



Analysis and Dashboards

Contents Overview – 1 day course

Our Excel Analysis and Dashboards course requires you to get your hands dirty. We work through multiple exercises so you can learn to master the tools of data modelling, analysis and building visuals for effective Dashboards. We complete the course by working through a Case Study pulling all the aspects we teach on the day together so you have a fully worked example to take back to the office.

- **Business Case Study** – You will start with raw sales data for a Comedy Roadshow. We model the data using PowerPivot, creating relationships and the necessary calculations to build our interactive Dashboard for assessing Sales performance and profitability across various cities.



Data Modelling

Starting a dataset in Excel
Multiple Tables
Data Modelling

Get & Transform

Using Get & Transform
Why Use Get & Transform
Understanding the Navigator Pane
Creating a New Query from a File
Creating a New Query from the Web
Understanding the Query Editor
Displaying the Query Editor
Managing Data Columns
Reducing Data Rows
Adding A Data Column
Transforming Data
Editing Query Steps
Merging Queries
Working with Merged Queries
Saving and Sharing Queries
The Advanced Editor

Power Pivot

Lists, Tables, and Relational Databases
The Excel Data Model
Power Pivot and The Data Model
Understanding Relational Data
Common Sense Data Modelling
Enabling Power Pivot
Connecting to a Data Source
Working with The Data Model
Working with Data Model Fields
Changing A Power Pivot View
Creating A Data Model PivotTable
Using Related Power Pivot Fields
Creating A Calculated Field
Creating A Concatenated Field
Formatting Data Model Fields
Using Calculated Fields
Creating A Timeline
Adding Slicers

Great functions for Analysis

Understanding Data Lookup Functions
Data Area

Calculation Area

Using CHOOSE
Using VLOOKUP
Using VLOOKUP For Exact Matches
Using HLOOKUP
Using INDEX
Using SUMIF
Using SUMIFS
Using SUMPRODUCT

Data Validation

Validation Criteria
Input Messages & Error Messages
Drop-Down Lists
Formulas
Customised Validation Criteria
Creating a Number Range
Validation
Testing a Validation
Creating an Error Message
Creating a Drop Down List
Using Formulas as Validation Criteria
Circling Invalid Data
Removing Invalid Circles



Analysis and Dashboards

Controls

- Understanding Types of Controls
- Understanding How Controls Work
- Preparing a Worksheet for Controls
- Adding a Combo Box Control
- Changing Control Properties
- Using the Cell Link to Display the Selection
- Adding a List Box Control
- Adding a Scroll Bar Control
- Adding a Spin Button Control
- Adding Option Button Controls
- Adding a Group Box Control
- Adding a Check Box Control
- Protecting a Worksheet with Controls

Using Sparklines to show trends

- What is a Sparkline?
- Types of Sparklines
- Showing Sparklines only
- Specifying a Date Axis
- Hidden Data and Sparklines
- Sparklines and Targets

Using Conditional formatting

- Using Conditional Formatting with a Dashboard
- Top 10 & Custom Formatting
- Data Bars
- Show data bars outside the data cell
- Colour Scales
- Icon Sets
- Creating Rules Based Icon Set
- Removing unnecessary icons
- Using Symbols in Reporting
- Using the Camera Tool

Pivot Tables

- Structure of Pivot Tables
- Using Compound Fields

- Counting in A PivotTable
- Formatting PivotTable Values
- Working with Grand Total
- Working with PivotTable Subtotals
- Finding the Percentage of Total
- Finding the Difference From
- Grouping in PivotTable Reports
- Creating Running Totals
- Creating Calculated Fields
- Providing Custom Names
- Creating Calculated Items
- PivotTable Options
- Sorting in a PivotTable
- Top and Bottom Views
- Date Grouping Options
- Hiding or Showing Data Items
- Conditional Formatting and Sparklines in Pivot Tables
- Pivot Caches and File Size

Pivot Charts

- Inserting A PivotChart
- Defining the PivotChart Structure
- Changing the PivotChart Type
- Using the PivotChart Filter Field Buttons
- Moving PivotCharts to Chart Sheets

Slicers in Reports

- What are Slicers?
- Creating Slicers
- Timeline Slicer
- Renaming Pivot Tables
- Using a Slicer on Multiple Pivot Tables

Trending Charts

- Why do we use Trending Charts?
- Appropriate Chart Types for Trending
- Vertical or Y-Axis Scales
- Chart Titles linking to a Cell
- Comparative Trending

Labelling

- Using a Secondary Axis
- Formatting Key Data Points
- How to display Actuals and Forecasts
- Averages and Data Smoothing

Other Report Charts

- Top and Bottom Charts
- How to show Top or Bottom Values in Data Labels
- Waterfall Charts

Histograms

- Creating Histograms using Formulas
- Creating Histograms using Pivot Tables
- Creating Histograms using Excel's Statistical Charts

Charting performance against a target

- Performance against Targets
- Creating Thermometer Charts
- Bullet Graph

Defining Dashboards

- Purpose of a Dashboard
- Working out what is needed
- What are the data sources
- Will the audience need further data to drill-down to?
- How often will/can the data refresh?
- Does it need to be maintained?
- How easy will it be to maintain?

Dashboard Design Principles

- Thirteen common mistakes in dashboard design



Analysis and Dashboards

Making an Interface

- Using Macros with Dashboards
- Recording a Macro
- Navigation using Macros
- Macros to Change Chart types
- Macros and Pivots
- Form Controls with Dashboards

Pulling it all together

- Case Study – Build a Dashboard from raw data to finished product.