

Academic Year: (2023 / 2024)

Review date: 31-08-2022

Department assigned to the subject: Computer Science and Engineering Department

Coordinating teacher: RUIZ MEZCUA, MARIA BELEN

Type: Electives ECTS Credits : 6.0

Year : 4 Semester :

REQUIREMENTS (SUBJECTS THAT ARE ASSUMED TO BE KNOWN)

Writing and Communication Skills
Principles of Informatics Engineering
Software Verification Techniques

DESCRIPTION OF CONTENTS: PROGRAMME

1 Introduction to Corporate Information Systems: definition, types and applications. Knowledge management. Business models.

- 1.1 Previous Concepts
- 1.2 Definition.
- 1.3 Corporatoin and Information Requirements.
- 1.4 ERP
- 1.5 CRM
- 1.6 Corporate Portals.
- 1.7 Workflow.
- 1.8 DSS
- 1.9 Business models

2. Systems Plan and Project's Plan.Management of Commitments. Alternatives.

- 2.1 Informations System Plan. Concept.
- 2.2 Informations System Plan. Contents.
- 2.3 Informations System Plan and business strategy.
- 2.4 IS Development alternatives.
- 2.5 Project Plan. Concept.
- 2.6 Project Plan. Contents.
- 2.7 Project Plan. Standards.
- 2.8 Commitment: Concept.
- 2.9 Responsibility for commitments.
- 2.10 Managing failed commitments. Consequences of Not-Management
- 2.11 Managing the commitment.
- 2.12 Contract.

3. Integral Corporate Project Management.

- 3.1 The software development process.
- 3.2 Process standard.
- 3.3 Integral activities.
- 3.4 Corporate Project Organization.
- 3.5 Configuration Management in Corporate Projects
- 3.6 Process Maturity.

4. Size and resources estimation.

- 4.1 The estimation process.
- 4.2 Software metrics: concept and types.
- 4.3 Applying a size measure.
- 4.4 Applying a process measure.

5. Time management. Planning and control.

- 5.1 Time management in corporate projects.
- 5.2 Corporate Project Planning.

- 5.3 Planning techniques.
- 5.4 Planning levels. Multi-project planning in corporate environments.
- 5.5 Project control. Importance of project control in corporate environments.
- 5.6 Control issues.
- 5.7 Types of project control.
- 5.8 Project control techniques.

- 6. Quality management. Defects.
- 6.1 Quality in corporate software
- 6.2 Product Quality vs Process Quality
- 6.3 Quality costs.
- 6.4 Quality standards.
- 6.5 Quality assurance
- 6.6 Defects Management.
- 6.7 Testing overview.
- 6.8 The test plan.

- 7. Corporate Information Systems deployment. Change management.
- 7.1 Deployment of the corporate information system.
- 7.2 Deployment of standard systems vs Custom-made software.
- 7.3 Deployment strategies.
- 7.4 Change in corporation.
- 7.5 Changes derived from a new corporate information system.
- 7.6 Resistance to change
- 7.7 Maintenance. Types and services.

- 8. Audits.
- 8.1 Audits in software.
- 8.2 Types of audits.
- 8.3 Audits in corporate projects.
- 8.4 Audit reports.

LEARNING ACTIVITIES AND METHODOLOGY

Lectures: Their aim is to achieve the specific cognitive competences of the subject. 2 ECTS

Practice: They develop the specific instrumental competences afore mentioned. They also aim to develop the specific attitudinal competences. The work involves carrying out the implementation and customization of a business management application as a team.

Academic Work Supervised:

- with professor attendance: Execution of a study from some guidelines introduced by the professor of one of the subject's contents. The work will be presented in class.
- without professor attendance: Exercises and complementary lectures proposed by the professor.
- Experts Talks

Exercises and Exam: Exercises and final evaluation tests. 1 ECTS

ASSESSMENT SYSTEM

The exercises and exams, besides being used as a learning activity, have the double aim of being a measure for the evaluation system. The evaluation system includes the assessment of the academic activities, both supervised and practical, according to the following weighted.

With continuous evaluation (100% grade):

- Three liberating continuous assessment tests
 - First test (10%) Section 1, 2
 - Second continuous assessment test 20%. Section 4
 - Third test continuous evaluation 20%. Section 5
- Two inverted classes.
 - Section 3. 5%. Works in team
 - Section 6. 5%. Work in team
- Practice (Mandatory) (30%).
- Cross-Audit (10%)

***Without continuous evaluation. Single exam (100% note in extraordinary, 60% in ordinary)

% end-of-term-examination:	0
% of continuous assessment (assignments, laboratory, practicals...):	100

BASIC BIBLIOGRAPHY

- Gómez Vieites, Álvaro Sistemas de información : herramientas prácticas para la gestión empresarial , Ra-ma.
- Roger Pressman Ingenieria del Software. 6ª ED. 2006, Mc Graw Hill.
- Steve MC Connell Desarrollo y Gestión de proyectos informaticos, Addison WEsley.
- W. Humphrey Managing Technical People: Innovation, Teamwork and the Software Process, Addison Wesley.

ADDITIONAL BIBLIOGRAPHY

- IPFUG 4.0 International Function Point Users Group (IFPUG).: function Point Counting Practices Manual, IFPUG. Ohio. 1994.
- ISO/IEC 15504.: Draft Standard for Software Process Assessment (Parts 1-9)., ISO 1997.
- Paulk, M. et al.: Capability Maturity Model for Software. Technical Report CMU/SEI-93-TR24, SEI. 1993.
- Whitgift, David. Methods and tools for software configuration management, Methods and tools for software configuration management.