collection and pre-processing.
· Development of a technical solution based on data science
· Analysis of legal and ethical aspects
· Economic feasibility analysis of the proposed solution
The project must conclude with its presentation and defense by the team that has developed it.

LEARNING ACTIVITIES AND METHODOLOGY

AF3: INDIVIDUAL OR GROUP WORK
AF8: WORKSHOPS AND LABORATORIES.
MD2: PRACTICAL EXERCISES. practical exercises, problems, etc. posed by the instructor
MD3: TUTORIALS. Individualized or group sessions led by the instructor
MD6: LABORATORY PRACTICES. Applied/experimental teaching in workshops and laboratories under the supervision of a tutor.

ASSESSMENT SYSTEM

SE3: TOTAL CONTINUOUS EVALUATION. DDue to the applied character and special characteristics of the subject, the evaluation of the course will be based on assignments, presentations, participation, class expositions, exercises and labs. In addition to technical competencies, transversal competencies (teamwork, communication skills, etc.) will be evaluated.

% end-of-term-examination:	0
% of continuous assessment (assigments, laboratory, practicals…):	100