Grapevine Computing

Microsoft Excel - Formatting, Functions and Formulas

Duration: **One day**

Overview - This course will introduce the user to creating, formatting and printing worksheets. From late morning, onwards the delegate is introduced to simple functions and then to creating formulas to extract and use spreadsheets effectively.

Who Should Attend - This course is designed for either new users of Excel, those who have primarily been using the system to input data and print worksheets created by others or users wishing to understand and created formulas and functions. The prime aim of this course is to ensure users are equipped with the necessary skills to create a professional looking spreadsheet complete with basic formulas and functions.

Content

Getting Started

➢ Create and save workbooks
➢ Understand Excel screen elements
➢ Select and edit cells
➢ Shortcuts to input text
➢ Using the help menu

Building a worksheet

➢ Enter text, numbers, dates
➢ Adjusting the sizes of columns and rows
➢ Select ranges of data using both mouse and keyboard methods
➢ Use copy and paste
➢ Use drag and drop
➢ Undo
➢ Aligning cell content
➢ Merging cells
➢ Formatting text, numbers and dates
➢ Using format painter
➢ Adding shading
➢ Adding borders
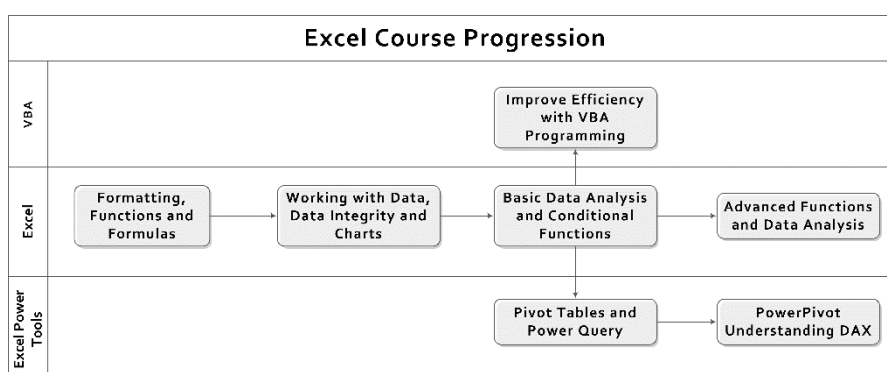➢ Amending font size and colour

Working with Functions

➢ Understand the principles behind creating functions
➢ Using the Fill handle
➢ Use AUTOSUM, AVERAGE
➢ Use COUNT, COUNTIF,
➢ COUNTBLANK, COUNTA
➢ MAX, MIN
➢ LARGE, SMALL, MODE, MEDIAN
➢ Combining functions to produce calculations

Printing worksheets

➢ Print preview
➢ Adding headers and footers
➢ Changing orientation
➢ Aligning worksheets

Creating Formulas

➢ Understand how and why to use brackets
➢ Understand the rules to follow when creating formulas
➢ Creating formulas
➢ Hands on practice using formulas in spreadsheet examples

Excel Course Progression

VBA			Improve Efficiency with VBA Programming		
Excel	Formatting, Functions and Formulas	Working with Data, Data Integrity and Charts	Basic Data Analysis and Conditional Functions	Advanced Functions and Data Analysis	
Excel Power Tools			Pivot Tables and Power Query	PowerPivot Understanding DAX	

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Microsoft Excel – Working with Data, Data Integrity and Charts

Duration: One day

Overview - This course introduces features that enable data to be extracted from the spreadsheet and manipulated to improve data analysis. Please note that functions and formulas are introduced and explained in the Formatting, Functions and Formulas course and are only used in this course where appropriate to complete other tasks.

Who Should Attend - Users should be familiar with the content of the Formatting, Functions and Formulas course or comfortable creating a basic spreadsheet and simple formulas. The prime aim of this course is to introduce users to some of the many tools available within Excel that enable better analysis and manipulation of data.

