

Advanced Excel & Power BI – Fast-Track Analytics Program

Total Duration: 24 Hours (6 Sessions × 4 Hours)

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

Session 1 – Advanced Excel: Data Analysis & Productivity

Coverage

- Advanced Excel interface, productivity tools & best practices
- Advanced formulas & functions:
 - Logical: IF, IFS, SWITCH
 - Lookup: XLOOKUP, INDEX–MATCH
 - 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.

Session 2 – Advanced Excel: Automation, Modeling & Dashboards

Coverage

- Data validation using formulas & custom rules
- Advanced PivotTables & PivotCharts:

- Calculated fields & measures
- Slicers & timelines
- Power Query in Excel:
 - Importing, cleaning, transforming data
 - Merge & append queries
- What-If analysis:
 - Goal Seek
 - Scenario Manager
 - 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**.

Session 3 – 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
 - Star schema best practices
- Introduction to DAX:
 - Calculated columns vs measures

- Core DAX functions

Methodology

- Same Excel dataset reused
- Model-first BI approach

Outcome

Participants design **clean, scalable Power BI data models**.

Session 4 – Power BI: Advanced Analytics & Visualization

Coverage

- Advanced DAX:
 - CALCULATE, FILTER, ALL, RELATED
 - Time intelligence functions
- Advanced visuals:
 - Custom visuals
 - Formatting best practices
- Interactivity:
 - Slicers & filters
 - Drill-down & drill-through
 - 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**.

Session 5 – 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

Wrap-Up

- Review of best practices
- BI roadmap & next steps

Outcome

Participants deploy **secure BI solutions** and communicate insights effectively.

Session 6 – Advanced Analytics, Optimization & Executive Readiness

Coverage

Advanced DAX Patterns & Business Logic

- Row context vs filter context (practical decoding)
- Business DAX patterns:
 - Running totals
 - YoY / MoM analysis
 - Ranking & Top-N analysis
 - 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
 - Performance optimizations
 - Executive-ready insights
- Scenario simulations (leadership Q&A)

Outcome

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

Final Capability Outcomes

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

If you want, I can next:

- Convert this into a **client proposal deck**
- Create **assessment rubrics**
- Map this to **job roles (Finance, Ops, Sales, HR)**
- Provide a **trainer delivery guide**

Just tell me how this will be used.