Title:

Microsoft BI Analytics Power Platform Fundamentals

Scope

This proposal seeks to enhance the training offer of the Tomar School of Technology (ESTT) at the Polytechnic of Tomar (IPT) through the introduction of a Microcredential course in Microsoft BI Analytics & Power Platform Fundamentals aimed at exploring core concepts essential to the effective and sustainable use of Microsoft (MS) analytical tools. Applicable to data analysis, modelling and exploration via MS Power Platform across a spectrum ranging from concepts of integration with operational source systems, data processing logic, to the definition of decision support metrics, through the construction of interactive dashboards and the sharing of fundamental information in the creation of reports and data visualisations using MS Power BI, one of Microsoft's most popular Business Intelligence tools.

In line with this, we submit this proposal to create the Microsoft Azure Database Fundamentals Course for approval, awarding 5 ECTS credits and comprising a total workload of 135 hours, including 40 hours of contact hours.

Context

This training program is introduced at a time when data has become a critical asset across all sectors and organisational sizes. Consequently, there is a growing demand for qualified consultants and technical professionals who have expertise in developing the methodologies, approaches and technologies needed to leverage this asset. This makes it easier to consolidate, understand and extract value from the asset. It aims to strengthen data literacy and control among companies and employees, fostering autonomous, strategic decision-making in response to the dynamic and competitive nature of current markets.

Target Audience

Candidates who have successfully completed the complementary microcredential course “MADBF: Microsoft Azure Database Fundamentals”.

This course is aimed at IT technicians and company executives who are interested in acquiring skills in Database Management Systems (DBMS).
Technicians, students, and alumni holding a degree in Computer Engineering or a related field, with demonstrated academic background in Database Management Systems (DBMS) within the scope of Information Technology (IT).

Student Places

The minimum number of places is ten (15).

Course Structure

Module 1 - Business Intelligence (BI) Fundamentals (15 hours)

1. Introduction to Business Intelligence
2. Extract, Transform and Load Processes Methodologies (ETL)
3. Dada Modelling in DataWarehouse Concepts

Module 2 - Introduction to MS Power Platform (5 hours)

1. Introduction to Power Platform and Low-Code Development
2. Getting Started with Power Apps

Module 3 - Process Analysis and Automation in MS Power Platform - Power BI (20 hours)

1. Introduction to Power BI and Data Visualisation
2. Designing Effective Dashboards in Power BI
3. Automating Processes with Power Automate (formerly Flow)
4. Power Platform Integration and Solutions
5. Best Practices and Tips for Success

Assessment Method

Each module will be evaluated through practical exercises conducted in a laboratory setting, with each task assessed according to the criteria established for the corresponding objective. Each objective will be evaluated using a scoring scale ranging from 0 to 20.

In order to pass the module, students are required to obtain a minimum of 50% of the total score and to present and defend their practical assignments or proposed projects.