Content

General Techniques

➢ Using paste special
➢ Add comments to cells
➢ Apply conditional formatting to text and numbers
➢ Use absolute references to improve the efficiency of spreadsheets
➢ Flash fill and sparklines

Creating Charts

➢ Use the Chart Wizard
➢ Amend the chart type
➢ Change the appearance of a chart
➢ Change the axis parameters
➢ Format the text on legends, headings and axis
➢ Add pictures to pie charts
➢ Create and manipulate 3D charts

Using the Database Feature in Excel

➢ Use the form feature to quickly add, search and delete data
➢ Use AutoFilter to search for data
➢ Use the custom filter
➢ Find the highest or lowest entries in the list
➢ Sort data

Using Subtotals & Outlining

➢ Add automatic subtotals to long lists of data
➢ Remove subtotals
➢ Add Outlining to quickly hide and show rows and columns

Working with Multiple/Large Worksheets

➢ Move and copy worksheets
➢ Use group mode to quickly apply changes
➢ Link worksheets
➢ Print large worksheets
➢ Insert page breaks
➢ Repeat column and row headings on multiple pages
➢ Print row and column headings
➢ Print gridlines

Customising Workbooks

➢ Freeze workbooks
➢ Split the screen
➢ Hide columns and rows
➢ Save customised screen layouts
➢ Validate data entry to minimise input errors
➢ Protect worksheets and workbooks

Excel Course Progression
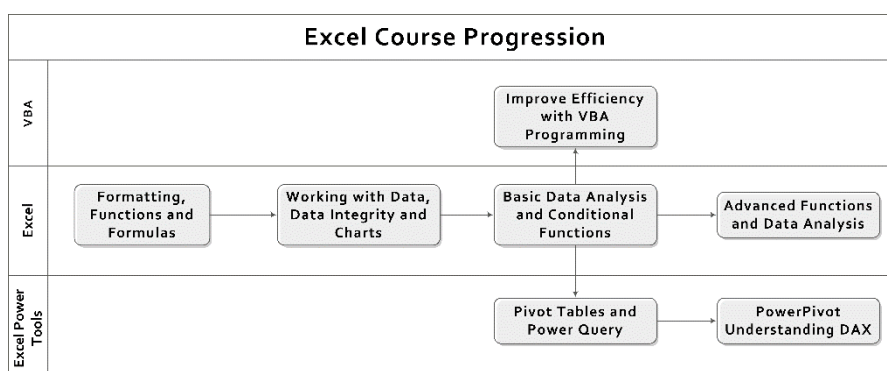
Excel - Basic Data Analysis and Conditional Functions

Duration: One day

Overview - Users should be competent and experienced in using basic functions within Microsoft Excel as this course builds upon the functions covered in the Introductory Course. More complex functions are introduced such as IF SUMIFS and COUNTIFS as well as then moving on to nested functions. PivotTables, scenarios and macros as well as other data analysis techniques are covered in this comprehensive and in-depth course.

Who Should Attend - Users should be competent and experienced in using basic functions in Microsoft Excel. The prime aim of this course is to introduce more complex functions and data analysis techniques.

Content

Working with multiple workbooks

➢ Linking workbooks
➢ Using formulas between workbooks
➢ Using the consolidation feature
➢ Viewing multiple workbooks
➢ Saving workspace

Using Advanced Database Features

➢ Use DCOUNT, DSUM, DAVERAGE, DMAX, DMIN functions to extract information from a list of data.
➢ Use advanced filter to produce complex searches
➢ Use advanced filter to copy data to another location
➢ Remove duplicates from a list.

Using Conditional Features

➢ Understand the IF function
➢ Use nested IF to overcome multiple options
➢ Using SUMIFS and COUNTIFS to extract data from lists of information

Working with Named Ranges

➢ Creating named ranges
➢ Using named ranges in formulas

Working with PivotTables

➢ Creating and modifying a PivotTable
➢ Formatting the data
➢ Understanding the data within a
➢ PivotTable
➢ Grouping dates
➢ Sorting and filtering data
➢ Creating PivotCharts

What If Analysis

➢ Creating different scenarios for quick comparison
➢ Viewing scenarios
➢ Use Goal Seek

