

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
Type	Semestral	Semester	2
Level	1-1	ECTS credits	6.0
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