

ADVANCED EXCEL & POWER BI: DATA ANALYTICS & BUSINESS INTELLIGENCE

Overview

Master the tools businesses use to turn data into insights. This hands-on program covers **Advanced Excel, Power Query, Power Pivot, DAX, and Power BI**, with a strong focus on real-world data, reporting, dashboards, and business intelligence.

Course Modules

Week 1 — Advanced Excel Foundations

➔ Theme: Structuring Data for Analysis

- Advanced data management and Excel Tables
- Structured references & Named Ranges
- Advanced formulas and lookup functions
- Dynamic arrays and error handling
- Data Validation

Project: Build a clean, validated Sales Dataset using advanced Excel formulas.

Week 2 — Excel Data Analysis & Dashboards

➔ Theme: Analyze, Summarize & Visualize

- Advanced PivotTables & Pivot Charts
- Slicers & Timelines
- Conditional Formatting & Data Visualization
- What-If Analysis: Goal Seek, Data Tables & Scenarios
- Interactive Excel Dashboard Design

Project: Create an interactive Sales Dashboard

Week 3 — Power Query: Data Cleaning & Automation

➔ Theme: Transform Raw Data into Usable Data

- ETL & Power Query fundamentals
- Connecting Excel, CSV, folders & web data
- Data cleaning and transformation
- Merge & Append Queries
- Automation and basic M language

Project: Build an automated workflow to consolidate monthly sales files.

Week 4 — Power Pivot, Data Modeling & DAX

➔ Theme: Build a Strong Analytical Foundation

- Power Pivot & Excel Data Model
- Relationships, Fact & Dimension Tables
- Star Schema fundamentals
- DAX fundamentals
- Measures vs. Calculated Columns
- Key DAX functions: SUM, CALCULATE, FILTER & RELATED

Project: Build a multi-table Sales & Customer Data Model.

Week 5 — Introduction to Microsoft Power BI

➔ Theme: From Excel to Business Intelligence

- Business Intelligence & Power BI ecosystem
- Power BI Desktop fundamentals
- Importing data from Excel, CSV, SQL, web & folders
- Power Query in Power BI
- Data preparation and basic transformations

Project: Import and transform a real-world business dataset in Power BI.

Week 6 — Power BI Data Modeling & Advanced DAX

➔ Theme: Build the Analytical Engine

- Data relationships & Cardinality
- Star Schema & Date Tables
- Advanced DAX & Evaluation Context
- Time Intelligence
- KPIs, YoY Growth & Running Totals
- Functions including CALCULATE, SWITCH, RANKX & TOTALYTD

Project: Develop a professional DAX Measure Library.

Week 7 — Data Visualization & Dashboard Design

➔ Theme: Turn Data into Business Insights

- Choosing the right visuals
- Charts, KPIs, Cards, Maps & Matrices
- Slicers, Drill-throughs & Tooltips
- Bookmarks & Page Navigation
- Dashboard Layout & Visual Hierarchy
- Data Storytelling & Professional Dashboard Design

Project: Create an interactive Sales, HR or Finance Dashboard.

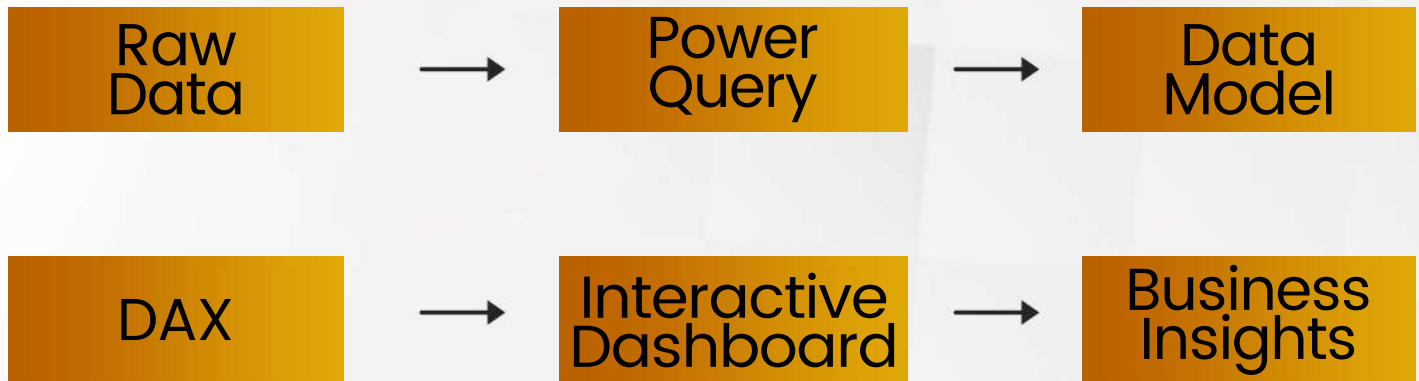
Week 8 — Power BI Service & Capstone Project

➔ Theme: Deploy, Present & Apply

- Publishing and sharing Power BI reports
- Workspaces, Apps & Data Refresh
- Introduction to Row-Level Security (RLS)
- Power BI + Excel integration
- Analyze in Excel

Final Capstone Project

Build an end-to-end Business Intelligence Solution:



Participants will present their dashboard, analysis, and key business recommendations.

Final Assessment

- Capstone Project
- Practical Performance
- Data Analysis Accuracy
- Dashboard Quality
- Business Insights & Presentation



Learning Outcomes

➔ By the end of the program, participants will be able to:

- Analyse and manage data using Advanced Excel.
- Build interactive Excel & Power BI dashboards.
- Clean and automate data with Power Query.
- Create data models using Power Pivot & DAX.
- Develop KPIs and business intelligence reports.
- Transform raw data into actionable business insights.
- Present and communicate data findings professionally.

PROGRAM DETAIL

CLASS: SATURDAY & SUNDAY

TIME: 3:00 PM TO 5:00 PM

TOTAL CREDIT HOURS: 32 HOURS

FEE STRUCTURE:

FEES PER MONTH: PKR 10,000

EARLY BIRD DISCOUNT AVAILABLE

