



Course Title: Excel with Power BI – From Basics to Dashboarding

Duration: 3 Months

Frequency: 3 Classes/Week

Each Class: 2 Hours

Total Classes: ~36

Total Time: 72 Hours

Month 1: Excel for Data Analysis (24 Hours)

◆ **Week 1: Excel Basics & Productivity Tools**

- Excel interface, shortcuts, formatting
- Data types and validation
- Sorting, filtering, and conditional formatting
- Named ranges and formulas

◆ **Week 2: Advanced Excel Functions**

- Logical: IF, AND, OR, IFERROR
- Lookup: VLOOKUP, HLOOKUP, XLOOKUP, INDEX-MATCH
- Text: CONCATENATE, LEFT, RIGHT, MID, TEXT

- Date & Time: TODAY, NOW, DATEDIF, NETWORKDAYS

◆ **Week 3: PivotTables & Charts**

- Creating and customizing PivotTables
- Grouping, slicers, calculated fields
- Charts: Column, Line, Pie, Combo
- Dynamic dashboards with PivotCharts

◆ **Week 4: Excel Data Tools**

- Data cleaning techniques
- Remove duplicates, Text-to-Columns, Flash Fill
- What-If analysis: Scenario Manager, Goal Seek
- Intro to Power Query Editor in Excel

Month 2: Data Modeling & Power BI Fundamentals (24 Hours)

◆ **Week 5: Power BI Introduction & Interface**

- Installing Power BI Desktop
- Power BI UI: Report View, Data View, Model View
- Importing data from Excel, CSV, Web

◆ **Week 6: Power Query (ETL in Power BI)**

- Data cleaning and transformation using Power Query

- Merging and appending queries
- Data types, replace values, column split
- Applied steps and advanced editor

◆ **Week 7: Data Modeling in Power BI**

- Star schema, relationships, normalization
- Relationship view: One-to-many, many-to-one
- Creating and managing relationships
- Hierarchies and calculated columns

◆ **Week 8: DAX Basics (Data Analysis Expressions)**

- Introduction to DAX
- Calculated columns vs Measures
- Basic DAX: SUM, AVERAGE, COUNTROWS, DISTINCTCOUNT
- Time intelligence functions: TOTALYTD, SAMEPERIODLASTYEAR

Month 3: Power BI Visualization, Dashboards & Publishing (24 Hours)

◆ **Week 9: Data Visualization in Power BI**

- Basic visuals: Cards, Bar, Column, Pie, Map, Table, Matrix
- Advanced visuals: Slicers, KPI, Waterfall, Gauge, Decomposition Tree
- Drill-downs and tooltips

- Custom visuals from marketplace

◆ **Week 10: Interactive Reports & Dashboard Design**

- Bookmarks, buttons, page navigation
- Sync slicers and dynamic filtering
- Best practices for dashboard layout & design
- Building a dynamic sales dashboard

◆ **Week 11: Power BI Services (Online)**

- Publishing reports to Power BI service
- Workspaces, dashboards vs reports
- Sharing and scheduling reports
- Row-Level Security (RLS)

◆ **Week 12: Capstone Project & Career Guidance**

- Final project: Build an end-to-end dashboard from Excel data
- Review of DAX, visuals, modeling
- Resume tips for Analyst/BI roles
- Interview questions & real-world scenarios

Tools & Platforms Covered

- Microsoft Excel
- Power BI Desktop
- Power BI Service (Cloud)
- Power Query & DAX
- Excel Power Pivot (Intro)