Integrated Information Systems

Academic Year: (2018 / 2019)   **Review date: 10-05-2018**

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

% end-of-term-examination: 60

% of continuous assessment (assigments, laboratory, practicals…):   40