Macros

➢ Recording simple macros
➢ Storing macros
➢ Running macros
➢ Customising Excel
➢ Using the Quick Access Toolbar
➢ Creating custom lists

Excel Course Progression
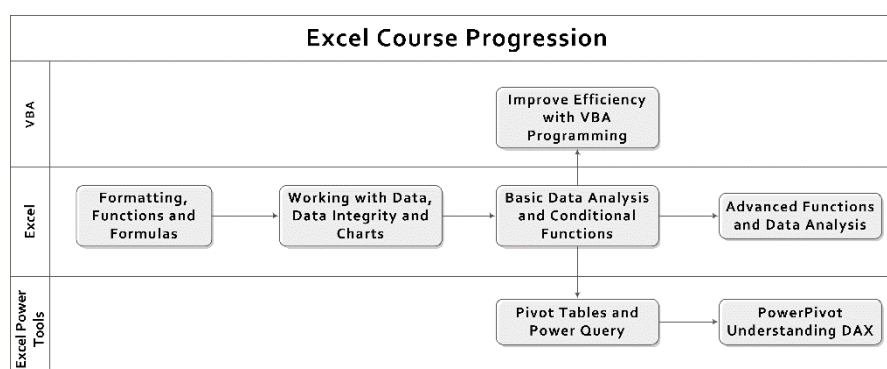
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Excel - Advanced Functions and Data Analysis

Duration: One day

Overview – This course builds upon the functions introduced in Advanced Excel Part 1, taking some elements of the functions to a higher level and introducing many new functions. The If function is expanded to included AND and OR elements and VLOOKUP with error functions are introduced.

Who Should Attend – Any user who has a sound knowledge of Excel wanting to expand their knowledge of the functions available. The aim of this course is to give the user a good overview of the many different types of functions available and the way many of them work together to produce powerful manipulative spreadsheets.

Content

Financial Functions

➢ Use functions to calculate monthly payment, interest payments and future values of investments using functions such as PMT, CUMIPMT and FV

Text Functions

➢ Extract data from text within your spreadsheets by using functions such as LEFT, RIGHT, MID, TRIM, UPPER, LOWER and REPLACE.

Using Logical Functions

➢ Make the IF function more powerful by incorporating AND or OR to allow different scenarios
➢ Nesting functions to remove error codes
➢ Using VLOOKUP, HLOOKUP in nested situation and with CHOOSE
➢ MATCH and INDEX

Data Analysis Tools

➢ Use Solver

Working with Data Tables

➢ Create multiple scenarios by creating data tables to extrapolate information
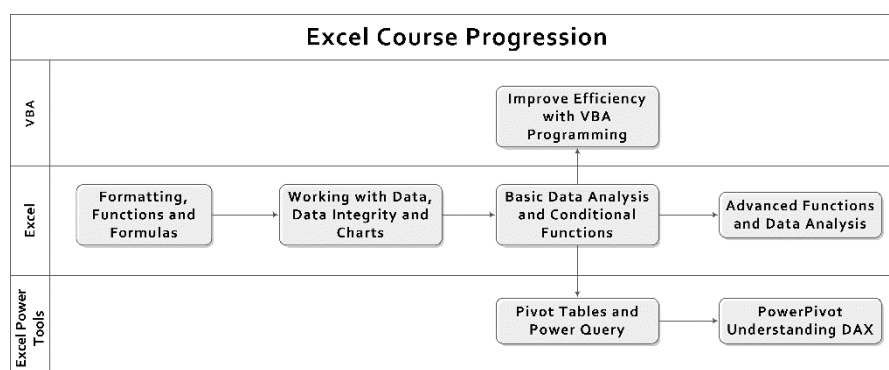
Conditional Formatting

➢ Highlight dates, ignore blank cells, show data quickly and clearly using formulas.

Other Functions

➢ Learn functions such ABS, ROUND, ROUNDUP, ROUNDDOWN, CEILING and FLOOR and use them nested in other functions

Using Date and Time Functions

➢ Use the various Date and Time functions on their own or nested in other functions to add versatility to your spreadsheet. WEEKDAY, DATE, NOW, TODAY, DATEDIF, EOMONTH and NETWORKWEEK amongst others.

