

Course Unit	Quality in Information Systems	Field of study	Information Systems
Master in	Informatics	School	School of Technology and Management
Academic Year	2023/2024	Year of study	1
Type	Semestral	Semester	1
Workload (hours)	162	Contact hours	T - 60 TP - 60 PL - TC - S - E - OT - O -
		Level	2-1
		ECTS credits	6.0
		Code	5060-710-1103-00-23

T - Lectures; TP - Lectures and problem-solving; PL - Problem-solving, project or laboratory; TC - Fieldwork; S - Seminar; E - Placement; OT - Tutorial; O - Other

Name(s) of lecturer(s) José Eduardo Moreira Fernandes

Learning outcomes and competences

At the end of the course unit the learner is expected to be able to:

1. Analyze and understand quality in the context of information systems
2. Identify and understand the importance of the definition and specification of information systems
3. Identify and understand techniques for developing quality information systems

Prerequisites

Before the course unit the learner is expected to be able to:

1. Read and understand english texts.
2. Demonstrate previous knowledge of computer application development

Course contents

Study of different perspectives and quality standards in the context of information systems. Definition and specification of information systems. Quality, innovation, and management of development processes.

Course contents (extended version)

1. Quality and information systems
 - Definition, evolution, and quality control
 - Quality perspectives in information systems
 - IS/IT standards and best practices
2. Quality in the definition and specification of information systems
 - Alignment of information systems and business processes
 - Requirements engineering in the quality of information systems
 - Information quality
3. Quality in the development of software-based systems
 - Quality, innovation, and management of development processes
 - Software verification and validation
 - Techniques, tools, and standards

Recommended reading

1. Tworek, K. , "Aligning IT and Business", Springer, 2019.
2. Fernandes, J. , Machado, R. , "Requirements in Engineering Projects", Springer, 2015.
3. Goericke, S. , "The Future of Software Quality Assurance", Springer, 2019.
4. Blokdyk, G. , "Software verification and validation: A Project-Based Tutorial", CreateSpace, 2017.
5. Batini, C. , Scannapieco, M. " Data and Information Quality: Dimensions, Principles and Techniques", Springer; 2016.

Teaching and learning methods

Theoretical-Practical classes for presentation of theoretical concepts and application of the acquired knowledge. Out of classes: Individual study; Research; Practical works.

Assessment methods

- Alternative 1 - (Regular, Student Worker) (Final, Supplementary, Special)
- Practical Work - 100%

Language of instruction

English

Electronic validation

José Eduardo Moreira Fernandes	Tiago Miguel Ferreira Guimaraes Pedrosa	José Carlos Rufino Amaro
11-10-2023	25-10-2023	31-10-2023