Course Unit	Information Systems			Field of study	Information Systems		
Bachelor in	Management Informatics			School	School of Technology and Management		
Academic Year	2023/2024	Year of study	1	Level	1-1	ECTS credits	6.0
Type	Semestral	Semester	2	Code	9186-709-1205-00-23		

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): João Paulo Ribeiro Pereira, Marisa Cristina Torrado Ortega

Learning outcomes and competences

At the end of the course unit the learner is expected to be able to:
1. Plan, manage and maintain IS in organizations. a) technical skills- analyze, design and management models, architectures and software; b) Social skills- intervene in organizational situations.
2. To acquire a socio-technical attitude towards informatics in organizations, reflected in the theories, methodologies and models to be used (Will use these and other methods in practical situations).

Prerequisites

Not applicable

Course contents

Information and Systems; Systems and Information Technology; Information Systems development; Information Systems development process; and Information Systems Planning.

Course contents (extended version)

1. Information and Systems
   - The field of Information Systems and Information Technology
   - System concept and basic characteristics
   - Data, information and knowledge
   - Big Data concept
2. Information Systems and Information Technology
   - Importance of Information Systems (IS)
   - Information Systems in the Organization
   - Information Technology (IT)
   - Information Management
   - Types of Information Systems: TPS, MIS, DSS and EIS
   - Information Systems Evolution: : ERP; CRM; SCM and BI
   - Information Systems Planning, Development and Management (ISP, ISD, and ISM)
   - Information Systems in Business and Society: Cybercrime, Security; Ethical, Legal, and Social Issues
3. Information Systems Development (ISD)
   - Information Systems development process
   - Information Systems Development methodologies (Traditional and Agile)
4. Information Systems development process
   - Preliminary Study
   - Requirements identification and description
   - Process Modeling (Use Cases) and Data Modeling (ERD and Normalization)
   - Design
   - Testing and Implementation
   - Maintenance

Recommended reading

1. Laudon, K. e Laudon, J. (2017), Management information systems: managing the digital firm. Prentice Hall.
2. Reynolds, George Walter, Stair, Ralph M. (2018), Principles of information systems -Thirteenth Edition, Cengage Learning.
3. Serrano, A. ; Fialho, C. (2005) Gestão do Conhecimento - 2ª Edição Aumentada. FCA, Lisboa.
4. Lopes, F. C. , Morais, M. P. ; Carvalho, A. J. (2005) Desenvolvimento de Sistemas de Informação, Métodos e Técnicas. FCA, Lisboa.

Teaching and learning methods

Theoretical-Practical classes: presentation of theoretical concepts related to Information Systems (IS), IS development methodologies and IS project management. Resolution of project management exercises. Out of classes: Individual and group study of the topics given in theoretical and practical classes.

Assessment methods

1. Alternative 1 - (Regular, Student Worker) (Final)
   - Practical Work - 40%
   - Practical Work - 10% (Class assignments)
   - Final Written Exam - 50% (Minimum grade for the written exam: 7 points)
2. Alternativa 2 - (Regular, Student Worker) (Supplementary, Special)
   - Practical Work - 40%
   - Final Written Exam - 60% (Minimum grade for the written exam: 7 points)

Language of instruction

Portuguese, with additional English support for foreign students.

Electronic validation

João Paulo Ribeiro Pereira	Tiago Miguel Ferreira Guimaraes Pedrosa	José Carlos Rufino Amaro	Nuno Adriano Baptista Ribeiro
29-02-2024	14-03-2024	16-03-2024	17-04-2024