Big Data

Academic Year: (2022 / 2023) **Review date: 29-04-2022**

Department assigned to the subject: Computer Science and Engineering Department

Coordinating teacher: CARBO RUBIERA, JAVIER IGNACIO

Type: Electives ECTS Credits : 6.0

Year : 4 Semester :

REQUIREMENTS (SUBJECTS THAT ARE ASSUMED TO BE KNOWN)

None

OBJECTIVES

- Analysis and synthesis skills
- Planning and organization skills
- Problem solving skills
- Team work skills
- Capacity to apply theoretical concepts
- Critical Reasoning skills

- Cognitive (acquired knowledge)
  1. Knowledge about main Artificial Intelligence (AI) techniques and concepts.
  2. Knowledge about the application of the different AI techniques in different areas, such as business, banking or finance.
  3. Knowledge about the complexity in implementing intelligent solutions in real environments.

- Instrumental (know how)
  1. Designing intelligent systems to solve practical problems.
  2. Critical analysis of real-life problems.
  3. Using specific tools to develop intelligent systems.

- Attitude
  1. Creativity.
  2. Quality aspects.
  3. Motivation.
  4. Seeking solutions to new problems.

DESCRIPTION OF CONTENTS: PROGRAMME

1.- Introduction to Big Data
2.- Biga Data Architecture
3.- Big Data Techniques
4.- Information Systems and Big Data
5.- Machine Learning and Big Data

LEARNING ACTIVITIES AND METHODOLOGY

Practical activities will include Python programming and the use of a public dataset.

ASSESSMENT SYSTEM

The final exam will evaluate the theoretical contents of the subject, with a weight of 50%.
The practical works carried out along the semester are weighted with the other 50%.

% end-of-term-examination:	50
% of continuous assessment (assigments, laboratory, practicals…):	50

ADDITIONAL BIBLIOGRAPHY

- Sebastian Raschka, Vahid Mirjalili Python Machine Learning, Packt Publishing, 2017