

Academic Year: ( 2020 / 2021 )

Review date: 11-07-2020

Department assigned to the subject: Mechanical Engineering Department

Coordinating teacher: DURAN HERAS, ALFONSO

Type: Compulsory ECTS Credits : 6.0

Year : 3 Semester : 2

## 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

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