SUBJECT TEACHING GUIDE

G656 - Information Systems

Degree in Computer Systems Engineering

Academic year 2023-2024

1. IDENTIFYING DATA					
Degree	Degree in Computer Systems Engineering			Type and Year	Compulsory. Year 2
Faculty	Faculty of Sciences				
Discipline	Subject Area: Software and Information Systems Engineering Compulsory Module				
Course unit title and code	G656 - Information Systems				
Number of ECTS credits allocated	6	Term		Semester based (1)	
Web	http://moodle.unican.es/moodle2/				
Language of instruction	Spanish	English Friendly	No	Mode of delivery	Face-to-face

Department	DPTO. MATEMATICAS, ESTADISTICA Y COMPUTACION
Name of lecturer	RAFAEL DUQUE MEDINA
E-mail	rafael.duque@unican.es
Office	Facultad de Ciencias. Planta: + 3. DESPACHO (3019)
Other lecturers	JUAN HERNANDEZ MARQUES

3.1 LEARNING OUTCOMES
- Know the terminology related to the information systems.
- Understand the role of information systems in organizations
- Students should be able to represent the information requeriments of an organization.
- Students should be able to use the main web technologies for building information systems.
- Students should be able to analyze and manage the risks associated with information systems.
- Know and use the main technologies for building and using information systems.

4. OBJECTIVES
Describe the information system foundations
Present the structure of the organizations and their main information subsystems.
Present the main techniques for user requirements in an information system.
Present the role of XML technology to process information.
Present the role of technologies to support the construction and use of information systems
Provide an overview of the security issues associated with the storage and transmission of information.
Present the main methods to manage the risks associated with information systems.

6. COURSE ORGANIZATION	
CONTENTS	
1	INTRODUCTION: 1. Concepts: System , Information and Information System 2. The system and its environment 3. The usefulness of the technology in the Information Systems 4. Software Engineering
2	INFORMATION SYSTEMS IN ORGANIZATIONS: 1. What is an organization? 2. Planning: Strategy, Tactics, Operational 3. Information Technology and Organizations 4. Structure of information systems in organizations
3	INFORMATION MANAGEMENT: 1. Structuring the Information 2. XML technologies for information management 3. Systems Information Retrieval
4	SECURITY OF INFORMATION SYSTEMS: 1. What is the security of the information? 2. Main concepts: Confidentiality, Integrity, Availability 3. Security Policies 4. Principles of Information Security
5	INFORMATION SYSTEM RISK MANAGEMENT 1. Value of an Information System 2. Vulnerability, Threats and Countermeasures 3. Contingency Plans 4. Methodology MAGERIT 5. ISO / IEC 27005: 2011
6	INFORMATION MANAGEMENT: 1. Structuring the Information 2. XML technologies for information management 3. Systems Information Retrieval
7	WEB INFORMATION SYSTEMS: 1. Internet 2. Main Internet services 3. Building web information systems

7. ASSESSMENT METHODS AND CRITERIA

Description	Type	Final Eval.	Reassessn	%
Laboratory tasks	Laboratory evaluation	No	Yes	30,00
Exam	Written exam	Yes	Yes	30,00
Exercises	Others	No	Yes	10,00
Laboratory tests	Laboratory evaluation	No	Yes	30,00
TOTAL				100,00

Observations

Students will have to pass both the final exam and the laboratory project. The grade of the students who pass only one of these assessments (final exam or laboratory project) will be calculated as the minimum of 4.9 and the average grade obtained.

Observations for part-time students

The part-time students who can not follow the continuous evaluation must pass a laboratory test (40%) and a written exam (60%).

8. BIBLIOGRAPHY AND TEACHING MATERIALS

BASIC

Principios de sistemas de información: un enfoque administrativo. R.M. Stair, G.W. Reynolds. Cengage Learning, 2010.

Sistemas de información gerencial : administración de la empresa digital. K.C. Laudon, J.P. Laudon. Ed. Alwawys Learning Pearson, 2016.