CONCEPT

Power BI Training: Data Modelling, DAX Measures and Dashboard Design

21 – 25 June 2027
London - Central London four-star



Power BI Training: Data Modelling, DAX Measures and Dashboard Design

Ref: 1240_7292 **Date:** 21 – 25 June 2027 **Location:** London - Central London four-star **Fees:** 25300 SAR

Technical depth: Practitioner · **Practical mode:** Lab

Introduction

Many organisations have Power BI licences but few trusted dashboards. Reports are built on flat exports, measures give different totals on different pages and dashboards crowd charts together without a clear message, so managers go back to spreadsheets. The cause is usually the model and the DAX rather than the visuals. This Core Concept course takes analysts through requirements, star-schema modelling, Power Query, DAX and dashboard design to a recognised reporting notation. Working hands on in Power BI, participants build a Power BI Semantic Model and Management Dashboard for their own function.

Course Objectives

- Translate reporting requirements into KPI definitions and select a suitable storage mode
- Build star-schema semantic models with clean Power Query transformations, relationships and a date table
- Write DAX measures with CALCULATE, time intelligence and iterators that return correct results in every filter context
- Design dashboards that follow ISO 24896 and IBCS notation, with drill-through and bookmarks for decision makers
- Secure, tune and publish models using row-level security, Performance Analyzer and deployment pipelines
- Produce a Power BI Semantic Model and Management Dashboard for the participant's own function

Target Audience

- Data and business analysts who build reports for their functions
- Finance and management accountants who produce performance and variance reports
- Reporting officers moving recurring spreadsheet reports into Power BI
- Operations, sales and HR analysts who maintain KPI dashboards
- Business intelligence developers in the early years of Power BI practice

Course Outline

Day 1: Power BI Foundations and Reporting Requirements

- Power BI Components: Desktop, Service, Semantic Models and Apps
- Reporting Requirements Brief and KPI Definition Template
- Import, DirectQuery and Direct Lake Storage Modes
- Power Query Data Profiling and Cleansing Steps
- Existing Report Inventory and Current-State Review

Day 2: Data Modelling Architecture and Reporting Standards

- Kimball Dimensional Modelling: Facts, Dimensions and Grain
- Star Schema Build and Relationship Cardinality Settings
- Date Table Design and Mark as Date Table
- Power Query M Transformations: Merge, Append, Unpivot and Parameters
- ISO 24896:2026 and IBCS Version 2.0 Notation for Reports and Dashboards

Day 3: DAX Measures and Dashboard Building

- DAX Evaluation Context: Row Context and Filter Context
- CALCULATE, Filter Modifiers and Variables
- Time Intelligence Measures: Year-to-Date, Prior Year and Moving Averages
- Iterator Functions: SUMX, AVERAGEX and RANKX
- Dashboard Layout: Visual Selection, Drill-Through and Bookmarks

Day 4: Advanced Modelling, Performance and Security

- Calculation Groups for Time Comparisons and Dynamic Formatting
- Row-Level Security Roles and Dynamic Security with USERPRINCIPALNAME
- Performance Analyzer and DAX Query View Diagnostics
- Many-to-Many Relationships and Bidirectional Filter Risks
- Workspace Roles, Deployment Pipelines and Content Endorsement

Day 5: Lab Work and the Semantic Model and Dashboard

- Sales Performance Lab: Semantic Model and Measure Library Build
- Operations Dashboard Lab: Report Pages Styled to IBCS Notation
- Own-Function Semantic Model Build
- Management Dashboard Build and Row-Level Security Test
- Dashboard Demonstration and Peer Review

Skills You Will Gain

- KPI Specification
- Dimensional Modelling
- Data Transformation
- DAX Measure Writing
- Time Intelligence Analysis
- Dashboard Design
- Report Performance Tuning
- Report Security Configuration

Why Attend This Course

- Return with a working Power BI Semantic Model and Management Dashboard built on your own function's reporting needs
- Stop the argument over which total is right by building one model and one set of measures everyone uses
- Present dashboards that managers read in seconds because every chart follows the same notation
- Compare modelling and design choices with analysts from other sectors and countries

Conclusion

A trusted Power BI dashboard is the visible end of a sound model, correct DAX and disciplined design. This course moves from requirements, KPIs and storage modes, through dimensional modelling, Power Query and reporting notation standards, to DAX measures and dashboard construction, and then to the calculation groups, security, performance and deployment issues that separate a prototype from a production report. The final day is spent in Power BI, and participants leave with a Semantic Model and Management Dashboard ready to publish for their own function.