

Academic Year: ( 2023 / 2024 )

Review date: 05-06-2023

Department assigned to the subject: Mechanical Engineering Department

Coordinating teacher: REVILLA TORREJON, ANTONIO JAVIER

Type: Compulsory ECTS Credits : 6.0

Year : 3 Semester : 2

**REQUIREMENTS (SUBJECTS THAT ARE ASSUMED TO BE KNOWN)**

No prerequisites

**DESCRIPTION OF CONTENTS: PROGRAMME**

- 1 - Management Information Systems vs. Business Processes
  - 1.1.- Management Information Systems. Concept, Typology
  - 1.2.- Business processes vs. Functions
  - 1.3.- Business processes and Management Information Systems
  - 1.4.- Business transactions and Information transactions
- 2 - Interfunctional Business Processes and Integrated Information Systems (ERP)
  - 2.1.- Integration challenges in interfunctional business processes
  - 2.2.- Functional MIS
  - 2.3.- Interfunctional Business Processes and Integrated Information Systems (ERP)
  - 2.4.- Common Database. Implications
- 3 - ERP procurement and selection
  - 3.1.- ERP make vs. buy decision
  - 3.2.- The ERP market. Concentration. Typology
  - 3.3.- Commercial ERP systems vs. Open Source systems
  - 3.4.- ERP selection and procurement process
  - 3.5.- Selection of the Database Management System (DBMS)
- 4 - ERP customization
  - 4.1.- Current process design vs. implicit design within the ERP. Challenges and approaches
  - 4.2.- Adapting the current practice. Business Process Reengineering (BPR)
  - 4.3.- Adapting the ERP. Parameterization vs. customization.
- 5 - ERP implementation
  - 5.1.- ERP implementation projects
  - 5.2.- Gradual vs. Big Bang implementation approaches
  - 5.3.- Key players. Consultants, internal teams
  - 5.4.- ERP post-implementation
- 6 - ERP infrastructure
  - 6.1.- Alternative approaches to ERP infrastructure deployment
  - 6.2.- Implications of adopting IaaS (Infrastructure as a Service) approaches
  - 6.3.- Implications of adopting SaaS (Software as a Service) approaches
- 7 - IS-supported decision making. Approaches
- 8 - Key challenges: Privacy, data protection, ...
- 9 - Practical cases

**ASSESSMENT SYSTEM****FIRST ATTEMPT:**

SE1. END-OF-TERM EXAMINATION, which will evaluate globally the knowledge, skills, and competences acquired in the module.

SE2. CONTINUOUS ASSESSMENT, based on submitted reports, partial tests, and case studies completed throughout the semester

**RESIT (SECOND ATTEMPT):**

Any students who do not pass the module in their first attempt will have the opportunity to re-sit the exam, in which case:

1. If the student completed the continuous assessment: marks will be calculated as per the rules for the first attempt. However, students will have the right to be graded solely according to their marks in the second attempt, should this option be more favourable to them.
2. If the student did not complete the continuous assessment: marks will be 100% based on the resit exam.

<b>% end-of-term-examination:</b>	60
<b>% of continuous assessment (assignments, laboratory, practicals...):</b>	40

#### ADDITIONAL BIBLIOGRAPHY

- Laudon, K.C.; Laudon, J.P. Management Information Systems: Managing the Digital Firm, Prentice Hall, 2017