30175 - IT Systems for Management

<u>**Información del Plan Docente**</u>

Academic Year	2017/18
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

1.1.Introduction

1.2.Recommendations to take this course

1.3.Context and importance of this course in the degree

1.4.Activities and key dates

2.Learning goals

2.1.Learning goals

2.2.Importance of learning goals

3.Aims of the course and competences

3.1.Aims of the course

3.2.Competences

4.Assessment (1st and 2nd call)

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

5.Methodology, learning tasks, syllabus and resources

5.1.Methodological overview

The subject is characterized by both theoretical and practical sessions. Concerning the theoretical sessions, the learning process consists in the participation in the lessons and in the individual study. Supervised active learning and autonomous learning are instead applied in practical sessions through, respectively, the collaborative resolution of case studies/problems in the laboratory and the development of a project in team.

5.2.Learning tasks

The program offered to the student to help him/her achieving the expected results includes the following activities:

- Presentation of the subject contents in class by the professors.
- Resolution of problems/analysis of case studies, individually or in team.
- Development of a project in team, supervised by the professors
- Individual study of the subject by the students.
- Individual tutoring with the aim of revising and discussing the material and topics presented in class.

In particular, the resolution of problems/analysis of case studies will be carried out in the computer science laboratories by applying brainstorming techniques and using specific software tools as a support.

The project will be developed in team (2-5 students), where the students will apply the methods explained in class and use the software tools seen in laboratory.

5.3.Syllabus

The program is structured in three main parts: the first one is an introduction to information systems and to the disciplines that provide the guidelines for their development (topics 1 and 2). The second part focuses on the modelling activities that are carried out during the early phases of the development of an information system (topics 3,4,5 and 6). Finally, the third part is focused on the use of information systems and decision support tools (topic 7):

1. Introduction to information systems
2. Software engineering
3. Unified Modeling Language (UML)
4. Development of an information system: requirements definition and analysis
5. Introduction to databases
6. Development of a database: analysis and design
7. Use of information systems: decision support tools

The program will be available through the Moodle e-learning platform: https://moodle2.unizar.es

5.4.Course planning and calendar

The timetable of the subject will be defined by the center in the academic timetable of the corresponding course. All the sessions are in-class.

Information about the timetable of in-class sessions can be found through the website of the Centro Universitario de la Defensa: http://cud.unizar.es.

The following table shows the distribution of the work of the student for this subject (in hours) during the semester:

In-class hours	45 hours
Theoretical sessions	19 hours
Practical sessions	22 hours
Final assessment	4 hours
Out-of-class hours	67 hours
Individual work	37 hours
Team work	30 hours

Concerning the project to be developed in team, the professors present the project during the first weeks of class together with the planning of the delivery during the semester.

The dates of the final assessment will be officially published in the website of the Centro Universitario de la Defensa: http://cud.unizar.es .

5.5.Bibliography and recommended resources

- Bernardi, Simona; Lacramioara Dranca. Sistemas de Información para la Dirección. Un enfoque guiado por un caso de estudio. Colección textos docentes n.18, Centro Universitario de la Defensa, Zaragoza, 2015.
- Monforte Moreno, Manfredo; Hinarejos Rojo, Aurelio; Herrero Santos, Carlos. Introducción a los sistemas de información para el mando y control militar. Madrid: Ministerio de Defensa, 2010
- Debrauwer L. y Van Der Heyde F. UML2: Iniciación, ejemplos y ejercicios corregidos. 2ª ed. ENI, 2011
- Larman, Craig. Applying UML and patterns: an introduction to object-oriented analysis and design and iterative development / Craig Larman. - 3rd ed. Upper Saddle River, NJ : Prentice Hall PTR, cop. 2005
- Elmasri, Ramez. Fundamentos de sistemas de bases de datos / Ramez Elmasri, Shamkant B. Navathe ; traducción, José Manuel Díaz . - 5ª ed. Madrid [etc.] : Pearson Addison Wesley, D.L. 2007
- Trujillo Mondejar J.C., Mazón López N. y Pardillo Vela J. Diseño y explotación de almacenes de datos. Conceptos básicos de modelado multidimensional. 1ª ed. ECU, 2011
- Laudon, Kenneth C. Management Information Systems: managing the digital firm / Kenneth C. Laudon, Jane P. Laudon. - 12th edition: Pearson Education Limited, 2012.