INSTITUTO POLITÉCNICO DE BRAGANÇA

Course Unit	Information Tecnologies			Field of study	Informatics		
Bachelor in	International Business Management			School	School of Technology and Management		
Academic Year	2020/2021	Year of study	1	Level	1-1	ECTS credits	6.0
Type	Semestral	Semester	1	Code	8487-711-1106-00-20		

Workload (hours)	162	Contact hours	T -	TP 50	PL -	TC -	S -	E -	OT 10	O -

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

Name(s) of lecturer(s): Rui Pedro Sanches de Castro Lopes, Leandro Ismael Pereira Alexandre, Pedro Filipe Fernandes Oliveira

Learning outcomes and competences

At the end of the course unit the learner is expected to be able to:
1. Identify different types of technologies and information systems
2. Model organizational environments
3. Use productivity tools for organizational management
4. Take advantage of the advanced data manipulation mechanisms of a spreadsheet
5. Develop database applications
6. Integrate database applications with spreadsheets

Prerequisites

Before the course unit the learner is expected to be able to:
Demonstrate basic skills in the use of Windows operating system

Course contents

Concepts of technologies and information systems; Organizational environments modeling; Organizational productivity tools; Excel in organizational management; Data modeling; Development of Access applications; Integration of Access with Excel.

Course contents (extended version)

1. Information Technologies
   - Introduction to information technologies
   - Hardware technology
   - Network technology
   - Internet
   - Web technologies
   - Information technologies and business
   - Organizational environments modeling
2. Productivity Tools
   - Email Tools
   - Presentation Tools
   - Word Processing
   - Structure of a document
   - Format a document
   - Styles
   - Objects
   - Indexes
   - Merge
3. Spreadsheet
   - Structure of a spreadsheet
   - Sorting and filtering
   - Graphics
   - Formulas and functions
   - PivotTables reports and PivotCharts
   - Lists and Databases
4. Databases
   - Data modeling
   - Structure of a database
   - Forms
   - Queries
   - Reports
   - Integration of databases with Excel

Recommended reading

1. Business Information Systems - Analysis, design and practice, G. Curtis, D. Cobham, Prentice Hall, 2005
2. Information Systems for Business and Beyond, David T. Bourgeois, The Saylor Academy, 2014 (http: //www. saylor. org/site/textbooks/Information%20Systems%20for%20Business%20and%20Beyond. pdf)
3. How to Use Microsoft® Excel® The Careers in Practice Series, Joseph Manzo (http: //open. umn. edu/opentextbooks/BookDetail. aspx? bookId=70)
4. Getting Started with Derby, Apache Software Foundation (http: //db. apache. org/derby/docs/10. 11/getstart/getstartderby. pdf)

Teaching and learning methods

Lectures of theoretical and practical nature to expose contents and application of knowledge obtained based on problem solving, individual study, bibliographic search and practical work.

Assessment methods

1. Alternative 1 - (Regular, Student Worker) (Final, Supplementary)
   - Practical Work - 60%
   - Final Written Exam - 40%
2. Alternative 2 - (Regular, Student Worker) (Special)

Assessment methods

- Final Written Exam - 100%

Language of instruction

English

Electronic validation

Rui Pedro Sanches de Castro Lopes	José Luís Padrão Exposto	Alcina Maria Almeida Rodrigues Nunes	Paulo Alexandre Vara Alves
14-10-2020	28-10-2020	30-10-2020	23-11-2020