

# aractech

Global Learning for Operational Leaders



IT MANAGEMENT AND CYBER SECURITY | IMCS-003

## Power BI: Data Mining and Big Data Analytics

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# Course content

## Why Attend

### Training Course Overview

As businesses increasingly generate vast amounts of data, the ability to transform this information into actionable insights has become a key competitive advantage.

## Course Methodology

## Course Objectives

- Equip participants with skills to process, visualize, and analyze large datasets using Power BI
- Understand data mining techniques and how they can be applied in Power BI
- Teach best practices for handling big data, from importing to transforming and visualizing
- Enable participants to use advanced analytics features, including predictive analytics and clustering
- Develop the ability to identify patterns, trends, and insights from large datasets

## Target Audience

- This training course is suitable to a wide range of professionals but will greatly benefit:
- Data analysts, business intelligence professionals, and IT specialists interested in big data analysis
- Business managers and decision-makers seeking to leverage big data insights for strategic planning
- Professionals in marketing, finance, operations, and research fields aiming to apply data mining techniques

# Course outline

## Detailed course outline

Day-by-day outline for Power BI: Data Mining and Big Data Analytics.

### Day 1 - Introduction to Big Data and Power BI Essentials

- Understanding big data and its applications in business
- Overview of Power BI and its relevance to big data analytics
- Connecting to large data sources and managing data ingestion (SQL, Hadoop, Azure, etc.)
- Introduction to Power Query for data transformation and cleansing
- Hands-on: Loading and preparing a large dataset in Power BI

### Day 2 - Data Modeling and Advanced Data Mining Techniques

- Building efficient data models to handle large datasets
- Introduction to data mining concepts: classification, clustering, and association
- Using DAX (Data Analysis Expressions) for calculated fields and complex measures
- Applying data mining techniques with DAX in Power BI
- Hands-on: Creating data models and applying DAX for data mining

### Day 3 - Data Visualization and Identifying Patterns in Big Data

- Exploring visualizations optimized for big data in Power BI
- Using Power BI visuals to identify trends, patterns, and anomalies
- Interactive dashboards and drill-down features for big data insights
- Advanced visual techniques for clustering, classification, and segmentation
- Hands-on: Building a big data dashboard with advanced visualizations

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### Day 4 - Advanced Analytics and AI Integration in Power BI

- Introduction to AI features in Power BI for predictive analysis and forecasting
- Leveraging the Key Influencers visual to detect trends and factors impacting outcomes
- Using Power BI's Q&A and AI-driven clustering to enhance data mining
- Applying machine learning models and integrating Azure Machine Learning with Power BI
- Hands-on: Implementing AI-powered analytics and predictive insights in Power BI

### Day 5 - Optimizing, Publishing, and Sharing Big Data Insights

- Optimizing big data reports and dashboards for performance and accessibility
- Publishing and securely sharing Power BI dashboards with stakeholders
- Integrating Power BI reports with Microsoft Teams and SharePoint for collaboration
- Case studies: Real-world applications of big data analytics using Power BI
- Final Hands-on Project: Creating and presenting a comprehensive big data analytics dashboard

# Seminar dates

## Available seminar dates

Live dates and pricing for Power BI: Data Mining and Big Data Analytics generated from the course details page.

Date	Location	Format	Fee
15 - 19 June 2026	Munich	Classroom	€2,415
20 - 24 July 2026	Amsterdam	Classroom	€2,975
3 - 7 August 2026	London	Classroom	€2,940
7 - 11 September 2026	Istanbul	Classroom	€1,995
12 - 16 October 2026	Vienna	Classroom	€2,975
9 - 13 November 2026	Barcelona	Classroom	€2,695
14 - 18 December 2026	Paris	Classroom	€3,150

**Live online option**

Online delivery is available at €1,250.