

SUBJECT TEACHING GUIDE

G669 - Management of Software Projects

Degree in Computer Systems Engineering

Academic year 2023-2024

| 1. IDENTIFYING DATA | | | | | | | | | |
|----------------------------------|---|------------------|----|---------------|------------------|--------------|--|--|--|
| Degree | Degree in Computer Systems Engineering | | | Type and Year | Optional. Year 4 | | | | |
| Faculty | Faculty of Sciences | | | | | | | | |
| Discipline | Subject Area: Software Engineering Mention in Software Engineering | | | | | | | | |
| Course unit title and code | G669 - Management of Software Projects | | | | | | | | |
| Number of ECTS credits allocated | 6 | Term Semeste | | r based (2) | | | | | |
| Web | | | | | | | | | |
| Language of instruction | Spanish | English Friendly | No | Mode of o | delivery | Face-to-face | | | |

| Department | DPTO. INGENIERÍA INFORMÁTICA Y ELECTRÓNICA | |
|------------------|--|--|
| Name of lecturer | CARLOS BLANCO BUENO | |
| | | |
| E-mail | carlos.blanco@unican.es | |
| Office | | |
| Other lecturers | MARIA VICTORIA LLAMAZARES LOPEZ | |

3.1 LEARNING OUTCOMES

- Apply the main techniques and standards to plan software projects.

- Using methods and techniques for the management, control and monitoring of a software development project.

- Knowing how to estimate size, effort and cost of a software project.

- Perform proper planning, analysis and control of risks in a software development project and risks in an information system in operation.



4. OBJECTIVES

Knowing how to plan and manage software projects.

Knowing how to carry out estimations of size, effort and costs in software projects.

Knowing how to identify and manage risks in software projects.

Be capable of planning and monitoring a project through a software tool.

6. COURSE ORGANIZATION

| CONTENTS | | | | |
|----------|--|--|--|--|
| 1 | PROJECT MANAGEMENT FUNDAMENTALS. - Project Management Body of Knowledge (PMBOK). - Basic concepts. Process Groups. Work areas. Interactions between processes. | | | |
| 2 | PROJECT INTEGRATION MANAGEMENT. Starting a project. Project charter. Project management plan. Direct and manage project execution. Monitor and control project work and changes. Close project. | | | |
| 3 | PROJECT SCOPE MANAGEMENT. - Define scope. - Create WBS. - Verify and control scope. | | | |
| 4 | PROJECT TIME MANAGEMENT. - Define, sequence and estimate (resources and durations) activities. - Develop schedule: PERT and CPMCD methods. | | | |
| 5 | PROJECT COST MANAGEMENT. - Estimate costs and determine budget. - Control costs. EVM. | | | |
| 6 | PROJECT RISK MANAGEMENT. - Plan risk management. - Identify risk, perform qualitative and quantitative analysis and plan risk responses. - Monitor and control risks. | | | |
| 7 | SOFTWARE ESTIMATION. Estimation by COCOMO II. Estimation by Use Case Points (UCP). | | | |

| 7. ASSESSMENT METHODS AND CRITERIA | | | | | | | | |
|---|-----------------|----|-----------|--------|--|--|--|--|
| Description | ype Final Eval. | | Reassessn | % | | | | |
| Continuous evaluation | Work | No | Yes | 100,00 | | | | |
| TOTAL 100,00 | | | | | | | | |
| Observations | | | | | | | | |
| Observations for part-time students | | | | | | | | |
| Part-time students can achieve all the theoretical and practical activities by distance working. In this way, they can establish their working hours according to their profesional and personal constraints. | | | | | | | | |



Faculty of Sciences

8. BIBLIOGRAPHY AND TEACHING MATERIALS

BASIC

Guía PMBOK (Project Management Body of Knowledge) 6º edición. Project Management Institute (PMI), 2017