

SUBJECT TEACHING GUIDE

298 - Quality and safety certification of information systems

Master's Degree in computing engineering

Academic year 2024-2025

1. IDENTIFYING DATA					
Degree	Master's Degree in computing engineering			Type and Year	Compulsory. Year 2
Faculty	Faculty of Sciences				
Discipline	SOFTWARE ENGINEERING				
Course unit title and code	298 - Quality and safety certification of information systems				
Number of ECTS credits allocated	6	Term	Semester based (1)		
Web					
Language of instruction	Spanish	English Friendly	No	Mode of delivery	Face-to-face

Department	DPTO. INGENIERÍA INFORMÁTICA Y ELECTRÓNICA				
Name of lecturer	CARLOS BLANCO BUENO				
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Office					
Other lecturers	MARTA ELENA ZORRILLA PANTALEON MARIA VICTORIA LLAMAZARES LOPEZ				

3.1 LEARNING OUTCOMES
- Know how to manage the quality and security of business applications on the Internet.
- To know how to apply different techniques for the control, supervision and measurement of the quality of a computer system.
- Know how to apply different standards and regulations for the quality management of an IT system.
- Know how to analyze, evaluate and propose improvements for the security of a computer system.

4. OBJECTIVES

- Knowing the main models and standards relating to product quality, process quality and security.
- Quality and security evaluations and audits.
- Using software tools to support quality and security evaluations.

6. SUBJECT PROGRAM

CONTENTS

1	SECURITY CERTIFICATION. Security analysis of computer systems and development of secure software systems.
2	QUALITY CERTIFICATION. - Implementation of systems of quality management (ISO 9001). - Product Quality (ISO 25000). - Process Quality (CMMI, ISO 33000). - Service Management Quality (ITIL, ISO 20000) - Audits. - Business continuity management
3	DATA GOVERNANCE - Digital transformation and data governance. Data as a strategic information asset. - Reference frameworks, standards and models for data governance. - Use cases.

7. ASSESSMENT METHODS AND CRITERIA

Description	Type	Final Eval.	Reassessn	%
Theoretical and practical activities	Work	No	Yes	100,00
TOTAL				100,00
Observations				
Observations for part-time students				
Part-time students can perform remotely all theoretical and most practical activities carried out in the classroom. In this way, they can manage their time to fit with their professional or personal factors.				

8. BIBLIOGRAPHY AND TEACHING MATERIALS

BASIC

Piattini, M., García, F., García-Rodríguez de Guzmán, I., Pino, F. Calidad de Sistemas de Información (6º Ed.). Ra-Ma. 2022

Gonzalez, P. Ethical Hacking: Teoría y práctica para la realización de un pentesting. OxWord. 2023.