Course Unit	-			Field of study	-		
	-			School	School of Technology and Management		
Academic Year	2022/2023	Year of study	1	Level		ECTS credits	2.0
Type	Semestral	Semester	1	Code	5062-717-1102-00-22		

Workload (hours)	54	Contact hours	T -	TP -	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

Learning outcomes and competences

At the end of the course unit the learner is expected to be able to:
1. Understand the importance of data analysis in organizations
2. Know the potential benefits of applying Big Data solutions in the operational management of public entities
3. Understand the Business Intelligence (BI) process and the factors that contribute to maximizing business value
4. Identify the main BI applications
5. Recognize the main features, functions and benefits of the PowerBI tool

Prerequisites

Not applicable

Course contents

1. Data science in organizations 2. Big Data: Challenges and opportunities 3. Business Intelligence 4. Microsoft Power BI tool

Course contents (extended version)

1. Data science in organizations
   - Exponential data growth
   - Importance of data analysis in organizations
   - Data Science
2. Big Data
   - Concept
   - Challenges and opportunities
3. Business Intelligence (BI)
   - Concept and definitions
   - How to interpret data to make the best business decisions
   - BI Tools
4. Microsoft Power BI tool

Recommended reading

1. Santos, Maribel Yasmina and Ramos, Isabel. Business Intelligence - Da Informação ao Conhecimento. FCA 2017.
2. Carvalho, Adelaide. Exercícios de Power BI - Importação, Edição e Visualização de Dados. FCA 2017.

Teaching and learning methods

The Course Unit is fundamentally practical, and all the classes will be theoretical-practical lessons. It is intended that students develop skills through problem solving and application examples. Outside of classes, students will have to develop a project where they apply the acquired concepts.

Assessment methods

- Practical work (100%) - (Regular, Student Worker) (Final, Supplementary, Special)

Language of instruction

Portuguese

Electronic validation

João Paulo Ribeiro Pereira	José Luís Padrão Exposto	Nuno Adriano Baptista Ribeiro
08-11-2022	14-11-2022	22-11-2022