

# Power BI – Advanced Practice of DAX, Integration, and Optimization

## Description

### Master Power BI Beyond the Basics

You already use Power BI daily but feel like you've reached a plateau? This advanced training is designed to help you take the next big step. Tailored for experienced users, it offers a comprehensive skill boost focused on Power BI's most technical and powerful features.

Over the course of two days, you will learn how to create complex measures using the DAX language, optimize your data models for better performance, and integrate Python scripts or SQL queries directly into your reports. You will also discover how to fully leverage Power BI Service to manage your data in the cloud and share insights efficiently.

### A Practical, Results-Oriented Approach

Each module is designed to meet real-world business needs. This training emphasizes hands-on practice, real-life use cases, and proven methods to help you achieve measurable results quickly.

## Course Content

### Module 1: Introduction to Advanced Power BI

- Course overview
- Expectations and objectives
- Review of Power BI fundamentals
- Introduction to advanced features: DAX, optimization, integration, Power BI Service

### Module 2: In-depth Exploration of DAX

- DAX syntax and functions
- Calculated columns vs. measures
- Time intelligence functions
- Key functions: SUMX, CALCULATE, FILTER

### Module 3: Performance Optimization Techniques

- Efficient data modeling and best practices
- Query optimization for faster loading
- Using Performance Analyzer
- Reducing file size for large datasets
- Managing relationships for better performance

### Module 4: Integrating Python and SQL into Power BI

- Introduction to Python in Power BI
- Data cleaning and statistical analysis with Python

- Connecting to SQL databases
- Writing SQL queries in Power BI

## **Module 5: Power BI Service – Features and Administration**

- Overview of Power BI Service capabilities
- Cloud sharing and collaboration
- Managing workspaces and datasets
- Admin portal: security, monitoring, usage metrics

## **Documentation**

- Digital course material included

## **Participant profiles**

- Data Analysts
- Power BI Developers
- Business Intelligence Consultants
- Reporting Managers
- BI Project Managers

## **Prerequisites**

- Master the basics of Power BI Desktop and Power BI Service
- Understand basic DAX formulas and calculated columns
- Have a solid understanding of SQL queries and data modeling
- Have completed the courses: [Power BI – Data Fundamentals and Visualizations](#) and [Power BI – Dashboard Implementation and Best Practices](#)
- Or have completed the course [Power BI – Build Your Reports and Visuals Independently](#)

## **Objectives**

- Master advanced DAX functions for complex measures and time-based analysis
- Optimize report and data model performance
- Use Performance Analyzer to identify performance bottlenecks
- Integrate Python scripts for data analysis and transformation
- Leverage SQL queries to extract data directly into Power BI
- Manage and administer workspaces and datasets in Power BI Service
- Apply best practices for performance and user experience

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## **Niveau**

Avancé

## **Classroom Registration Price (CHF)**

1750

## **Virtual Classroom Registration Price (CHF)**

1650

## **Duration (in Days)**

2

## **Reference**

MPB-31