



**British Training**

**Excel Mastery Unleashed - Advanced Functions, Power Query & Power  
Pivot Integration for Dynamic Data Analysis Training Course**

**#AB3328**

# **Excel Mastery Unleashed - Advanced Functions, Power Query & Power Pivot Integration for Dynamic Data Analysis Training Course**

## **Introduction:**

In an era where data drives decisions, mastering Microsoft Excel is no longer optional for professionals seeking to optimize workflows and deliver actionable insights. The British Training Center presents this comprehensive program, designed to transform participants into Excel power users. By blending advanced formulas, automation tools, and data modeling techniques, this course equips learners to tackle complex challenges with precision and efficiency. Whether streamlining reports or analyzing vast datasets, participants will gain the expertise to excel in their roles.

## **Training Objectives and Impact:**

### **By the end of this program, participants will be able to:**

- Master advanced Excel functions (e.g., XLOOKUP, INDEX-MATCH, and dynamic arrays) for complex data manipulation.
- Automate repetitive tasks using Power Query to import, clean, and transform data from multiple sources.
- Build interactive dashboards and reports with Power Pivot and DAX (Data Analysis Expressions).
- Design dynamic, error-free spreadsheets using named ranges, data validation, and conditional formatting.
- Integrate Excel with external databases and APIs for real-time data analysis.
- Troubleshoot formula errors and optimize workbook performance for large datasets.
- Create macros and VBA scripts to automate workflows and enhance productivity.
- Apply advanced pivot table techniques for multi-layered data summarization.

## **Targeted Competencies and Skills:**

- Advanced data analysis and visualization.
- Automation and workflow optimization.
- Mastery of Excel's Power Suite (Power Query, Power Pivot).
- Complex formula construction and error handling.
- Dynamic reporting and dashboard design.
- Problem-solving with large datasets.

## **Target Audience:**

### **This program is tailored for:**

- Business analysts, finance professionals, and data managers seeking advanced Excel expertise.
- Project managers and administrators responsible for data-driven reporting.
- IT professionals aiming to integrate Excel with enterprise systems.
- Graduates and career changers preparing for roles requiring advanced Excel skills.
- Professionals in any field looking to replace manual processes with automated solutions.

## Course Content:

### Unit One - Advanced Excel Functions for Complex Data Analysis:

- Deep dive into logical functions (IFS, SWITCH) and lookup functions (XLOOKUP, INDEX-MATCH).
- Utilizing dynamic array functions (FILTER, SORT, UNIQUE) for spill ranges.
- Advanced text manipulation with TEXTJOIN, CONCAT, and REGEX.
- Statistical analysis using AGGREGATE, SUMPRODUCT, and FORECAST.
- Nested formulas and LAMBDA functions for custom calculations.
- Error handling with IFERROR, ERROR.TYPE, and Data Validation.

### Unit Two - Power Query: Transforming Data Like a Pro:

- Connecting to multiple data sources (Excel, CSV, SQL, web).
- Cleaning and shaping data: removing duplicates, pivoting/unpivoting columns.
- Merging queries and creating custom columns with M language.
- Automating refresh cycles and building parameterized queries.
- Advanced transformations: grouping, fuzzy matching, and error logging.
- Integrating Power Query with Excel Tables and Pivot Tables.

### Unit Three - Power Pivot & DAX for Advanced Data Modeling:

- Building a data model with relationships between multiple tables.
- Writing DAX formulas for calculated columns and measures.
- Time intelligence functions (TOTALYTD, SAMEPERIODLASTYEAR).
- Creating KPIs and hierarchies for interactive reports.
- Optimizing data models for performance and scalability.
- Visualizing results with Power Pivot-driven Pivot Charts.

### Unit Four - Automating Tasks with Macros & VBA:

- Recording and editing macros for repetitive tasks.
- Writing VBA scripts to manipulate cells, sheets, and workbooks.
- Building user-defined functions (UDFs) for custom calculations.
- Automating data imports and report generation.
- Creating interactive forms with UserForm controls.
- Debugging code and handling errors in VBA.

### Unit Five - Advanced Dashboards & Collaborative Tools:

- Designing interactive dashboards with slicers, timelines, and drill-throughs.
- Integrating Power Query, Power Pivot, and Pivot Tables into dashboards.
- Using conditional formatting and sparklines for visual impact.
- Sharing workbooks via Excel Online and Teams.
- Protecting data with sheet/workbook protection and sensitivity labels.
- Best practices for version control and collaborative editing.