KOENIG SOLUTIONS · COURSE OUTLINE

Excel with BI – Fast-Track Training Curriculum

Learn to build advanced Excel models and Power BI dashboards, from DAX and data modelling to governed, executive-ready deployment.

24 Hours	6	75
4 HOURS A DAY	MODULES	TOPICS

6 Sessions × 4 hours

COURSE OVERVIEW

This course covers advanced Excel techniques, including formulas, PivotTables, Power Query, What-If analysis and dashboard design. It then moves into Power BI, covering data preparation, data modelling, DAX and advanced visualisations with interactive features. Later modules address publishing, data refresh, Row-Level Security and integration between Power BI and Excel. The final module covers advanced DAX patterns, performance tuning, governance practices and executive data storytelling, finishing with capstone dashboard enhancements.

WHO THIS COURSE IS FOR

- **Excel Users**
- **BI Analysts**
- **Data Analysts**
- **Report Developers**
- **Business Intelligence Developers**
- **Executive Reporting Teams**

LEARNING OBJECTIVES

By the end of the program, participants can:

- Build scalable Excel models & dashboards
- Design optimized Power BI data models
- Write advanced, reliable DAX
- Deploy governed BI solutions
- Communicate insights at an executive level

COURSE SYLLABUS

6 Modules, 75 Topics

01

Advanced Excel: Data Analysis & Productivity

COVERAGE

- Advanced Excel interface, productivity tools & best practices
- **Advanced formulas & functions:** Logical: IF, IFS, SWITCH
- **Advanced formulas & functions:** Lookup: XLOOKUP, INDEX–MATCH
- **Advanced formulas & functions:** Dynamic arrays: FILTER, SORT, UNIQUE
- Text, date & financial functions
- Error handling & formula auditing
- Efficient techniques for large datasets

METHODOLOGY

- Function clustering
- Side-by-side formula comparisons
- Business case–based exercises

OUTCOME

- Participants build optimized, scalable Excel models quickly and accurately

02

Advanced Excel: Automation, Modeling & Dashboards

COVERAGE

- Data validation using formulas & custom rules
- **Advanced PivotTables & PivotCharts:** Calculated fields & measures
- **Advanced PivotTables & PivotCharts:** Slicers & timelines
- **Power Query in Excel:** Importing, cleaning, transforming data
- **Power Query in Excel:** Merge & append queries
- **What-If analysis:** Goal Seek
- **What-If analysis:** Scenario Manager
- **What-If analysis:** Data Tables
- Dashboard design principles
- **Introduction to Excel automation:** Macro recording overview

METHODOLOGY

- One dashboard built live end-to-end
- Guided lab on pivot-driven dashboards

OUTCOME

- Participants automate reports and build interactive Excel dashboards

03

Power BI: Data Preparation & Modeling

COVERAGE

- **Power BI ecosystem:** Desktop, Service & Mobile
- **Connecting to data sources:** Excel, CSV, databases
- **Power Query Editor:** Data transformation & cleansing
- **Data modeling:** Relationships & cardinality
- **Data modeling:** Star schema best practices
- **Introduction to DAX:** Calculated columns vs measures
- **Introduction to DAX:** Core DAX functions

METHODOLOGY

- Same Excel dataset reused
- Model-first BI approach

OUTCOME

- Participants design clean, scalable Power BI data models

04

Power BI: Advanced Analytics & Visualization

COVERAGE

- **Advanced DAX:** CALCULATE, FILTER, ALL, RELATED
- **Advanced DAX:** Time intelligence functions
- **Advanced visuals:** Custom visuals
- **Advanced visuals:** Formatting best practices
- **Interactivity:** Slicers & filters
- **Interactivity:** Drill-down & drill-through
- Interactivity: Tooltips
- Dashboard design principles
- Performance optimization techniques

METHODOLOGY

- Measure-driven visuals
- Optimization tips embedded during live builds

OUTCOME

- Participants create high-performance, interactive BI dashboards

05

Power BI: Deployment, Automation & Business Insights

COVERAGE

- Publishing to Power BI Service
- Data refresh & gateway concepts
- Row-Level Security (RLS)
- Integrating Power BI with Excel & other tools
- Data storytelling best practices

CAPSTONE (EMBEDDED)

- **End-to-end solution:** Excel data → Power Query → Data Model → DAX → Power BI Dashboard

OUTCOME

- Participants deploy secure BI solutions and communicate insights effectively

06

Advanced Analytics, Optimization & Executive Readiness

ADVANCED DAX PATTERNS & BUSINESS LOGIC

- Row context vs filter context (practical decoding)
- **Business DAX patterns:** Running totals
- **Business DAX patterns:** YoY / MoM analysis
- **Business DAX patterns:** Ranking & Top-N analysis
- **Business DAX patterns:** KPI logic using SWITCH
- Debugging mismatched results

PERFORMANCE TUNING & MODEL OPTIMIZATION

- Model optimization techniques
- Cardinality impact
- Query folding concepts
- Visual & report performance tuning

GOVERNANCE & ENTERPRISE READINESS

- Workspace & deployment strategy
- Dataset reuse & certification
- Versioning & update management
- Advanced RLS scenarios

EXECUTIVE DATA STORYTELLING

- Framing insights for leadership
- Decision-driven dashboards
- Avoiding dashboard anti-patterns

CAPSTONE FINALIZATION

- **Enhance dashboards with:** Advanced DAX
- **Enhance dashboards with:** Performance optimizations
- **Enhance dashboards with:** Executive-ready insights
- Scenario simulations (leadership Q&A)

OUTCOME

- Participants deliver enterprise-ready, decision-grade analytics solutions

NOTES

Program Design Logic (Client Assurance)

- No topic removed – all original content retained
- Reduced repetition across Excel & Power BI
- Business use-case–driven delivery
- Single end-to-end dataset used throughout
- Capstone embedded across sessions

WHAT IS INCLUDED

Everything You Need to Succeed

- Koenig course material for every module
- Delivery by certified instructors and subject matter experts
- Hands-on exercises throughout the course
- Course completion certificate from Koenig

ABOUT KOENIG

Who We Are

Established in 1993, Koenig Solutions is a globally recognised training provider with 35+ technology partnerships, 5,000+ training programmes and a network of certified instructors and subject matter experts, supporting individuals and enterprise teams worldwide.

FLEXIBLE DELIVERY

Learn the Way That Suits You

Classroom Training | Live Online Classes (ILO) | Fly-Me-A-Trainer (FMAT) | Flexi (Self-Paced) | 1-on-1 Training

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