Visualization techniques for Big Data

Academic Year: (2022 / 2023) **Review date: 31-05-2022**

Department assigned to the subject: Computer Science and Engineering Department

Coordinating teacher: ONORATI , TERESA

Type: Electives ECTS Credits : 3.0

Year : 4 Semester :

DESCRIPTION OF CONTENTS: PROGRAMME

1. Sense making and situational awareness in the Big Data era
2. Visual analytics: history, definition and development process
3. HCI principles: perception and interpretation, cognitive issues, semiotics and creativity 4. Interaction with visual and multi-modal interfaces
5. Processing temporal and geographic data
6. Applications of visual analytics

LEARNING ACTIVITIES AND METHODOLOGY

* Lectures: 1 ECTS. They aim to achieve the specific cognitive competencies of the subject and the transversal competencies of analysis and abstraction.
* Practical classes: 1 ECTS. They aim to develop the specific instrumental competencies and the transversal competencies problem solving and application of knowledge.
* Case study: 0,5 ECTS. Started during the practical classes and completed outside of them, it aims to complete and integrate the development of all specific and transversal competencies with the design and implementation of a case study through group work.
* Tutorials: TUTORIALS. Individual or group tutoring sessions organized by the teacher for the students.
* Final exam: 0,5 ECTS. It aims to influence and complement the development of specific cognitive and procedural skills. It reflects especially the use of the lectures.

ASSESSMENT SYSTEM

% end-of-term-examination:	20
% of continuous assessment (assigments, laboratory, practicals…):	80

* Case study: 80%
Design and implementation of visualization techniques applied to actual case studies.
* Final exam: 20%