

Excel 2007 - 36 hour Masterclass

Overview and Objectives

This series of twelve, three-hour sessions focuses on a broad range of areas of Excel, each lesson dealing with a few related topics in depth.

The intention is that someone attending the full course would gain a very thorough knowledge of the breadth of capability of Excel, and the ability to use the application to its full extent.

Not all users would need use all of these features on a daily basis, of course, and many will already have a good grasp of some of the more basic level topics. It is likely that many users will benefit from attending at least half of the sessions, starting at the most appropriate point for their existing skill level. In general, later sessions will depend on some or all of the skills gained in previous ones, particular cases are highlighted in the notes.

Topics to be covered

Session name	Main features / functions covered	Notes
1) Foundation	<ul style="list-style-type: none"> • Excel's interface and user options • Spreadsheet basics: workbooks, worksheets, cell references • Introduction to text, number and date formats. • Formats for rows, columns, cells – use fonts, borders, shading for clear presentation • Creating a basic formula using simple mathematical operations and SUM function • Changing page setup before printing 	All sessions assume the attendees have general Windows skills and are familiar with opening, saving and printing files and applying basic formatting to text.
2) Essential Functions	<ul style="list-style-type: none"> • Using Autofill and Fill Series, making sure relative and absolute references are correct (using \$) • More summary functions: COUNT (et al), AVERAGE • Rounding things off (ROUND, FLOOR, CEILING) • Logic functions, True/False, IF, OR, AND • Dates & Times in Excel and calculating with them 	

3) Sorting, filtering, subtotals and Tables	<ul style="list-style-type: none"> • Sorting and filtering based on data and colours • “Smart Filters” and Advanced filters • Removing duplicate data entries • Grouping Worksheets • SUBTOTAL functions and Subtotal feature • Tables: their uses, features and formatting • Formulas involving tables 	Requires key skills of lessons 1 and 2 (or equivalent knowledge and experience).
4) More advanced functions	<ul style="list-style-type: none"> • Conditional summary functions (SUMIF, COUNTIF) • “Database” functions (DSUM, DCOUNT, and more) • SUMPRODUCT • Custom number formats • Mixing relative and absolute references 	Requires key skills of lessons 1 and 2. Does not depend directly on lesson 3.
5) Finding data using lookup formulas	<ul style="list-style-type: none"> • Basics of lookup functions • LOOKUP, HLOOKUP, VLOOKUP compared • Categorising data into groups using lookups • MATCH and INDEX • OFFSET and INDIRECT • Catching errors (not just for lookup functions, but especially important here) 	Requires skills from 1 and 2. Does not depend on 3 or 4, but examples may use Tables as the source for Lookups.
6) Using defined names	<ul style="list-style-type: none"> • Using Names in place of cell references • Defining a name using the Name box • Adding or editing names using the Name Manager • Choosing the right scope • Creating names from existing headings • Using explicit names for constants and fixed ranges • Formulas in names, building dynamic ranges • Using implicit names for flexibility; intersections 	Makes use of the “OFFSET” function covered in lesson 5 .
7) Introduction to Pivot Tables	<ul style="list-style-type: none"> • What is a Pivot Table and why would you use one? • Arranging source data properly • Creating a Pivot Table, choosing a layout • Refreshing data, understanding the Pivot Cache • Drilling down to see the detail • Using report filters and field filters to hide items • Changing the layout of a Pivot Table • Formatting areas of the Pivot Table • Creating a Pivot Chart, editing and formatting • Advantages and Limitations of Pivot Charts 	Does not require any of the preceding lessons specifically, but attendees would be expected to have equivalent experience.

<p>8) Do more with Pivot Tables</p>	<ul style="list-style-type: none"> • Pivot Table options, layout, totals, display etc. • Category field settings • Value field settings, show values relative to... • Sorting and grouping • Copying pivot tables – benefits and problems • Calculated fields; calculated items • Reporting from pivot tables with GETPIVOTDATA 	<p>Thorough grasp of the concepts covered in lesson 7 is essential. Tables from lesson 3 and “dynamic ranges” from lesson 6 will be used as data sources.</p>
<p>9) Formatting, validation and Data Visualisation</p>	<ul style="list-style-type: none"> • Conditional formatting to find patterns or outliers • Using data validation to guarantee correct input • Copying formats: Format Painter vs. Paste Special • Copying and pasting pictures of a spreadsheet • Using cell locking and sheet protection to prevent user errors and create simple forms • Consistent formatting using cell styles 	<p>Data validation used here will depend on lesson 6 “dynamic ranges” techniques.</p>
<p>10) Simple charts</p>	<ul style="list-style-type: none"> • Choosing the correct chart type to begin with! • Choosing & arranging your data, inserting a chart • Design ribbon: change basic properties & layout • Layout ribbon: more granular changes to elements • Format ribbon: styles, colours and more • Adding more data to your chart • Mixing chart types on two axes 	
<p>11) Advanced charts</p>	<ul style="list-style-type: none"> • How to cheat at charts – overview of some techniques for adding more “value” to your charts • Understanding layering order for series • Showing context eg targets, or historical ranges • Using indirect data for a variety of techniques: <ul style="list-style-type: none"> ○ “conditional formatting” of bars and lines ○ highlighting selected data points ○ coloured backgrounds to show target range • Leaving gaps • Cumulative totals, possible ways to display them • Saving chart templates for re-use 	<p>Dynamic charts will depend on lesson 6 “dynamic ranges” techniques. Formatting axes will use custom number formats from lesson 4.</p>
<p>12) Analysis Tools & spreadsheet auditing</p>	<ul style="list-style-type: none"> • What-if analysis, scenarios, data tables – try different values to see what the outcome is • Goal seek – find what input would be needed for output you want to achieve • Using the Watch window • Tracing precedents and dependents • Evaluating a formula step by step • Finding different cell content types: GoTo > Special • Using data validation on existing or imported data 	<p>While this lesson does not depend directly on the previous lessons, it will be most valuable for advanced users who need to analyse data (rather than simply reporting on it) and correct problems with spreadsheet models.</p>