Excel Course Progression

VBA		Improve Efficiency with VBA Programming	
Excel	Formatting, Functions and Formulas → Working with Data, Data Integrity and Charts → Basic Data Analysis and Conditional Functions →		Advanced Functions and Data Analysis
Excel Power Tools		Pivot Tables and Power Query →	PowerPivot Understanding DAX

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Excel – Improve Efficiency with VBA Programming

Duration: **One day**

Overview- This course will look at techniques to improve the efficiency of Excel users. The delegate will use both the macro recorder and the VBA screen to automate and speed up everyday tasks. The delegate will use combo boxes, drop down boxes and option buttons to automatically update fields based on the input criteria entered in other fields and then use macros to automate processes such as copying data and printing invoices. The user will also look at the visual basic code behind the application to rearrange or amend data within spreadsheets. The delegate will also create custom functions and write simple VBA to manipulate data imported into Excel.

Who Should Attend – Users should be competent users of Excel wanting to automate aspects of work within Excel

Content

Using the Macro Recorder

- ➢ Absolute and relative referencing
- ➢ Recording macros
- ➢ Running macros
- ➢ Assigning shortcuts to macros
- ➢ Creating macro buttons

Customising Excel

- ➢ Adding buttons to the QAT/menu
- ➢ Adding command buttons to the spreadsheet

Creating Custom Functions

- ➢ Creating user defined functions
- ➢ Storing user defined functions
- ➢ Using user defined functions
- ➢ Adding help messages

VBE Window

- ➢ Viewing VBA code
- ➢ Editing VBA code
- ➢ Using modules
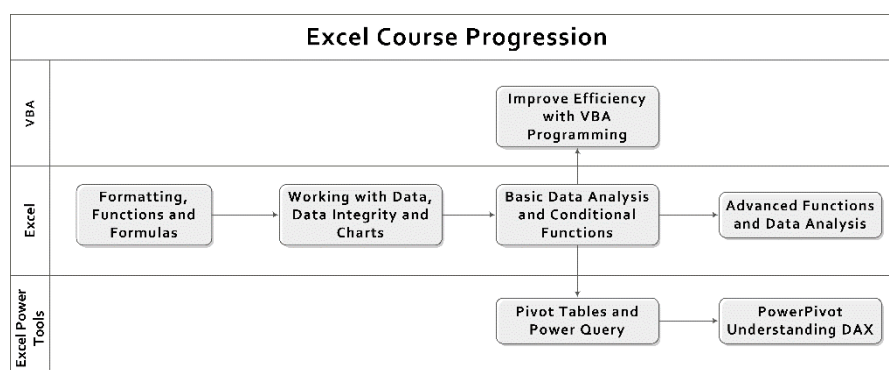- ➢ Indenting code
- ➢ Using comments
- ➢ Calling macros

Working with VBA code

- ➢ Working with variables
- ➢ Creating Dim statements
- ➢ Using formulas
- ➢ Manipulating columns
- ➢ Protecting and unprotecting spreadsheets with code
- ➢ Simple if else statements
- ➢ Simple Do Loop statements
- ➢ Using the offset commands
- ➢ Commands for printing
- ➢ Commands for formatting

User Forms

- ➢ Adding labels and text boxes
- ➢ Adding command buttons
- ➢ Adding combo boxes and check boxes
- ➢ Initialising a form
- ➢ Coding command buttons
- ➢ Opening and closing forms automatically
- ➢ Enabling the controls

Coding controls to manipulate and transfer

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Excel – Pivot Tables and PowerQuery

Duration: **One day**

Overview- This course gives an in-depth view of Pivot Tables fully explaining how to use all the aspects of the powerful tool. Delegates are then introduced to PowerQuery which is a feature that can very quickly reorganise, merge or manipulate data to get in a format for using a Pivot Table or just further work. PowerQuery can remember the process so when additional files are added, the new data is available to use saving considerable time and resources.

Who Should Attend – Users should have a good understanding of Excel and be in a position where they need to do more with their data and want to realise the full potential of Pivot Tables and save time getting data in a layout suitable for Pivoting.

