

SUBJECT TEACHING GUIDE

G671 - Quality and Auditing

Degree in Computer Systems Engineering

Academic year 2022-2023

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	G671 - Quality and Auditing				
Number of ECTS credits allocated	6	Term	Semester based (1)		
Web	https://moodle.unican.es/				
Language of instruction	Spanish	English Friendly	No	Mode of delivery	Face-to-face

Department	DPTO. INGENIERÍA INFORMÁTICA Y ELECTRÓNICA				
Name of lecturer	JUAN MARIA RIVAS CONCEPCION				
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Other lecturers	CARLOS BLANCO BUENO ALFONSO DE LA VEGA RUIZ				

3.1 LEARNING OUTCOMES

- Know the main models of software process and product quality.
- Know the main activities performed on software audit.

4. OBJECTIVES

- Being able to analyze product quality and develop action plans for its improvement.
- Know aspects related with process quality, evaluation and improvement.
- Being able to perform IT audits.

6. COURSE ORGANIZATION	
CONTENTS	
1	QUALITY OF INFORMATION SYSTEMS. Definitions of quality and concept of quality in use. Introduction to relevant quality models and standards (ISO 9001, ISO 25000, CMMI). Security concepts and regulations (LOPD, ENS, GDPR).
2	PRODUCT QUALITY. Internal and external product quality. Models, evaluation and measurement (ISO 25000). Software tools for analysing product quality.
3	PROCESS QUALITY. Process evaluation and improvement (CMMI). Auditing.

7. ASSESSMENT METHODS AND CRITERIA				
Description	Type	Final Eval.	Reassessn	%
Workshop	Work	No	Yes	20,00
Project development	Work	Yes	Yes	60,00
Test	Activity evaluation with Virtual Media	No	Yes	20,00
TOTAL				100,00
Observations				
It is recommended to take the following subjects in the same academic year: Quality and Audit, Development Methods and Software Engineering Processes. This is because in a part of the semester the hours of these subjects are unified for developing an integrated project that allows to simulate a real working environment and, at the same time, to evaluate the competences of these subjects.				
Observations for part-time students				
Part-time students can achieve all the theoretical activities and the majority of the practical activities by distance working. In this way, they can establish their working hours according to their professional and personal constraints.				
Those part-time students who have not followed the continuous assessment will be assessed with a final written exam: 40% (for the theoretical part) and a project development: 60% (for the practical part).				

8. BIBLIOGRAPHY AND TEACHING MATERIALS
BASIC
Piattini, M., García, F., García-Rodríguez de Guzmán, I., Pino, F. Calidad de Sistemas de Información (4º Ed.). Ra-Ma. 2018