

Managing Digital Information

UGRA_004430

Departments	Dept. of Operations, Innovation & Data Sciences
Teaching Languages	English, Spanish, Catalan
ECTS	4
Teacher responsible	Tarda Valls Jordi - jordi.tarda@esade.edu

Course Goals

The course aims for Business Administration students to understand the fundamentals of algorithmic logic and its application in problem-solving. Additionally, it seeks to equip them with basic programming skills in Python, focusing on data manipulation and automation of administrative tasks. Finally, the course aims to develop critical thinking and analytical skills to enhance data-driven decision-making.

Previous knowledge

No previous programming knowledge required

Prerequisites

There are no prerequisites for this course.

Description

Course contribution to program

A course in algorithmics and Python programming can significantly enhance a Business Administration career by providing tools for data analysis and management, automation of accounting and financial processes, and optimization of operations. It facilitates the understanding and application of statistics in market studies and financial analysis, improves the management of information systems, and supports data-driven decision-making across all areas, from marketing to business sociology.

Short description

In this course, participants will develop algorithmic thinking capabilities that enable them to navigate complex problems. In particular, participants will build a core foundation in algorithmic thinking, the Python programming language and how to use it for data analysis.

Bibliography

- Downey, A. (2020), Think Python: How to Think Like a Computer Scientist, O'Reilly Media, Inc (Book)
- , The Python Language Reference, (Website)
- , The Python Standard Library (Website)

Content

#	Topic
1	Introduction - Basic Data Types

#	Topic
2	Conditionals & Loops
3	Lists & Dictionaries
4	Functions
5	The Pandas & Matplotlib Library

Assessment

Tool	Assessment tool	Category	Weight %
Quizzes/tests	Individual quiz	Retake and ordinary round	20.00%
Group project	Team activities	Retake and ordinary round	10.00%
Group project	Final Team Project	Retake and ordinary round	20.00%
Written and/or oral exams	Final Exam	Retake and ordinary round	50.00%

PROGRAMS

BBA20-Bachelor of Business Administration (BBA) (Undergraduates: Business)
BBA20 Year 2 (Mandatory)

BBA23-Bachelor of Business Administration (BBA) (Undergraduates: Business)
BBA23 Year 2 (Mandatory)

BBE20-Bachelor of Business Administration (BBA) (Undergraduates: Business)
BBE20 Year 1 (Mandatory)
BBE20 Year 2 (Mandatory)