Universidad Zaragoza

Academic Year/course: 2023/24

30175 - IT Systems for Management

Syllabus Information

Academic year: 2023/24
Subject: 30175 - IT Systems for Management
Faculty / School: 179 - Centro Universitario de la Defensa - Zaragoza
Degree: 563 - Bachelor's Degree in Industrial Organisational Engineering
ECTS: 4.5
Year: 3
Semester: Second semester
Subject type: Compulsory
Module:

1. General information

This subject establishes a solid foundation for the understanding of the basic vocabulary used by professionals who design, develop, use and maintain Information Systems in organizations. The main objective is that the students become familiar with the methodologies and technologies currently used for the construction and management of Information Systems.

Likewise, the student's aptitudes and attitudes are strengthened so that they is able to work and learn autonomously, integrate knowledge, manage information, develop their critical spirit so that they can analyse and solve problems related to information management through computer applications.

Defence Profile: These approaches and objectives are aligned with the following Sustainable Development Goals (SDGs) of the United Nations Agenda 2030 (https://www.un.org/sustainabledevelopment/es/), in such a way that the acquisition of the learning results of the subject provides training and competence to contribute to some extent to their achievement.

Goal 9: Industry, innovation and infrastructure; Objective 9.c

Goal 16: Peace, justice and strong institutions; Objective 16.5

2. Learning results

1. Identify the Information Systems of an organization/company as a key element for its day-to-day operation.
2. Identify Information Systems as a key element for growth, improvement of competitiveness, and creation of new business formulas and/or products.
3. Know the basic concepts that make up information systems (data vs. information, knowledge, communications, ...) and the technological environment that currently supports them.
4. Know the basic parameters and typical phases that are associated with the development and implementation of an Information System in the organization.
5. Know the usual problems linked to these processes (communication problems, interference in the normal development of the business, maintenance, etc.).
6. Learn about successful cases of the use of Information Systems and the improvements obtained. These success stories serve as a baseline example.

3. Syllabus

1. Introduction to information systems
2. Software engineering
3. Development of an IS:
    1. Requirements definition and analysis

2. Process modelling

4. Introduction to databases

5. Database development: analysis and design

6. Use of IS: decision support tools

4. Academic activities

- **Lectures** [15 hours]: sessions to develop the content of the subject
- **Practical sessions** in the classroom or in the computer lab [25 hours]: problems.
- **Evaluation tests** [5 hours]: theoretical-practical exam and laboratory test.

Total = 45 hours

- **Personal and group study and work; tutorials.**

5. Assessment system

FIRST CALL

Continuous assessment:

1. Theoretical-practical exam, divided into two tests. Evaluation of contents and knowledge of the subject.

3. Project . Completion of a group work with one or more deliverables.

Global test:

Students who do not pass the subject by continuous evaluation or who would like to improve their grade, will have the right to take the global test, prevailing, in any case, the best of the grades obtained.

It will consist of a theoretical-practical exam and an individual practical test in the laboratory.

SECOND CALL

Global test:

Students who do not pass the subject in the first call may sit for this exam.

It will consist of a theoretical-practical exam and an individual practical test in the laboratory.

EVALUATION CRITERIA :

The students who have obtained in the project a grade higher than or equal to 5, will be exempted from the individual practical test in the laboratory in the global tests, maintaining the grade of the project for this part.

In order to pass the subject, a grade higher or equal to 5 must be obtained in the theoretical-practical exam and in the final grade.

The quality and clarity of the answers and the resolution strategies proposed, their adequacy to the specifications and restrictions posed, the adequate application of the resolution methods, the depth of the analysis carried out and, in the case of the project, the coherence between the different sections and the quality of the written presentation

INSTRUMENTS vs. LEARNING RESULTS (RA)

Evaluation instrument	Weighting	RA-1	RA-2	RA-3	RA-4	RA-5	RA-6
Theoretical-practical exam	60%	x	x	x	x	x	x
Project/ practical test in the laboratory	40%	x	x	x	x		x