Content

Pivot Table Essentials
- Layout and Limitations
- Data preparation
- Slicers and Timelines
- Refreshing Data
- Pivot Table Cache

Customising Pivot Tables
- Formatting Fixes
- Changing Report Layouts
- Working with Sub Totals
- Converting a Pivot Table to Values
- Changing Function Type
- Changing the Calculation Type

Grouping Sorting and Filtering
- Grouping Dates and Numeric Data
- Creating Bespoke Groups
- Sorting and Filtering
- Sorting with a Custom Group
- Special Filters such as Top Five
- Different Reports for different sort items

Calculated Fields and Items
- Calculated Fields and Items
- Modifying Calculated Fields or Items
- Deleting Calculated Fields or Items
- Changing the Order of Calculation
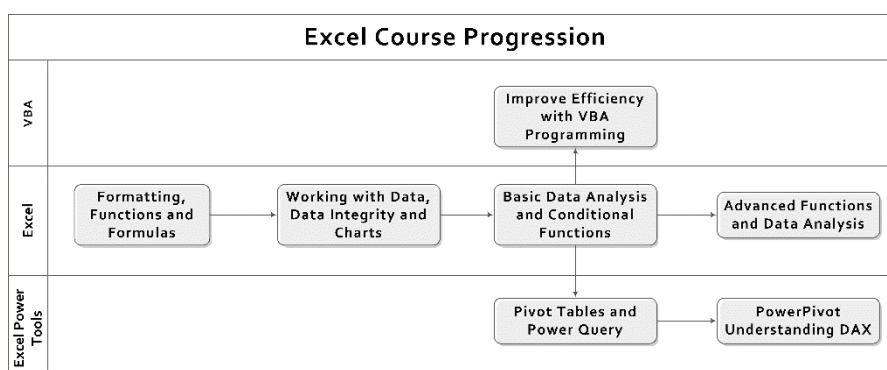
Pivot Charts and Conditional Formatting
- Creating Pivot Charts
- Formatting Pivot Charts
- Adding Slicers and Timelines
- Creating a Dashboard
- Using Conditional Formatting

Analysing Multiple Data Sources
- Using Multiple Consolidation Ranges
- Using the Internal Data Model
- Creating a Relationship
- Managing Relationships
- Adding/Removing Tables from the Data Model
- Creating Pivot Tables from an Existing Data Model

PowerQuery
- What is PowerQuery
- Advantages of PowerQuery
- Linking to a Database
- Linking Tables
- Filtering Data
- UnPivot data for better analysis
- Creating custom formulas
- Combining multiple files
- Creating a lookup file

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Excel – PowerPivot – Understanding DAX functions

Duration: **One day**

Overview- This course looks at the powerful DAX functionality that powers PowerPivot and works the user through many different examples to get the most from this Excel AddIn.

Who Should Attend – Users should have a good understanding of Excel and be in a position where they need to do more with their data and realise that the standard calculation features within Pivot Tables do not give enough flexibility.

Content

Introduction to DAX Measures
- SUM
- COUNT, COUNTROWS
- DISTINCTCOUNT

More Functions
- CALCULATE
- ALL
- ALLEXCEPT
- ALLSELECTED

Working with Multiple Data Sets
- Creating relationships
- Adding a Disconnected table
- FILTER

Time Intelligence
- Standard Calendars v Custom Calendars
- DATESYTD
- DATESMTD
- DATESQTD
- TOTALYTD
- FIRSTDATE, LASTDATE
- ENDOFMONTH, START OF YEAR etc
- CLOSINGBALANCEMONTH, CLOSINGBALANCEYEAR
- DATEADD, DATESBETWEEN

Conditional Functions
- IF
- SWITCH
- BLANK, ISBLANK
- DIVIDE
- HASONEVALUE

X Functions
- SUMX
- COUNTX, COUNTAX
- MAXX
- RANKX AND TOPN

Custom Calendars
- Linking to a Period Calendar
- Writing bespoke Time Intelligence formulas

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