Course Outline
Microsoft Excel - Advanced (Level 2)

Duration	**6 hours** - (Can be Delivered over **Two – 3 Hour Sessions** or **One – 6 hour Session**)
Audience	Experienced Excel users who want to build sophisticated formulas, consolidate data, troubleshoot workbooks, create an interactive dashboard from one data source and explore Power Query.
Pre-Requisites	Participants must be confident with Advanced Level 1 topics, including dynamic arrays, XLOOKUP, advanced logical formulas, formula-driven Conditional Formatting and PivotTables.
Delivery	Live virtual, with demonstrations, guided practice, discussion and supplied exercise files.
Group Size	Recommended maximum: 10 participants for an interactive session

Course objective
Develop sophisticated Excel solutions using advanced dynamic-array formulas, lookup techniques, analytical functions and auditing tools. Participants will build an interactive sales dashboard from a single structured data source and gain practical experience of a refreshable Power Query process.

Learning Outcomes

- Stack and reshape data dynamically using VSTACK, HSTACK, TOCOL and TOROW
- Build nested dynamic-array formulas using multiple conditions, dates and partial matches
- Use advanced XLOOKUP techniques
- Audit and troubleshoot formulas in complex workbooks
- Prepare & create a Dynamic (self-automating) Excel Dashboard
- Create PivotTables, Pivot Charts, slicers and year-on-year comparisons for an interactive dashboard
- Build a Power Query process to import, transform, load and refresh data

Module 1: Stacking and Reshaping Dynamic Arrays

- VSTACK and HSTACK
- TOCOL and TOROW
- CHOOSECOLS and CHOOSEROWS
- Combining similarly structured worksheets
- Managing differently sized arrays and errors

Module 2: Advanced Nested Dynamic-Array Formulas

- Nest FILTER, UNIQUE and SORT
- Multiple AND/OR conditions
- Date-range filtering
- Partial-text and case-sensitive criteria
- Return selected columns
- Combine FILTER with TAKE and DROP
- SEQUENCE and RANDARRAY

Module 3: Advanced Lookups

- XLOOKUP with multiple criteria
- Return multiple columns
- Wildcard matching
- Exact and approximate matching
- Bottom-up searches
- XLOOKUP nested with text and array functions
- Approximate-match VLOOKUP

Module 4: Formula Auditing and Analytical Techniques

- Trace Precedents and Dependents
- Show Formulas
- Evaluate Formula
- Error Checking
- Watch Window
- Go To Special
- RANK, FREQUENCY and FORECAST
- VALUE and ABS

Module 5: Advanced Conditional Formatting

- Multiple-condition rules
- Dynamic date ranges
- Wildcards and partial text
- Exception highlighting
- PivotTable Conditional Formatting
- Rule priorities

Module 6: Build a Dynamic (self-automating) Excel Dashboard

- Create Multiple Pivot Tables from same Data Source
- Create Summary Reports
- Create % Difference Reports
- Create & Connect Slicers to multiple Pivot Tables
- Create KPI's
- Create a "Clear Selections" button using a macro
- Create a Timeline
- Create Custom Chart Templates

Module 7: Introduction to Power Query

- What is Power Query?
- Extract, Transform and Load
- Power Query versus formulas and copy-and-paste
- Import data from an Excel Spreadsheet
- Navigate the Power Query Editor
- Automated Data Cleaning
- Automated Data Transformation
- Close & Load
- Update the source and Refresh
- Create a PivotTable from prepared data