

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	Level	2-1
Type	Semestral	Semester	1	ECTS credits	6.0
		Code		5060-710-1103-00-23	
Workload (hours)	162	Contact hours	T -	TP 60	PL -
		TC -		S -	E -
		OT -		O -	

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