Universidad Zaragoza
1542

Year : 2018/19

60831 - Business intelligence

Syllabus Information

Academic Year:	2018/19
Subject:	60831 - Business intelligence
Faculty / School:	110 -
Degree:	532 - Master's in Industrial Engineering
ECTS:	6.0
Year:	2
Semester:	First semester
Subject Type:	Optional
Module:	---

General information

Aims of the course

Context and importance of this course in the degree

Recommendations to take this course

Learning goals

Competences

Learning goals

Importance of learning goals

Assessment (1st and 2nd call)

Assessment tasks (description of tasks, marking system and assessment criteria)

Methodology, learning tasks, syllabus and resources

Methodological overview

The methodology followed in this course is oriented towards achievement of the learning objectives. A wide range of teaching and learning tasks are implemented, such as

- Lectures, in which the theoretical contents are presented and student participation is encouraged.
- Practice sessions, in which practical applications of the lectures' contents are done and students may do

presentations.
- Computer lab sessions (optional), in which students, in small groups, do a series practical tasks with computer science tools. Students search for information through the network, use data bases and solve more complex exercises or problems.
- Group assignment (optional) based on the course contents supervised by the teacher.
- Tutorials
- Visits and complementary activities.
- Other activities the professor might consider suitable (set of exercises, audio-visual document projection, participation of external guests...) to achieve the learning outcomes.

Learning tasks

The course includes the following learning tasks:

- Activity of type I: **Lectures** (30 hours). Whole group sessions of 2 hours each, where the teacher explains the theoretical contents of the course. Its objective is to facilitate its assimilation, reason why its pursuit is fundamental for the consolidation, and the good development of the learning.
- Activity of type II: **Practice sessions** (15 hours). Whole group sessions of 1 hour each, integrated within lectures to solve problems and cases related to the theoretical contents. In them, the group work is promoted, as well as the discussion and the evaluation of the student's knowledge and abilities.
- Activity of type III: **Computer lab sessions** (8 hours) [Optional for the continuous assessment system]. 4 sessions of 2 hours each in small groups. They complement those concepts that need better understanding, a complicated calculation, a graphical representation, or the use of the network.
- Activity of type I SAW: **Assignment** (44 hours) [Optional for the continuous assessment system]. Group assignment based on the contents of the course and related to the analysis of a technological company. The assignment presentation will be done towards the end of the semester. The assessment criteria include content, materials, language, capacity of synthesis. We will use the POWERBI tool.
- Activity of type VII: **Autonomous work** (34 hours). Homogeneous distribution of work throughout the semester to activities such as study, problem-solving, session preparation, etc.
- Activity of type VIII: **Assessment** (2 hours). Final test.
- **Tutorials** (4 hours). Flexible schedule for students and the teaching staff.

Syllabus

The course will address the following topics:

SECTION A. INFORMATION MARKETS

- Introduction to the Business Intelligence and the digital revolution
- The transformation of the markets and the value of the information
- Speed and decision making
- Generators of value in businesses
- Entrepreneurship in the information markets

SECTION B. INNOVATION IN BUSINESSES

- The innovation in the processes and models of business
- Emergent IT and other technologies for the Company
- Visualization of Data
- The social data and networks

SECTION C. BI TECHNOLOGIES

- Business Intelligence & Data Warehousing
- Technologies and solutions in the organizations
- The Main directorate and the Business Intelligence
- Competitive strategy
- Algorithms of automatic learning for the decision making

SECTION D. GENERATORS OF VALUE IN BUSINESSES

- Areas of business and KPÍs
- Models of Innovating Management
- Presentation of the Data

- Data and optimization of enterprise results. Cases of Success

Course planning and calendar

Further information concerning the timetable, classroom, office hours, assessment dates and other details regarding this course, will be provided on the first day of class or please refer to the EINA website.

Bibliography and recommended resources