# Corporate information systems development

**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: Compulsory 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 Corporatoins 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 environmets.
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.
61 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. 2ECTS

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 introduces 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. 1ECTS

## 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)

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|---|---|
| **% end-of-term-examination:** | 0 |
| **% of continuous assessment (assigments, 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. Humprey 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.