# Microsoft Excel INTERMEDIATE – Essential Functions in Excel



#### Course overview

This training program is designed to address the tool-sets that take participants from beginner to high-productivity user. The course covers the two most requested areas after the introduction level – the first looks at VLOOKUP functionality (including XLOOKUP and INDEX/MATCH) and IF functions, and how to work with large data ranges effectively through named ranges. The second area looks at advanced database manipulation techniques, and takes a deep dive into effective methods of extracting meaning from Excel databases quickly.

# Course duration, delivery method and cost-free customisation

Full course duration is 1 day, but can be modified for delivery in shorter blocks. Additionally, this course can be customised at no additional cost to include topics from our other courses. While designed to be delivered on-site at your premises to individuals or groups, this course is also available through live facilitator-led remote-access on-line learning to individuals or groups.

# Learning outcomes

- Learn to build well-structured VLOOKUP, XLOOKUP, CHOOSE and INDEX/MATCH functions, so they're easy to create and modify
- Understand how to create well-designed IF functions, then building on this to create "nested" functions (functions within functions)
- · Understand how to use named ranges to turn large datasets into easily controllable areas, making building complex formulas easier
- Move past basic filtering to create high-level filtering structures that automatically calculate, as well as perform both AND and OR-related functions
- Learn to build and manipulate PivotTables quickly, including using Slicers to apply filter conditions to multiple pivot tables at the same time

#### **Absolute and Mixed References**

- Absolute reference overview
- Creating absolute references (for example \$A\$1)
- Creating mixed references (for example A\$1 and \$A1)

#### Named Ranges

- Rules for naming ranges
- Absolute references versus named ranges
- Using named ranges as a "go to" tool
- The Name Manager
- · Naming tables and larger ranges
- Creating dynamic named ranges with tables

### IF and Logical Functions

- IF functions overview
- IF functions returning text
- IF functions with absolute references
- Integrating named ranges into your formulas
- IF functions returning numeric values
- Nested IF functions
- AND / OR functions
- IFERROR functions

#### **LOOKUP Functions**

- VLOOKUP / XLOOKUP range and exact match
- VLOOKUP / XLOOKUP exact match within databases
- INDEX/MATCH
- CHOOSE

#### **Excel Tables**

- Creating and naming Excel tables
- Filtering and formatting Excel tables
- Removing duplicates
- Adding total rows
- · Converting Excel tables to ranges

#### **Advanced Filters**

- AND/OR solutions with the Advanced Filter
- Using the Advanced filter to extract AND/OR date and number ranges
- Extracting unique values

## **PivotTables**

- Summing with PivotTables
- Using multiple fields
- The PivotTable Analyze and Design ribbon tabs
- Counting data
- Filtering within the PivotTable
- Filtering using Slicers
- Placing multiple PivotTables on one sheet
- Using Slicers across multiple Pivot-Tables
- Showing database subsets
- Showing blank cells as zero
- Formatting numeric values
- Formatting the PivotTable
- Subtotals and grand totals
- · Regrouping Dates
- · Filtering using Timelines
- Comparative calculations
- Creating PivotCharts
- Modifying PivotCharts

# **Subtotalling and Grouping**

- Creating groups using Auto Outlining
- Creating manual groups
- Using the Subtotal tool
- · Creating nested subtotals
- Copying subtotalled lists

#### **Data Validation**

- Numeric validation
- Providing guidance via input and error messages
- Date validation
- Creating data lists
- · Copying data validation
- · Identifying cells with invalid data
- Using Tables and INDIRECT within data validation
- Creating dependent drop-down lists

# **Custom Formatting**

- Numeric and text custom formats
- Formatting numbers with text characteristics
- Using Format Painter to copy custom formats
- Combining text with number formatting
- Positive; Negative; Zero; Text structures
- · Lining up along decimals