## Data Design for Sensemaking

**Academic Year:** ( 2022 / 2023 )                                                        **Review date: 21-03-2022**

**Department assigned to the subject: Computer Science and Engineering Department**

**Coordinating teacher: DIAZ PEREZ, MARIA PALOMA**

**Type: Electives  ECTS Credits : 6.0**

**Year :   Semester :**

DESCRIPTION OF CONTENTS: PROGRAMME

I: Data design and integration
1. Context of Data Governance
2. Data integration models (datawarehouse and virtual models)
3. Heterogeneous Data. Mediated Schema. Schema Matching and Mapping.
4. Obtaining Data. Crawlers. Wrappers. Data Integration on the web.
5. NoSQL databases in data integration.
6. Working with data using map-reduce paradigm
II: Data visualization
1. Sensemaking and Situational Awareness in the Big Data Era
2. Visual Analytics: History, Definition and Building Process
3. Principles of Human Computer Interaction: Perception, Cognitive Aspects, Semiotics and Creativity
4. Interaction with Visual Interfaces
5. Geo-spatial and Temporal Data Processing
6. Deep Learning Models
7. Applications of Visual Analytics

**% end-of-term-examination:**                                                     60

**% of continuous assessment (assigments, laboratory, practicals…):**     40