

Microsoft Excel (5 days)

Format worksheets and workbooks

- Modify page setup
- Adjust row height and column width
- Customize headers and footers Customize options and views

Customize the Quick Access toolbar

- Display and modify workbook content in different views
- Freeze worksheet rows and columns
- Change window views
- Modify basic workbook properties
- Display formulas

Prepare workbooks for collaboration

- restrict editing
- protect worksheets and cell ranges
- protect workbook structure
- configure formula calculation options
- manage comments

Use and configure language options

- configure editing and display languages
- use language-specific features

Fill cells based on existing data

- fill cells by using Flash Fill
- fill cells by using advanced Fill Series options

Format and validate data

- create custom number formats
- configure data validation
- group and ungroup data
- calculate data by inserting subtotals and totals
- remove duplicate records

Insert references

- Insert relative, absolute, and mixed references
- Reference named ranges and named tables in formulas

Apply advanced conditional formatting and filtering

- create custom conditional formatting rules
- create conditional formatting rules that use formulas
- manage conditional formatting rules

Perform logical operations in formulas

- perform logical operations by using nested functions including the IF(), IFS(), SWITCH(), SUMIF(), AVERAGEIF(), COUNTIF(), SUMIFS(), AVERAGEIFS(), COUNTIFS(), MAXIFS(), MINIFS(), AND(), OR(), and NOT() functions

Look up data by using functions

- look up data by using the VLOOKUP(), HLOOKUP(), MATCH(), and INDEX() XLOOKUP() functions

Use advanced date and time functions

- reference date and time by using the NOW() and TODAY() functions
- calculate dates by using the WEEKDAY() and WORKDAY() functions
- Calculate working days with NETWORKDAYS() function

Perform data analysis

- summarize data from multiple ranges by using the Consolidate feature
- perform what-if analysis by using Goal Seek and Scenario Manager
- forecast data by using the AND(), IF(), and NPER() functions
- calculate financial data by using the PMT() function

Troubleshoot formulas

- trace precedence and dependence
- monitor cells and formulas by using the Watch Window
- validate formulas by using error checking rules
- evaluate formulas

Create charts

- Create charts

- Create chart sheets
- Add data series to charts
- Switch between rows and columns in source data
- Add and modify chart elements

Format charts

- Apply chart layouts
- Apply chart styles
- Add alternative text to charts for accessibility

Create and modify advanced charts

- create and modify dual axis charts
- create and modify charts including Combo, Funnel, Histogram, Map, Sunburst, and Waterfall charts

Filter and sort table data

- Filter records
- Filter records with multiple columns
- Filter records with conditions
- Performing Advance Filter
- Sort data by multiple columns

Create and modify PivotTables

- create PivotTables
- modify field selections and options
- create slicers
- group PivotTable data
- add calculated fields
- format data

Create and modify PivotCharts

- create PivotCharts
- manipulate options in existing PivotCharts
- apply styles to PivotCharts
- creating dashboard in Excel

Create and modify simple macros

- record simple macros
- name simple macros
- edit simple macros

Introducing Visual Basic for Applications

- What is VBA?
- What is a Macro?
- What can Macros do?
- To use or Not to use Macros?
- Macro – The 5 Tenets
- Need to check your security options
- How do I access VBA?
- Macro Security Settings
- Displaying and reviewing the Developer Tab in the Ribbon

VBA Editor & Recording Macros

- Opening a Macro-Enabled Workbook
- Opening and Using VBA Editor
- Opening and Closing VBA Editor
- Explanation of the VBA Screen Layout / Elements
- Using the Project Explorer - Ctrl + R
- Working with the Properties Window - F4
- Using the Editor Work Pane
- Introducing the Immediate Pane - Ctrl + G
- Commenting the code?
- What are the limitations of recording a macro?
- Can I record code to get code?
- Practical - Recording a Macro and all that this involves
- Saving a Macro-Enabled Workbook (.xlsm)

Modules and Procedures

- Program design and concepts
- A Good Spreadsheet Application
- Code Format / Layout
- To Dim or Not to Dim? In other words, Why Dim?

- How to Declare a Variable / Dim / Private / Public
- Understanding Constants and how to Declare them
- Modules – Understanding how to Create, Name, Edit, Copy and Remove
- Practical on Modules
- Procedure aka Subroutine aka Sub
- Sub Naming conventions

Understanding Objects, Properties, Methods and Events

- Understanding Objects
- Understanding Object hierarchy
- Referring to Objects
- Application Objects – Practical in file review
- Objects, Properties, Methods, Events
- Working with Properties
 - Working with Methods
 - Working with Events
 - Reference to Opening Workbook Events

Using Expressions and Variables

- Using Expressions / Statements
- What is a Variable and how to assign one?
- Working with Variables
- Variable Naming
- Creating and using Variables
- Understanding and using Data Types
- Practical - Using Locals Window to find Variable Data Types

Manipulating Data

- Working with the ranges and selections
- How to use the cells property to select a range
- How to reference Range(s) and a Range Name
- How to select a range in Excel
- How to use the offset property to refer to a range relative to a starting position
- How to use the Activecell Property
- How to use the CurrentRegion and Address Properties
- Using the columns and rows properties to specify a range
- Determining the extent of data – last cell / last row
- Copying and pasting cells / data

- Improving Performance with ScreenUpdating and DisplayAlerts

Formatting Cells and Working with Strings

- Formatting Cells
- How to change the
- Background colour of a cell
- Cell alignment
- Column width
- Formatting borders
- Font – Style, Size, Colour, Bold, Italic, Underline
- Using With ... End, With Statement
- Working with Strings (prior knowledge of related Excel formulas is required)
- Changing case - Upper, Lower and Proper
- Trim and Spaces
- Len, Replace, Instr
- Left, Right, Mid
- This module contains two practicals for delegates to try post course to reinforce their learning

Workbooks and Worksheets

- Working with Workbooks
- Creating, Saving, Switching and Closing
- Working with Worksheets
- Adding Worksheets in VBA code
- Naming and renaming Worksheets
- Deleting Worksheets
- Copying and moving Worksheets
- This module also contains reference on how to create your own VBA Objects

Controlling Program Execution / Decision Structures

- Understanding Control-of-Flow Structures (If...Then... End If and Loops)
- Using the following:
- If Statement, If...End If, Single / Multiple Condition, If Else Statement,
- If...Else ... End If, Conditions, If Elseif Statement, If...Elseif ... End If, Conditions, Nested Ifs
- Select Case...End Select Statement
- Do...Loop, Do...Until, Do...While Statements
- For...To...Next Statement, For Each...Next Statement

Using Message Boxes, Input Boxes and Running Macros

- Creating and Using Message Boxes – MsgBox and Input Boxes – InputBox
- Running a Macro from within Excel
- Assigning a Keyboard Shortcut to a Macro
- Assigning and launching a Macro from a TextBox, a Toolbar Icon