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|---|---|---|---|---|---|---|
| Course Unit | Information Tecnologies | | | Field of study | Informatics | |
| Bachelor in | International Business Management | | | School | School of Technology and Management | |
| Academic Year | 2023/2024 | Year of study | 1 | Level | 1-1 | ECTS credits 6.0 |
| Type | Semestral | Semester | 1 | Code | 8487-711-1106-00-23 | |

| Workload (hours) | 162 | Contact hours | T - | TP 50 | PL - | TC - | S - | E - | OT 10 | O - |
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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) | Rui Pedro Sanches de Castro Lopes, Cosmin Constantinescu, Leandro Ismael Pereira Alexandre |
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### 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. Apache Foundation. (2022). Getting Started with Derby (10. 16). https: //db. apache. org/derby/docs/10. 16/getstart/getstartderby. pdf
2. Bocij, P. , Greasley, A. , & Hickie, S. (2018). Business information systems: Technology, development and management for the modern business (Sixth Edition). Pearson.
3. Edition, T. E. (2014). Information Systems for Business and Beyond (Illustrated edition). Lulu. com.
4. Ledger, L. J. (2022). Excel 2022: The most updated bible to master Microsoft Excel from scratch in less than 7 minutes a day. Independently published.

### 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 | Tiago Miguel Ferreira Guimaraes Pedrosa | Nuno Filipe Lopes Moutinho | José Carlos Rufino Amaro |
|---|---|---|---|
| 11-10-2023 | 25-10-2023 | 25-10-2023 | 31-10-2023 |